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Surgery of the Colon

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COLON surgery, to most people, means cancer of the colon, with colostomies, liver secondaries, obstructions, etc. One admits that more operations are performed for colon cancer than for any other colon condition, but attention will be directed in this paper to conditions which are on the border-line between medicine and surgery, to conditions which may be relieved by medical measures or by simple and safe surgical technique. One refers to the various colonic deformities, which include the dolichocolon, to the granulomatous diseases (tubercle, actinomycosis, syphilis, and non-infective granuloma), to megalocolon, and to affections of the appendices epiploicæ.

It is possible that these minor conditions may some day prove to be factors in the etiology of cancer.

Before embarking on the rather dull facts of anatomy, pathology, and technique, a weakness in our diagnostic abilities might be stressed—our inability to recognize or even suspect early colon cancer. All the world over, published figures tell the same tale—that fifty per cent. of all colon cancers, when admitted to a surgical ward, are fit only for palliative treatment. Whilst some of these have failed to consult any medical practitioner, others might reasonably reproach the profession.

Improvement in appendicular diagnosis has been marked during the past few years, with the result that most cases are subjected to operation in the very early stages. Appendicular mortality is falling to below five per cent. May we not hope for some improvement in our colon diagnosis? The prognosis in colon cancer is not absolutely hopeless. Even with only half the cases fit for radical excision, ten out of every hundred colon cancers are alive and well five years after detection. Detection at an earlier stage would lead to a marked improvement in the number of five-year cures.

Anatomy.

It is very unfortunate for the student that clinicians still disagree on colon nomenclature, since he must be prepared to hear the colon described in at least four different ways. The result is that very few students know any one method, and they usually err in giving one a mixture of two methods.

The simplest terminology is right and left colon. There is something to be said for it, since surgeons speak of a right and left colectomy, and surgical diseases of the right colon differ from those of the left colon in signs, symptoms, and treatment. Furthermore, the functions of the two portions would appear to be somewhat different, the right colon being digestive and absorbent, whilst the left colon lubricates and stores the fæces. This simple terminology, however, is quite inadequate for the description of surgical technique, surgical pathology, or the complicated course and relations of the colon.

The next description in order of simplicity is the British revision of the B.N.A., which describes cæcum, ascending colon, transverse colon, descending colon (terminating at the brim of the true pelvis), and pelvic colon. The B.N.A. uses sigmoid colon instead of pelvic colon, and this word 'sigmoid' appears in the word 'sigmoidoscope.' This nomenclature refuses a special name to that very important section of the large intestine—the iliac colon, the portion of bowel extending from the highest point of the iliac crest, on the left side, to the brim of the true pelvis, and if one uses this term, the descending colon is made to terminate at the highest point of the iliac crest. The iliac colon is the palpable portion of the whole left colon, may be the seat of dolichocolon, is a common site for cancer and diverticulosis, and may show abnormal peritoneal attachments. These peculiarities would appear to make it worthy of a special name, but apart from these considerations it is too well established in the literature to be discarded or ignored.

Abnormalities of the Colon.

Under this heading may be described abnormal peritoneal attachments, transposition of viscera, and the different varieties of dolichocolon.

Abnormal peritoneal attachments :—

Ascending Colon—

a. Possesses a mesentery and is mobile.

b. Parieto-colic folds attaching it to the lateral abdominal wall.

c. Connected to the proximal third of the transverse colon by a peritoneal membrane.

Transverse Colon—

a. The transverse mesocolon is abnormally short, but shows the normal attachments.

b. The transverse colon is adherent to the posterior abdominal wall, crosses the abdomen below the root of the mesentery, and lies behind the coils of small intestine.

c. The terminal six inches of the transverse colon ascends vertically, and is attached to the posterior abdominal wall by a peritoneal fold.

Pelvic Colon—

a. The pelvic colon lies anterior to and is adherent to the iliac colon, so as to form a triple-barrelled arrangement.

b. The two limbs of the pelvic colon-loop, close to the posterior abdominal wall, are approximated by a peritoneal membrane.

Dolichocolon.—Any portion of the colon may be the seat of elongation, but the pelvic colon is the part most frequently involved. The condition may be discovered in the dissecting-room, in the post-mortem room, on the operating-table, or as the result of an X-ray examination. Whilst one has recognized the anatomical condition for the past thirty years, it is only quite recently that the clinical significance of the condition has been impressed upon one. A recent monograph by Chiray, Lomon, and Wahl, giving a clinical description of a large number of cases, drew one's attention to the applied anatomy, and enabled one to recognize a number of recent cases and to realize that some old cases were really suffering from this deformity.

In describing the condition, it will be simpler to look upon the right colon as a unit, since in these conditions one is unable to define the junction of ascending and transverse colon. I have illustrations and notes on two cases of right dolichocolon discovered in the dissecting-room in the year 1909. One was a triple-barrelled arrangement with the limbs running vertically, and the other was a triple-barrelled arrangement with limbs running obliquely across the abdomen. In both cases the limbs were adherent to each other and there was no clinical history obtainable.

These cases and some of the abnormal peritoneal arrangements of the colon are illustrated in "Some Factors Influencing the Position of the Small Intestine" (*Journal of Anatomy and Physiology*, vol. —). The splenic flexure may be the seat of some redundancy which may readily obstruct the passage of gas, and looping of the descending colon is occasionally met with.

The iliac colon may show a mobile elongated portion designated iliac dolichocolon, and in some cases this unites with the pelvic colon to form one long mobile loop.

The most interesting form is where the pelvic colon is involved. Chiray, Lomon, and Wahl define as abnormally long the pelvic colon which ascends above the highest point of the iliac crest, and it is also possible to have an elongated pelvic colon so tethered by its peritoneal attachments that it is retained in the pelvis.

Examination of the Patient—History.

Abdominal Pain.—Intestinal colic is caused by distension of the muscular wall of the bowel, which acts by traction on the mesentery or is possibly a special type of pain conveyed by the sympathetic. It is a spasmodic umbilical pain which radiates in different directions according to the portion of bowel involved: to the right, in disease of the cæcum or ascending colon; to the left, in diseases of the descending, iliac, or pelvic colon; and into the hypogastrium where the transverse colon is involved.

Colic may be temporary and due to some error in diet, to a chill or a transient

constipation, or it may be an indication of very serious intestinal disease. Sooner or later surgical diseases of the colon give rise to colic, but one is sometimes astounded at the advanced bowel changes which can exist with complete absence of pain. One patient had a carcinoma of the iliac colon which obstructed the bowel and led to enormous distension of the cæcum and ascending colon. The cæcum filled the whole pelvis, and yet there was only a three-weeks history of pain. Some patients complain of a constant pain in one region. This may be due to involvement of the parietal peritoneum, and one has also seen it over a much distended cæcum.

Colonic disease or deformity may produce a type of pain which is suggestive of a lesion of another viscus. It is not uncommon to find a cancer of the right colon treated for some months as a stomach lesion, and it is said that a dolichocolon can simulate disease of the stomach, gall-bladder, or kidney.

The Stools.—Slight change from the normal is said to be the earliest sign of colon cancer. It may take the form of diarrhœa or constipation, or alternation of the two conditions. Many other diseases can, of course, produce a similar sign. An acute colitis may leave a sensitive colon for many years, so also can a change of diet or climate. A dolichocolon may produce alternating diarrhœa and constipation, but there will be a history of this condition over several years. Diarrhœa following a meal may be due to a sensitive colon or may be due to a gastro-colic fistula.

The presence of red blood indicates a lesion distal to the splenic flexure, and strikes terror in the heart of the patient and doctor. If persistent it may mean a cancer of the lower colon, but if temporary it may be due to a colitis, an ulcer (tubercular or traumatic), or dolichocolon.

Tumour.—This must be included in the history, since it may be recognized first by the patient, and the presence of a palpable tumour may be the cause of the patient's visit to the doctor. If so, it usually involves the right colon, since left colonic tumours give rise to obstruction before they are palpable to the patient. Anæmia, loss of weight, loss of strength, loss of appetite and energy are features of colon cancer and gastro-colic fistulæ.

Colon Palpation.—This is one of the most important parts of colonic examination, since a considerable portion of the normal colon is palpable, and abnormalities in these palpable portions are readily recognized. A tumour in a portion not normally palpable may be felt also.

In order that a segment of normal colon should be palpable, it must be fixed or capable of being fixed, and it must lie upon a firm background. The iliac colon, the cæcum or ascending colon, and those parts of the transverse colon which can be fixed against the inner margin of the psoas or vertebræ, fulfil these requirements. The fæcal mass collected proximal to a stricture may be palpated, and will indicate the site of the obstruction.

Colon palpation may be used as a control in X-ray interpretation, and will help in evaluating the doubtful filling effect. One cannot over-emphasize the importance of the tactile sense in colon diagnosis. The first exercise should be the iliac colon, which is palpable (to the expert) in almost a hundred per cent. of normal abdomens.

Proceed then to the ascending colon, which owing to its flabby condition is not so distinct, and finally as a maestro attempt the transverse colon.

X-rays.—There are four different methods of examining the colon by X-rays: the clear picture, the opaque enema, injecting air into the colon after evacuating the opaque enema, and the opaque meal. Methods 1 and 2 are the most instructive. I have no experience of method 3, and the opaque meal is mainly of value in the right colon.

The clear picture is a most rapid and dramatic method of determining the presence or position of a colonic obstruction. It maps out the gas accumulated proximal to the stricture and outlines the head of the gas column. The normal colon shows merely gas bubbles at the right and left colic flexures, or a few scattered bubbles in the ascending or pelvic colon. In lower colon obstruction the whole abdomen is filled with gas, and one may see an enormously distended transverse colon and the head of the gas column stopping at the stricture. In this way one *may distinguish between small and large bowel obstruction.*

The opaque enema fills normally the whole colon. In the presence of an impassable stricture, the advancing head of the enema is held up by the obstruction and balloons out the distal bowel. In the presence of a passable stricture or tumour it shows a filling defect. It may also show dolichocolon or diverticulosis.

The opaque meal is of most value in showing up disease of the cæcum and ascending colon by means of a filling defect.

Dolichocolon.

It is important that one should recognize the possibility of this condition being present in a case, since, in addition to colon symptoms, it may simulate disease of the stomach, gall-bladder, or appendix. Its three main symptoms are:—Constipation, distension of the colon with gas, and attacks of colic. Attacks of diarrhœa with or without blood are found in some cases.

According to Chiray, Lomon, and Wahl, the treatment should be medical, and consists mainly of tri-weekly enemas of boiled water (one litre) with suitable laxatives. My own feeling is that excision of the elongated loop is of great benefit in certain cases, and that in other cases permanent relief may be obtained by the division of a peritoneal fold plus the mobilization of the adjacent limbs of the loop. Apart from numerous cases seen in the dissecting-room, one has met with the following cases clinically:—

Case 1.

Rodney Adamson, boy aged 3, seen with Dr. Smyth and Dr. Allen. *History.*—Has always been constipated. For the last four weeks the abdomen has been hard and distended and there has been vomiting. For the last two weeks vomiting daily after breakfast. *X-ray.*—Great distension of the colon with gas. Opaque enema outlines pelvic dolichocolon, and the head of the enema is held up at the brim of the true pelvis. *Operation.*—There was a large mobile loop consisting of pelvic colon and a portion of iliac colon. The limbs of the loop near the posterior abdominal wall were connected by a fold of peritoneum. This fold was divided and the adjacent portions of the iliac and pelvic colon mobilized. *Post-operative Course.*—An opaque enema passed up to the cæcum, and there was no abnormal gas collection. The report three months later shows complete freedom from all signs and symptoms. Similar report one year later.

CASE 2.

W. McC., aged 65, seen with Dr. Shane. *History.*—For many years had been subject to attacks of diarrhœa. For the past year has had recurrent attacks of watery stools (two a day), normal stools intervening. *Examination.*—A thirty-ounce opaque enema was taken freely, but some blood was passed. The radiogram showed that the entire enema occupied a very extensive pelvic dolichocolon.

Two months later the patient was admitted to a nursing-home with signs of intestinal obstruction. There had been no motion for two weeks, and the abdomen was tight and distended. Enemas were given, flatus was passed subsequently, and the abdominal distension gradually subsided. Enemas produced good results, and after six days the bowels acted naturally and the abdomen appeared normal. A few days later, at operation, one found a very long dilated, hypertrophied pelvic colon, and the inverted U-shaped loop was rotated contra-clockwise through 180 degrees. Most of the loop was resected and the canal restored by a lateral anastomosis.

Follow-up.—The patient died three years later from uræmia, but had no post-operative bowel trouble.

CASE 3.

Miss A., woman aged 57, seen with Dr. Hadden. Ten years ago passed blood per rectum. One year ago consulted the doctor for constipation. Two months ago began to pass blood and mucus and to have diarrhœa. Stools, three or four per diem. No loss of weight. Appetite poor. No pain. Has always been troubled with constipation.

Opaque enema and X-ray shows a pelvic dolichocolon. The loop ascends as high as the splenic flexure. Patient treated with enemata.

Follow-up.—Free from symptoms.

CASE 4.

Miss A., aged 46, seen with Dr. Fulton. *History.*—Healthy up to six months ago, when she began to have indigestion (epigastric pain and heartburn) and attacks of pain in the right iliac fossa accompanied by nausea. Three weeks ago was awakened by a severe abdominal pain which shot into the rectum and lasted for ten minutes. *Examination.*—Some tenderness in the right iliac fossa. Opaque enema and X-ray shows a pelvic dolichocolon. Opaque meal shows a normal appendix. *Treatment.*—Enemas and semproline with phenolphthaline.

Follow-up.—Complains of some indigestion.

CASE 5.

A. P. Vallely, man aged 48, Royal Victoria Hospital. *History.*—For three months has complained of constipation, abdominal swelling, and colic. *Examination.*—Abdomen distended, tender in left iliac fossa; opaque enema shows an iliac dolichocolon. *Operation.*—The iliac colon was much elongated, and showed a mobile loop, and there was kinking at the junction of the mobile and fixed portions. Peritoneal bands fixed these junctions to the iliac fossa. The bands were divided, and the bowel mobilized so as to convert the mobile iliac loop and the pelvic colon into one loop.

Follow-up.—Condition improved.

CASE 6.

Kielty, male nurse. Royal Victorial Hospital. Pelvic dolichocolon with dyspeptic symptoms for five years. Admitted as a duodenal ulcer.

All symptoms disappeared after tri-weekly enemata.

Sympathectomy for Megalocolon and Constipation.—Much work has been done, of recent years, on the effects of sympathectomy in Hirschsprungs disease. The distension and dysfunction appear to result from a disturbance of the autonomic supply of the gut—an imbalance between the sympathetic and the parasympathetic innervation.

It is evident from the many published cases that remarkably good results have been obtained, but it seems clear that a good result can be expected only in those cases in which there is still a sufficiently normal colonic wall capable of response to the altered innervation. Hence the operation is specially indicated in children. In the older patients, in whom gross secondary changes have ensued and the wall of the gut has become thickened, stiff, and fibrosed, sympathectomy cannot yield completely satisfactory results. An operation designed to break the sympathetic and conserve the parasympathetic supply is physiologically the most sound, and this can be achieved by dividing the rami which pass from the first and second lumbar fianglia to the aortic plexus on both sides. They are easily reached on the left side, but on the right side they lie behind the inferior vena cava.

A similar operation has given good results in chronic constipation.

Short Circuit for Severe Constipation.—This operation is occasionally mentioned by writers, but only to be condemned. My own experience is limited to one case—an emaciated, constipated drug addict. At the end of eighty-four hours the transverse colon was still loaded with opaque meal. The transverse colon was anastomosed to the pelvic colon with remarkably good results. Her constipation was cured, she gave up drugs, put on weight, became a qualified nurse, and remains in good health twenty years after the operation.

Appendices Epiploicæ.

A few months ago a stout female was admitted to the ward as a case of appendicitis. She was tender and rigid in the right iliac fossa, and complained of pain. Operation revealed a normal appendix, but two swollen and inflamed appendices epiploicæ attached to the anterior aspect of the ascending colon. They were ligatured at the base, removed, and sent to Professor Young, who reported that they contained B coli. On looking up the literature, one found that the condition, though rare, had been reported. Rankin in the Mayo Clinic has had one case. Other pathological conditions described are torsion, adhesion to other structures leading to obstruction and complete detachment with the formations of loose intraperitoneal bodies.

Granulomatous Diseases.

These include tubercle, actinomycosis, syphilis, and non-specific infective granuloma.

Tubercle is found in two forms—the ordinary ulcerative type and the hyperplastic form in which there is formation of fibrous tissue around the entire circumference of the bowel. It is a slow process, and on the proximal side there are hyperperistalsis, gurgling, and splashing. Surgical intervention in the ulcerative type is confined mainly to the treatment of such complications as obstruction or abscess, but the hyperplastic type is an ideal condition for surgical treatment, and gives excellent results with a colectomy. In both these types the terminal ileum and cæcum are most commonly involved (eighty-five per cent.).

The operation consists either of a short circuit or a resection, the latter giving a much higher percentage of good results.

The following resection results are given by Rankin, Bargen, and Buie :—

Number of cases	50
Operation deaths	4
Deaths within one year	5
Deaths in second year	4
Deaths in sixth year	1
Number living	36
Number perfectly well	17

The short-circuiting results are not so good, but this was reserved for the more serious cases :—

Number of cases	15
Operation deaths	0
Deaths in one year	6
Perfectly well	1
Improved	6
Not traced	2

The following case of hyperplastic tubercular disease of the cæcum was subjected to right colectomy seventeen years ago, and is now in perfect health :—

RIGHT COLECTOMY SEVENTEEN YEARS AGO FOR HYPERPLASTIC TUBERCULOSIS OF CÆCUM.

WOMAN AGED 27.

Symptoms.—Failing in health for one and a half years. For two years had a monthly pain in the right groin, which preceded the period. For two weeks had pain in the right side of the abdomen after walking, and aggravated by food at times.

Operation.—Right colectomy. Cæcum enlarged and thickened. Adherent to posterior abdominal wall. Appendix could not be found. Microscopic examination shows giant cells.

Present Condition.—Looks very well, and has put on weight. Not anæmic-looking. Bowels regular and no aperient required. Looks after the house, and is fit for all ordinary work. Recent twinges of pain in right iliac fossa. Had congestion of right lung one year ago. Nothing abnormal can be detected on examination, apart from the abdominal scar. Lungs normal.

Non-specific infective granuloma is an inflammatory form of hyperplasia for which no specific cause can be found. There would appear to be three predisposing factors for this condition :—

1. Conditions existing within the alimentary canal or in its mesentery, such as a pre-existing colitis.
2. Extra-peritoneal infections which spread to the bowel.
3. Trauma, such as ligatures or gauze left behind.

In the consideration of colon tumours, malignancy must have first place, tuberculosis second place, and only when these and other specific infectious processes have been ruled out should the diagnosis of non-specific granuloma be made. It is this condition which is the most frequent explanation of those so-called malignant tumours which miraculously disappear after a short circuit or an open drainage.

The following case is a recent example of this condition, but the true nature of the lesion was not learned until Professor Young had examined the specimen.

CASE OF NON-SPECIFIC INFECTIVE GRANULOMA.

C. McW., WOMAN AGED 58. Royal Victoria Hospital.

Previous History.—Rheumatic pains for five years. Finger-joints stiff.

History of Present Affection.—Three months ago took severe pain in the epigastrium, which gradually spread over the whole abdomen and had no relation to food. Loss of appetite, vomiting, diarrhœa, and swelling of the abdomen were present.

Examination.—The whole abdomen was somewhat tender, and the six-hour opaque meal showed only a thin opaque streak in the region of the ascending colon. An opaque enema showed two slight hour-glass contractions in the ascending colon.

Operation.—Pathology: The terminal ileum was dilated, hypertrophied, showed a mesenteric diverticulum near the cæcum and a few gelatinous-looking nodules on its surface. There was palpable thickening of the valvula coli, some enlarged mesenteric glands, and the mesentery was loaded with fat.

As one could not exclude an early carcinoma, a right colectomy was performed, and the following additional pathology disclosed:—

(*a*) A walnut-sized polyp on the colonic margin of the valvula coli.

(*b*) Some scarring of the mucous membrane of the valvula coli.

(*c*) Ileal polyposis.

Subsequently Professor Young reported that the polyps were in reality lipomata, and that there was no evidence of malignant disease or tubercle.

The patient made a good recovery from her right colectomy.

POLYPOSIS.

The outstanding symptoms of this condition are pain, diarrhœa, and the passage of blood and mucus. Malignant change is common, and develops in about fifty per cent. of the cases. Obstruction due to blockage by a polyp or to intussusception or to malignant change is occasionally seen.

The condition appears in two forms, one type appearing in youth, affecting the whole colon, and showing a familial tendency, and a second type appearing in adult life, more localized and usually secondary to some chronic inflammatory condition.

Treatment consists of resection of the localized variety, and three-stage colectomy or palliative measures for the generalized type.

CANCER.

The following figures are the colon cancers which one has operated on in the Royal Victoria Hospital and in private. I am indebted to my resident pupils, Mr. Shaw and Mr. McLaughlin, for the collection of the cases from the records of the Royal Victoria Hospital. The subsequent history of the cases was obtained.

Number of cases	29
Colostomies	14 (6 died in hospital)
Short Circuits	2 (1 died in hospital)
Excisions	13 (4 died in hospital)

Excision mortality: thirty per cent.

Follow-up.—Of the nine excisions who survived operation, four are still perfectly well. One of these was operated on in 1931, one in 1932, and two in 1934. The remaining five excisions are dead. One lived four years, one lived three years, two lived two years, and one lived one year.

The following figures are given for comparison :—

Miller gives the history of a hundred colon cancers taken consecutively from his hospital—

50 suitable only for palliative treatment.
17 excision deaths.
23 excisions died within five years.
10 living at the end of five years.
Operation mortality : thirty-four per cent.

Rankin (Mayo Clinic)—

150 right colectomies for cancer.
Operation mortality : twelve per cent.
43 living at the end of five years.

Mayo Clinic—

333 left colectomies for cancer.
54 operation deaths (sixteen per cent. mortality).
71 untraced.
105 dead.
103 living (duration not stated).

Middlesex Hospital—

1925-8 : 43 colon excisions for cancer.
14 operation deaths (thirty-two per cent. mortality).
9 living in 1934.

Colon cancer is a most insidious disease, and in spite of all advances in diagnosis the general surgical experience is that fully fifty per cent. of cases arrive in surgical hands too late for a radical operation. Secondaries, involvement of adjacent organs, old age, and poor condition are the causes of inoperability. Serious complications which increase the mortality of excision are obstruction, pus, intussusception,and adhesion to other organs, and finally there are certain difficulties in colon surgery such as poor blood supply, thin bowel wall, incomplete peritoneal covering, fat appendages, and septic contents, which operate against a water-tight junction free from obstruction. The beginner in colon surgery is faced with innumerable problems—

Should he do a side-to-side, an end-to-end, or an end-to-side anastomosis?

Is he to attempt a one-stage operation with a short stay in hospital, or should he adopt the two- or three-stage method of operating with a long stay in hospital and several temporary fæcal fistulæ on the abdominal wall?

Which of the various sewing-machines or complicated clamps should he purchase?

If he makes a colostomy for temporary drainage, will he ever succeed in closing it again?

Must he divide the bowel with a cautery, or will the old-fashioned knife do perfectly well?

Is an aseptic anastomosis necessary?

These are all very interesting points, and I regret that I am unable to give the world's decision. Personally, I am beginning to see a little more light, and my present creed is as follows :—

I use the side-to-side anastomosis.

I believe in a one-stage right colectomy, but am prepared to try a two-stage technique where the case demands it. First stage—division of ileum, closure of both ends, anastomosis between transverse colon and proximal end of ileum. Second stage—right colectomy.

No special colon clamps, crushers, or sewing-machines are essential for an efficient anastomosis. Careful sewing of the uncrushed sero-muscular and mucous layers gives a good result.

There is no advantage to be gained by dividing the bowel with a cautery if you are running the stitches into the lumen of the bowel.

The closure of a cæcostomy is a simple operation, and gives an excellent result so long as the distal canal is patent.

The closure of a colostomy is not so simple, and may require several efforts and a long period of time. The spur may be crushed, or the œdematous edges of the mobilized colostomy trimmed away, and may be united as an end-to-end anastomosis (Duval's operation).

Rankin's obstructive resection for left colectomy gives a low operation mortality The pathological loop of colon is mobilized, brought out of the abdomen, amputated, and the attached ends controlled by Rankin's double clamp. The proximal colon-end is released in two days, whilst the distal end is controlled for seven days. The resulting colostomy is subsequently closed by the application of an enterotome.

I am not yet satisfied about this question of aseptic anastomosis. Do we lose our patients by a little fæcal leakage? or is Haberer right in maintaining that the patient dies from intestinal obstruction owing to a temporary block at the site of anastomosis? To obviate this he inserts a safety-valve tube proximal to the junction.

I am much impressed by Devine's defunctioning operation, and hope to give it an extended trial. It is not a new principle, since it has formed an essential part of the Mummery operation for perineal excision of the rectum for many years. By chance one practised this method some years ago in curing a large cæcal fistula in a child aged six years. At the first operation the ileum and transverse colon were divided, the ends closed, and the proximal ileum anastomosed to the distal transverse colon. This left an isolated right colon which could drain its mucus through the cæsal fistula. Some months later the right colon was removed without the slightest reaction.

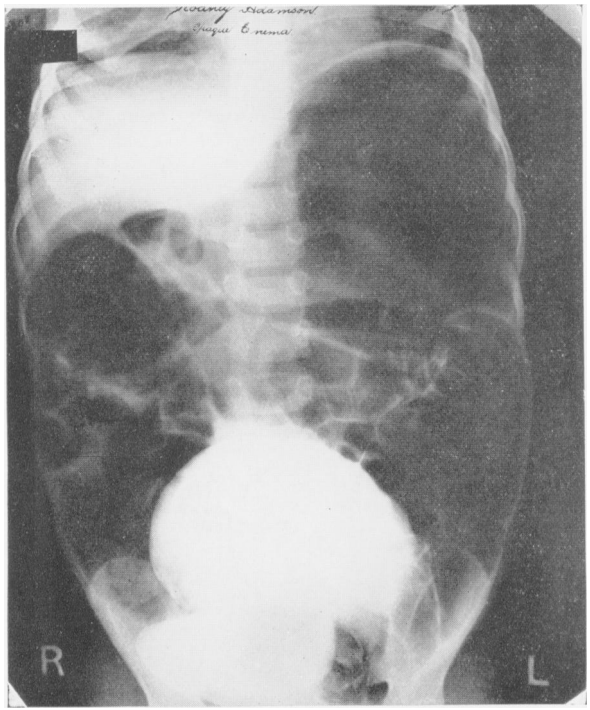

FIG. 1—Rodney Adamson, aged 3 years.

Radiogram of opaque enema before treatment. Note the distension of the abdomen with gas. The opaque enema fills a pelvic dolichocolon, but has not entered the iliac colon.

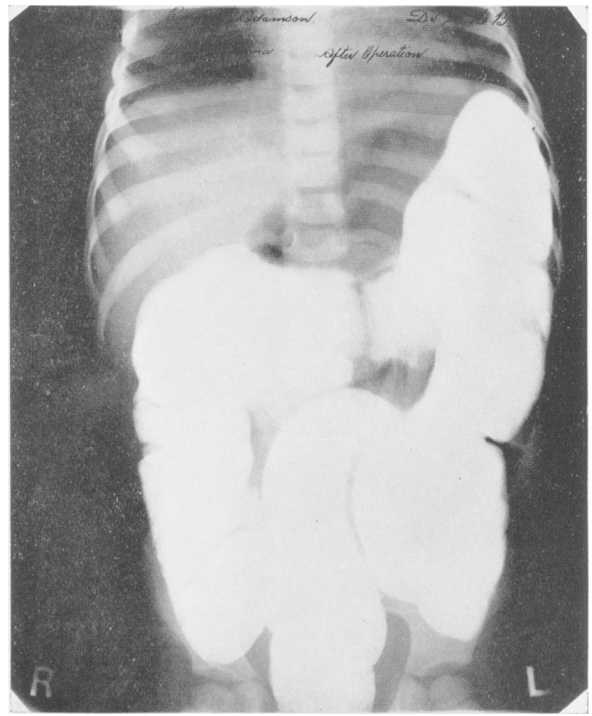

FIG. 2—Rodney Adamson.

After medical and surgical treatment. The abdomen is free from gas accumulation, and the opaque enema outlines the whole colon.

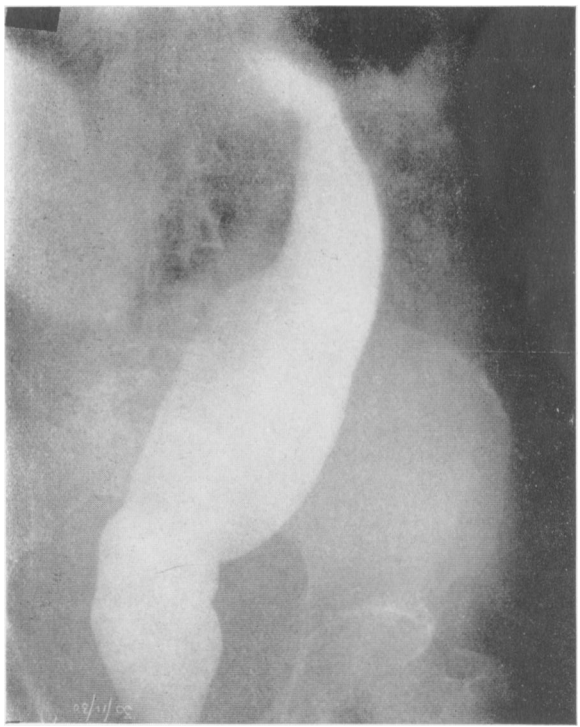

Fig. 3—W. McC., man aged 65.

Intestinal obstruction due to a rotating pelvic dolichocolon. Note the opaque enema outlining the elongated pelvic colon. The distal portion only of the pelvic colon is visualized.

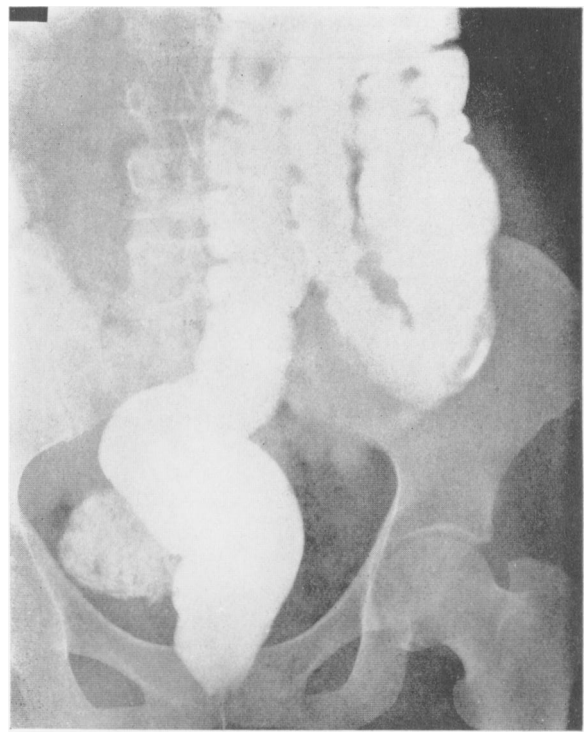

Fig. 4—Miss A. Pelvic dolichocolon.

The opaque enema outlined the elongated pelvic colon, the iliac and descending colon.

FIG. 5—Miss A. Pelvic dolichocolon.

The opaque enema outlined the pelvic colon, the distal half of which is distended. The lower three inches of the iliac colon is also visualized.

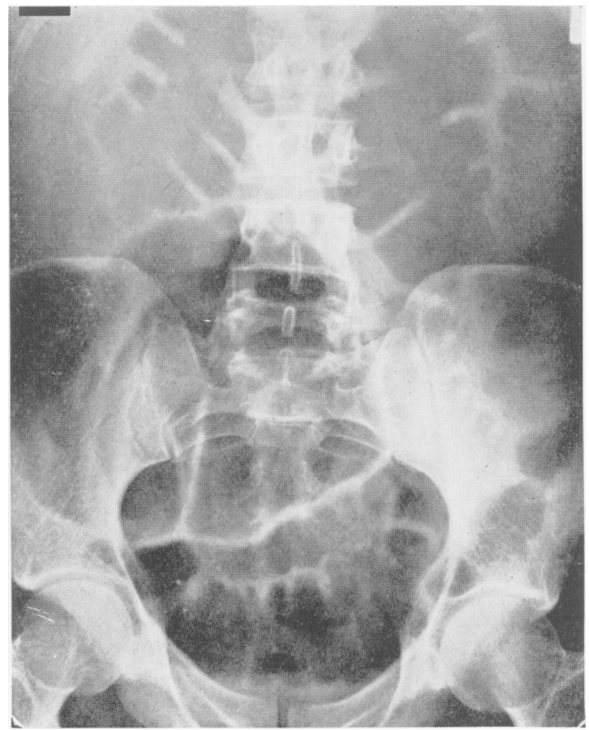

FIG. 6—McCartney (R.V.H.).

Obstruction of the upper part of the iliac colon by carcinoma. Clear radiogram showing distension of the various parts of the colon with gas.

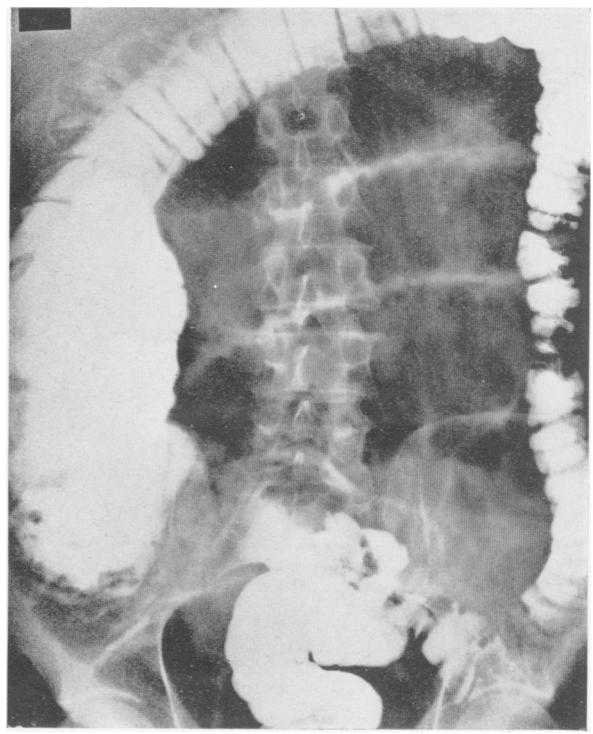

FIG. 9—Wallace (R.V.H.).

Clear radiogram showing distension of bowel with gas. The exact location of the gas was uncertain, but the abdomen was distended and there was faecal vomiting.

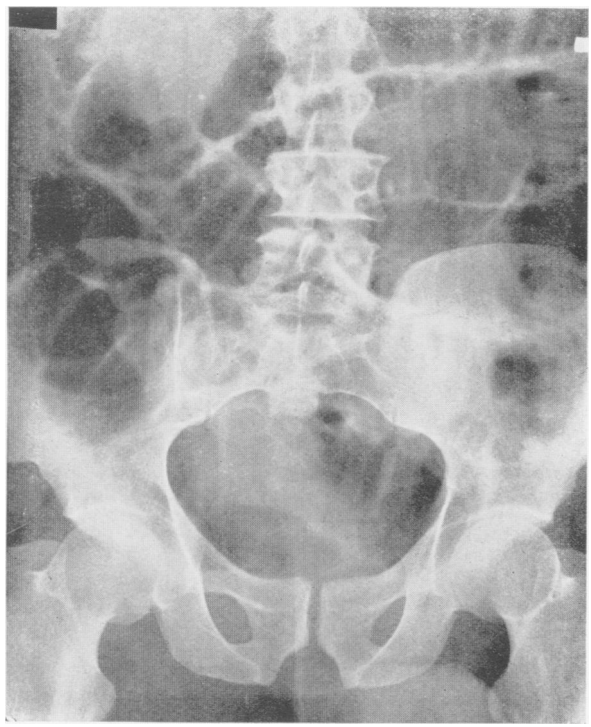

FIG. 10—Wallace (R.V.H.), same patient as Fig. 9.

Appearance after an opaque enema. The colon is normal, and it is now apparent that the gas-distended bowel is small intestine. *Post-mortem*.—Paralytic ileus; no obstruction found.

The Etiology of Erythema Nodosum

By R. W. M. STRAIN, M.D., B.SC.,
from the Royal Victoria Hospital, Belfast

INTRODUCTION.

ABOUT a year ago Professor Thomson suggested to me that it would be interesting to examine the medical histories of a series of cases of erythema nodosum, to see whether there was in any of them any evidence of a definitely tuberculous or rheumatic origin.

Dr. Turkington[18] has already put the tuberculous theory before the Society, and if the present series shows that some at least of these patients are tuberculous, I feel I may be forgiven if I introduce the subject again.

THE LITERATURE.

As long ago as 1798, Willan noticed that in a certain number of cases erythema nodosum was followed by phthisis.

Since then the papers dealing with the etiology of the condition have been extremely numerous, but are not in universal agreement.

"Erythema nodosum," said Trousseau[19] in 1869, "is a specific and separate disease which manifests itself locally by characters so precise as not to admit of being mistaken. It also presents a group of general symptoms necessary to be taken into account. . . . The articular pains which precede and accompany the eruption seem to me to be characteristic of erythema nodosum. The pain is sometimes as acute as in pure rheumatism, but I have never seen redness or swelling in the situation of the affected parts, nor have I ever found signs of a cardiac lesion. The existence of these articular pains seems to indicate that erythema nodosum is of the nature of rheumatism." He found that treatment made no difference to the duration of the pains.

With some modifications this theory was supported by Mackenzie[12] in 1886. From his investigations he concluded :—

1. That erythema nodosum is frequently associated with definitely rheumatic symptoms such as arthritis, sour sweats, sore throats, etc.
2. That heart disease may arise during an attack of erythema nodosum, both in cases in which arthritis is present and in cases in which there is no affection of the joints; and
3. That these conclusions justify the inference that erythema nodosum is frequently if not always an expression of rheumatism, even when no other definitely rheumatic symptoms are present.

As recently as 1932, Josephson[9] reports that in a series of seventy-one cases, tubercle has only been recorded in four, while thirty-five had signs suggesting their connection with articular rheumatism.

Feer[7] (1926), on the other hand, found no arthritis or endocarditis in his own series of forty-five cases. He found endocarditis in three out of 749 cases of erythema nodosum described in the literature.

Landau[10] (1927) found a previous rheumatic infection in one child in a series of 130.

Symes[17] (1928) found that the pains do not respond to salicylates, that they are not of the fleeting type of arthritis, and are not associated with profuse sweating. He considered that there is an undoubted association with tuberculosis, and that tuberculous lesions are particularly prone to occur during the first six months after an attack of erythema nodosum.

In 1908 Moro produced an attack of erythema nodosum on the feet of a child by the massage of tuberculin into the thoracic wall. In the same year Gougerot reactivated the lesions of an old case of the erythema by the subcutaneous administration of tuberculin.

Four years later (1912), Pollak showed that the von Pirquet reaction was strongly positive in a series of children suffering from erythema nodosum, although it had previously been negative. This observation was repeated by Bernard and Paraf[2] (1929). This suggests not only that tubercle is the cause, but that the erythema is the first manifestation of the infection.

Ernberg[6] (1933), among others, has noticed that X-ray examination of the chest reveals alterations in the hilar shadows in most of these cases. He noticed the similarity between the lesion of erythema nodosum and the skin response to tuberculin, and that such a rash sometimes followed the administration of tuberculin. He believes the condition to be an autogenous tuberculin reaction, and that the hilar glands are the source of infection. "Erythema nodosum," he says, "is a warning signal which enables us to estimate the extent of the tuberculous process and to act accordingly."

Cruise[4] (1934) found that in a series of thirty-three nurses with erythema nodosum, one-third either developed definite tuberculosis or were suspected of it, all but one of these at the time of the erythema or within six months.

In view of the many papers associating erythema nodosum with tubercle, it might be thought that attempts would be made to give a bacteriological proof. As early as 1913, Landouzy[11] removed a lesion from the skin of one of these patients. He demonstrated the tubercle bacillus in a stained section, and by the inoculation of a guinea-pig with the extract from another part of the tissue he produced typical lesions of tubercle in the spleen, liver, and lungs of that animal.

Saenz, Chevallier, Levy-Bruhl, and Costil[16] (1933) were easily able to produce death from tuberculosis in a guinea-pig by the injection of blood from a patient suffering with erythema nodosum, but found this much more difficult using material from the lesions instead of blood. This suggests that the tubercle bacillus is but sparsely found in the skin compared with the blood.

There are many isolated instances in the literature of the successful inoculation of the guinea-pig with material from cases of erythema nodosum, but in the hands of equally skilled workers using the same technique the result proved negative.

A method which has given more definite results is that evolved by Wallgren and reported on both by himself and by his colleague Philipson.[14] A dose of potassium iodide is given to these patients on the previous evening, and in the morning,

before any food is taken, the stomach is washed out with 200 c.c. normal saline. In this way all the sputum which has been swallowed is recovered. By this means they were able to demonstrate the tubercle bacillus in ninety-six out of a hundred consecutive cases of erythema nodosum. These ninety-six also showed increased hilar shadows. The other four cases had no tubercle bacilli in the stomach, and the chest X-rays showed no abnormality.

According to Arloing and Dufourt[1] (1930), erythema nodosum is a condition liable to occur during the fever to which Landouzy gave the name "typho-bacillose." This occurs during a first infection with tubercle, and resembles typhoid fever in the form of the temperature chart. The fever of typho-bacillose lasts two to four weeks, and is fairly high. It is not accompanied by any very definite symptoms. It is very often not recognized, and put down to influenza, a febrile gastric attack, or paratyphoid. It heals spontaneously and does not recur. According to Landouzy, this clinical picture is constant and specific. It is exceptional to see it in an adult; it takes place characteristically in childhood. Arloing and Dufourt say that erythema nodosum presents much the same picture. In both cases there is simple mediastinal adenitis with more or less lung infiltration, and both are likely to be followed in a short time by other tuberculous manifestations.

Renard[15] (1932) found that at the time of the eruption all these children had enlarged hilar shadows even in absence of physical signs in the chest. Such shadows tend to regress in from six months to two years. Sometimes resolution is complete, sometimes there remains some slight widening of the root shadows or a few calcarious nodules.

A recent paper by Morquio[13] (1934) is worth quoting. "Accepting the tuberculous nature of this condition," he says, "and in accordance with clinical experience, we consider that children suffering from erythema nodosum should be watched, for we must bear in mind the aggravation or the generalization of the infection." He also refers to Ernberg's views on the pathology of the condition. Ernberg considers the lesions a response to tuberculin rather than to the tubercle bacillus. His arguments in favour of this are :—

1. The rarity with which the tubercle bacillus has been found in the lesions.
2. At the time of the tuberculous infection there is a hypersensitivity to the toxins of Koch's bacillus, like anaphylaxis in serum sickness.
3. The concomitance of peri-focal phenomena in the lungs in the same way as with tuberculin.
4. The absence of erythema nodosum in children less than a year old. Below this age the body does not produce the antibodies necessary to produce an anaphylactic response.

The more recent views suggest that the skin lesions are an allergic response to bacterial toxins. The case for tuberculin needs no further demonstration. Opinions differ as to whether this is the specific allergen or only one of a number.

The idea of non-specific allergens is put forward in Collis's[3] well-known paper (1932). He believes that the two chief allergens are tuberculin and the toxins of the hæmolytic streptococcus. He describes two series of cases. In the first—

The Mantoux intradermal tuberculin test is positive.
There is no response to the intradermal injection of hæmolytic streptococcal emulsion.
The stomach wash-out causes tuberculosis in guinea-pigs.
There is a tuberculous family history.
The hilar shadows are enlarged.

In the second set—
The Mantoux reaction is negative.
There is a response to the intradermal injection of hæmolytic streptococcal emulsion.
There is no family history of tubercle.
Stomach wash-out is not lethal to guinea-pigs.
Often the attack is not the first.
There is a history of sore throats.
The hilar shadows are not enlarged.

He believes that the streptococcal form may come in repeated attacks with fresh naso-pharyngeal infections, but has never seen a second attack where the etiology is tuberculous. The lesion produced in the streptococcal cases by the injection of the emulsion is indistinguishable from the lesion of erythema nodosum.

Forman and Whitwell[8] (1934) consider that tuberculin is the cause in this country. They give as reasons why a sore throat may be disguising the tuberculous etiology the following suggestions :—

1. It may light up a tuberculous focus there or in the neighbouring glands.
2. The general tuberculous resistance may be lowered.
3. It may be part and parcel of the disease, like the sore throats of syphilis.

They believe that many tuberculous cases are not detected because the tuberculin used has been too weak.

According to d'Arcy Hart,[5] it is not possible to make a negative diagnosis of tubercle till the Mantoux reaction has been found negative with one in ten tuberculin.

The Follow-up.

The cases in this series were all admitted to the wards of the Royal Victoria Hospital for treatment. In certain ways they cannot be taken as representing the average cases of erythema nodosum, as, in the first place, no child under twelve years of age is admitted except in cases of extreme emergency. It is repeatedly pointed out in the literature that the condition is more common in children than in adults. Furthermore, they are all gathered from a city population, and therefore it is likely that they have had more opportunities of becoming tuberculinized than the average member of the community as a whole.

During the years 1929-33 inclusive, there were thirty-five cases of erythema nodosum admitted to the Hospital. Of these twenty-four were females. The average age was 21. The average stay in hospital was sixteen days.

In only one case was the patient not at some time or other during the disease treated with the salicylates.

The *family history* of the series includes the following manifestations :—

Pulmonary tubercle	1
Cervical adenitis	1
Mesenteric adenitis	1
Pleurisy	1
Carditis	2
Rheumatic pains	2
Growing pains	1
Erythema nodosum (including two sisters, both in the present series)	3

The family history does not seem to differ much from what might be found among any similar set of healthy people of the hospital class. One case of a tuberculous foster-mother is included, and will be mentioned later.

The *histories of the patients prior to their attacks* of erythema nodosum are shown below :—

Sore throats—		
Remote	8	
Recent	5	
Remote and recent	3	
Total	—	16
Tonsillectomy		8
Growing pains		9
Rheumatic fever		1
Chorea		—
Carditis		2
Scarlet fever		5
Previous attack of erythema nodosum		1
Vascular hypertension		1
Enlarged glands—		
Abdominal	2	
Mediastinal	1	
Cervical	2	
Axillary	1	
Total	—	6

The question of pharyngeal infection is an interesting one. Eight cases occurred a short time after a sore throat. No fewer than twenty-nine of the thirty-five either gave a history of sore throats or of tonsillectomy, or had physical signs in the throat at the time of the rash.

In the few cases that were examined bacteriologically at the time, the hæmolytic streptococcus was always found.

Five of the cases are still subject to sore throats, and two have had tonsillectomy performed.

There seems little doubt that in the series the pharynx is more than usually prone to infection.

The following table shows the average condition *during the attack:*—

Number of cases		35
Temperature raised		21
Physical signs of throat infection		18
Physical signs in the heart		10
Pains		13
Definite arthritis	3	
Indefinite arthritis	3	
Pains in legs, etc.	7	

The hilar shadows were enlarged in the only two cases in which the chest was X-rayed.

The Mantoux reaction was carried out twice, and was negative both times, but was not carried out according to the standards of d'Arcy Hart.

Agglutination of the enterococcus was attempted five times, three times with negative and twice with positive results.

Three throat-swabs were made, and all contained a hæmolytic streptococcus.

Arthritis is definite only in three cases. Some authorities say there is no definite arthritis; others say there is arthritis, but that it is not of the typical rheumatic type, while still others liken the pains to those found is serum sickness, and emphasize the similarity of the interval between a streptococcal throat infection followed by erythema nodosum and pains, and the appearance of such pains after the administration of serum.

After the attack—

Number of cases traced	35
Death from tuberculous meningitis (seventeen, six, and two months after the rash)	3
Death from secondary sarcoma on the lung	1
Pleurisy (one in three years with effusion; one in two and a half years, and now with lung infiltration)	2
Sore throats	5
Other attacks of erythema nodosum	2
Arthritis	1
Indefinite pains	6
Neuritis	2
Carditis	1
Onychia	1
Rheumatic fever	—
Chorea	—
Tonsillectomy	2

Two other cases were confined to bed two years after the attack with severe pain in the chest on respiration, but were not attended medically, and refused examination at the time of the follow-up. They may have had pleurisy.

The following table shows the results of *special* examinations carried out at the time of the follow-up.

X-ray chest :—	
Number of examinations made	24
Lung infiltrated	1
Hilar shadows enlarged or calcified	11
Mantoux reaction :—	
Number of examinations made	26
1/10,000 positive	22
1/1,000 positive	3
1/100 positive	1
Agglutination of the enterococcus :—	
Number of examinations made	26
Positive A and B	2
Positive A alone	2
Positive B alone	10
Doubtful either A or B	6
Negative	6

While a detailed account of the clinical history of each of these patients would make the picture more complete, perhaps a few examples will be enough to illustrate what pathological phenomena have both preceded and followed the rash.

1. N. W., a machine-boy aged 21 at the time of his erythema, had previously suffered from sore throats and rheumatism in his toes. During the erythematous period his temperature was normal. The right tonsil was enlarged and slightly inflamed. There was an apical presystolic thrill, a double mitral murmur, and the pulmonary second sound was accentuated. He had no joint pains. He left Hospital in twelve days—that is, 28th May, 1929.

He was again admitted to the surgical wards of the Hospital on 11th March, 1930, with severe pain in the right iliac fossa. He had been complaining for five months of cough and copious sputum with night sweats, but there were no physical signs in the chest. A hæmolytic streptococcus was found in his throat. He was discharged with the diagnosis of tubercular cystitis. He was again admitted two months later with severe abdominal pain. He was kept under observation for six weeks, and laparatomy was then performed. The peritoneum was found to be studded with tubercles.

He died in the Belfast Union from tuberculous meningitis on 13th October, 1930.

2. L. H., a doffer aged 19, gave no history of previous illness. Her father died of heart disease and one of her sisters has heart disease. Her throat was normal at the time of the rash. She complained of no joint pains. She had a temperature of 100 for a week. She died of tuberculous meningitis in the Belfast Union two months later.

3. F. B., a probationer nurse in the Royal Victoria Hospital in her second year of training, had a history of one sore throat and had had her tonsils removed.

When she was 20 she took erythema nodosum, but had no pyrexia or arthritis. She was in the wards twelve days.

She died in the Hospital six months later from tuberculous meningitis.

4. C. B., a girl of 15, had a good family history. She lived with a foster-mother who had pulmonary tuberculosis, but was considered free from infection. The girl herself had repeated sore throats and had had scarlet fever. She was admitted in May, 1930, with the rash and a slight temperature, but no arthritis. She had enlarged tonsils. She kept perfectly well for two and a half years, and then took a pain in her chest with a pleural rub on examination. She is still subject to sore throats. Her Mantoux is positive with 1/10,000 tuberculin. She strongly agglutinates the B enterococcus. Her chest X-ray shows an early area of infiltration of the right middle zone.

5. M. A., a woman of 36, with no history of previous illness, was admitted on 24th March, 1933, with the rash. Her fauces were injected, but there was no temperature or complaint of joint pain. She did not agglutinate the enterococcus. She was discharged in nineteen days, and in a month the rash had reappeared with severe pain. She had erythema nodosum again in September of the same year, and was attended by Dr. Leonard Abrahamson of Dublin, who gave her an autogenous vaccine of hæmolytic streptococci from her throat. She has not been troubled since with either the rash or the pains. She was not able to come up for examination.

Discussion.

It is clear that the main features in every case, whether in the previous history, at the time of the erythema, or subsequently, resolve themselves into two main groups—the rheumatic or streptococcal, and the tuberculous; and that there are practically no other considerations.

The series also gives the impression that the features of the average case both before and during the erythema are in the main those we associate with rheumatism, such as sore throats, pains, a mitral systolic murmur, and perhaps scarlet fever.

It is to be noted that in the follow-up most of the cases present a fairly clean bill of health, but it is not without significance that three of the patients have died of tuberculosis. There is no reason to assume that all these cases are tuberculous.

Summary.

1. There is much evidence in the literature that many cases of erythema nodosum are due to a tuberculous infection, not necessarily as a local proliferative lesion due to the tubercle bacillus, but as an exudative response to tuberculin.

2. In eighty-three per cent. of the cases under review there is a history of previous pharyngeal infection, or such infection is obvious at the time of the rash.

3. A history of carditis before or after the rash is rare.

4. During the erythema there is generally a rise in temperature, with indefinite pain in the limbs in about half, and a mitral systolic murmur in about a third of the cases.

5. In many of the cases agglutination of the enterococcus was negative.

6. In no case was the Mantoux reaction negative.

7. Almost half the cases examined showed increased hilar shadows.

8. One case characterized by repeated attacks has been cured by a hæmolytic streptococcus vaccine.

9. Three cases in which at the time of the erythema there was no reason to suspect a tuberculous etiology, but rather rheumatism, have died from tuberculous

meningitis, and therefore, although there seems no doubt that rheumatism does account for some of the cases, all convalescents from erythema nodosum should be regarded as tuberculous for at least a year after the attack.

The author's sincere thanks are due to (1) Professor Thomson, who suggested the subject; (2) Sir Thomas Houston, who carried out the agglutination tests; (3) Dr. Beath and Dr. Montgomery, for the radiographs.

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The Causes, Care, and Prevention of Blindness

By J. R. Wheeler, M.B., F.R.C.S.Edin.,
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Assistant Surgeon, Royal Victoria Hospital, Belfast (Ophthalmic Department)

Of all the ailments of the human body, perhaps blindness is the one which commands the greatest sympathy in the public mind.

The term 'blindness' has a very relative meaning, but perhaps the best practical definition is that laid down by the Government in the Blind Persons Act, i.e., so blind as to be unable to perform any work for which the eyesight is essential. One can readily see that this definition gives considerable latitude to the individual examiner.

In turning to the earliest records, and in searching the Scriptures, we find frequent mention of blindness.

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In turning to the earliest records, and in searching the Scriptures, we find frequent mention of blindness.

According to one author, the degrees of blindness were classified in those days as :—

(1) Immobile eye, which probably meant absolute blindness.

(2) Heavy eye, which probably meant weakening sight, as in trachomatous pannus, and photophobia, etc.

(3) Dim eye, which was probably used in senile cataract cases.

According to as recent a Government report as 1933, "Palestine now takes first place in the world as regards the gravity of blindness." In Palestine 1,968 persons in every hundred thousand are totally blind.

It is quite probable, too, that these figures are a considerable under-estimation of the facts, as a certain number of the blind slip away from registration at a general census.

The Bible and other early writings give us information about this country which dates back as far as 1400 B.C., and it is interesting to study some of the conditions prevalent in those early times.

That the numbers of blind people were large is evidenced by the fact that the legislators of that time had to make laws for the protection of the life and the safety of the blind. Thus we find it mentioned in Deuteronomy how Moses proclaimed unto the tribes of Israel : ". . . and the Levites shall speak, and shall say unto the men of Israel with a loud voice : Cursed be he that maketh the blind to wander out of the way. And all the people shall say Amen."

Another law is mentioned in Exodus : "And if a man smite the eye of his servant or his maid, so that it perish, he shall let him go free for his eye's sake." When one realizes that by this law the slave-owner lost thirty months' free labour, as the price of a slave was thirty shekels of silver, and the daily wage of a worker one-thirtieth of a shekel, it is seen that with a law of this severity the need for it must have been great.

The cause of this high percentage of blindness was due—firstly to disease, and secondly to trauma.

1. Disease.

Probably one of the chief causes of blindness due to disease in these early days was trachoma. According to Boldt, trachoma in Egypt is as old as the Nile, the simoon, and the desert. It is inconceivable, therefore, that the Israelites should not have brought this undesirable form of plunder back with them after their period of bondage in Egypt. When one thinks of the unsatisfactory sanitary conditions under which people lived at the time, and the insufficient medical knowledge, one can readily see how rapidly this disease would spread.

In an interesting article by Shimkin in the "Journal of Ophthalmology," he proves pretty conclusively that Leah, Jacob's wife, suffered from a severe form of trachoma of both eyes, with ulcerated cornea associated with photophobia and blepharospasm. We read in Genesis that Jacob had a rich Uncle Laban, who had two daughters — Leah and Rachel. Leah was tender-eyed, but Rachael was

beautiful and well favoured. Leah's eye-disease made her so unattractive that Laban apparently had no hope of seeing her married except by deceit.

In those days husbands cherished their wives who bore them sons, and we can readily understand Leah's disfigurement when we read that she was not loved even after having borne Jacob three sons. This gives one some idea of the ravishes of the untreated disease in those days.

Besides trachoma, other forms of acute conjunctivitis seem to have been present frequently. These caused complications which at times even progressed to atrophy of the eye.

According to MacCallan and Wilson, both in Palestine and Egypt gonococcal conjunctivitis was due to epidemic and not to sexual origin, although a whole series of bacteriological investigations have established the identity of the gonococci of the conjunctiva with the gonococci of the urethra.

An incident of the epidemic eye-disease is mentioned in Second Kings: "And when they (the Syrians) came down to him, Elisha prayed unto the Lord and said, Smite these people, I pray thee, with blindness; and He smote them with blindness according to the word of Elisha." This was probably a temporary blindness due to conjunctivitis, possibly due to the Koch-Weeks bacillus.

That treatment was attempted for many of these eye conditions was well known. The treatment was chiefly of a surgical nature. The surgeon who performed a successful eye-operation got a high fee, but this was evidently a very rare occurrence, and a penalty for an unsuccessful operation which caused blindness was the cutting off of the surgeon's hand.

II. Trauma.

As far as one can judge by the records, trauma was a serious cause of blindness in these early days, as the savage custom of putting out the eyes of prisoners of war was often carried out.

We read in the book of Judges of the blinding of Samson: "The Philistines took him and put out his eyes." The conqueror often provided a condition with the captive that he would grant him his life if his right eye were put out, as in Samuel 1: ". . . and Nahash the Ammonite answered them: on this condition will I make a covenant with you, that I may thrust out your right eyes." We also read of how Nebuchadnezzar blinded Zedekiah, king of Judah.

Not only in war-time, but also in times of peace, mutilation and particularly injury of the eyes was a common occurrence, especially as a means of punishing slaves; and the well-known law was made to prevent this barbaric custom: "And if any mischief follow them, thou shalt give an eye for an eye, a tooth for a tooth, a foot for a foot."

One wonders how many of these single eyes blinded in this crude manner caused sympathetic ophthalmia in the other eye, and thus total blindness.

In the German army reports of the 1870 war, blindness of both eyes was caused by a sympathetic inflammation in fifty per cent. of all eye injuries. One can there-

fore make one's own deduction as to what this figure must have been in the early times.

One might here state that, thanks to the work of the English surgeon McKenzie, there were hardly any cases of sympathetic ophthalmia during the late war.

Looking at the problem to-day, we find that advances have come in two main lines: first, medically; and, second, in social and legislative measures.

1. I think we might say the three greatest advances in the prevention of blindness have been due to the improved treatment of the three greatest eye-diseases, i.e., trachoma, gonorrhœal ophthalmia, and sympathetic ophthalmia.

Trachoma.—It is an extraordinary thing that the etiology of this disease is still baffling to medical science. Fortunately, however, we know how it is spread and also how to treat it, keep it in check, and, most important, prevent the complications which cause the blindness. I still feel, however, that this disease is too common, but I suppose one of the prices we have to pay for easy and rapid transport is that diseases of this sort can be more rapidly disseminated.

Gonorrhœal Ophthalmia.—This condition is now, comparatively speaking, rare, and if it occurs it is simply the result of carelessness. Found early and treated energetically, it should be able to be cured completely without giving rise to any complications. Much credit should be given to Credé for the valuable prophylactic treatment which he inaugurated to prevent ophthalmia neonatorin.

Sympathetic Ophthalmia.—As I mentioned previously, this condition should be non-existent now, provided proper medical attention is received for injured eyes. It is a sad but true fact that this condition may sometimes result from a surgical wound as opposed to a wound due to injury.

Apart from prevention of disease, improved methods of treatment and improved surgical technique have reduced the incidence of blindness.

On the surgical side, one of the latest advances is the treatment of detachment of the retina by means of diathermy; while improved technique in the operation for cataract and glaucoma have considerably improved our results in these conditions.

Nowadays the ophthalmic surgeon and the physician work hand in hand, and consequently the advances in medicine are being applied with great advantage to many eye-lesions.

One might mention the diagnosis and treatment of syphilis, the treatment of deficiency diseases, and the debilitated child with phlyctenular troubles.

The knowledge that focal sepsis plays such a prominent part in iridocyclitis, and, finally, the discovery of insulin for diabetes, are some of the more important advances in which we as ophthalmic surgeons have taken every advantage.

2. Turning to social and legislative measures, as far as I can ascertain, up to 1890 no state action was taken with regard to blind people. Previous to this date, a very limited number of homes were provided by voluntary effort, and some attempt was made to teach the blind to read by means of raised type.

As the result of the report of the Royal Commission on the Blind, the Deaf, and the Dumb of the United Kingdom, 1889, an Act was passed in 1890 which

provided for education of deaf-mute children. It was not until 1920, however, that a really important development took place, by the passing of the Blind Persons Act.

Under this Act the duty was placed for the first time on public authorities to make arrangements for the welfare of blind persons, either independently or through the medium of existing voluntary authorities.

The Act also made the following provisions :—

I. The payment of an old age pension under the Old Age Pensioners Act to persons of 50 instead of 70 years of age who were so blind as to be unable to perform any work for which eyesight is essential.

II. The registration of charities for the blind.

III. The making or securing by educational authorities of suitable provision for the technical education of the blind persons capable of being benefited by such education.

The third annual report of the Department of Health for Scotland shows that 71.4 per cent. of the total blind population were classified as unemployable.

In the North of Ireland there are only four charitable organizations which deal with the blind, namely :—

I. The Ulster Society for the Promotion of Education of the Deaf, Dumb, and the Blind. This Society was formed in 1831.

II. The Belfast Association for the Employment of the Industrious Blind.

III. Belfast Society for Home Mission Work Among the Blind.

IV. The Home for the Female Roman Catholic Blind, Whiteabbey.

For the year 1934 the Ministry of Home Affairs paid grants amounting to £3,442 to these Societies.

According to the last report of the first of these Societies, there were eighty-six persons on the roll, and the average age on admission was seven years and ten months. The report of the Inspector of the Ministry of Education points out that this school is performing a most useful work in helping its pupils, who begin life under a considerable handicap, to cope with their natural or acquired disabilities. The staff strive to develop in the pupils as wide a range of interest as possible.

The chief industries of the Association for the Employment of the Industrious Blind are basket- and brush-making, while mattress-making, mat-making, rug-making, and knitting also form a part of the work. The last report points out that in various departments over a hundred and twenty workers found employment, if only on short time. The majority of this work is done in the workshops, while a limited amount of home-work is given out. The report continues : "Lawnbrook" has been registered as the trade mark for our manufacturies of mattresses, brushes, and baskets, and our friends should insist on getting "Lawnbrook" when purchasing these articles.

A blind Braille type teacher visits periodically throughout the year upwards of fifty blind people in their own homes, and gives lessons in the art.

Now, turning to the part of the Act which deals with the blind pension—it is from the results of these investigations that I now present to you some interesting statistics.

NORTHERN IRELAND (1926 CENSUS): BLIND CASES.

TOTAL: 1,613.

	Males	*Females*
In Institutions ...	76	61
Not in Institutions ...	723	753
	799	814

AGES:	*Males*	*Females*
0— 4 years ...	7	4
5— 9 ,, ...	9	8
10—19 ,, ...	33	34
20—49 ,, ...	182	120
50—69 ,, ...	349	350
70 and over ...	219	288

INVESTIGATION OF 233 BLIND CASES, NORTHERN IRELAND, 1926.

Males, 105; Females, 128 (Unclassified, 42; Unknown, 11).

A. *Congenital*—

Cataract	2
Aniridia	1
Albino	1
Nystagmus	1
Total	5

B. *Inherited Tendency*—

Myopia and Complications	32
Glaucoma	17
Retinitis Pigmentosa	3
Total	52

C. *Inflammatory*—

Iritis and Iridocyclitis	24
Corneal Opacities	15
Interstitial Keratitis	4
Trachoma	5
Retinitis and Choroiditis	8
Optic Atrophy	13
Total	69

D. *Degenerative*—

Cataract	51
Conical Cornea	2
Total	53

E. *Injury* ... Total 1

GRAND TOTAL OF CLASSIFIED CASES: 180.

BLIND PENSIONS IN PAYMENT.

Country	Persons aged 50–70	On 31.3.27 No.	On 31.3.27 Ratio per 1,000	On 31.3.29 No.	On 31.3.29 Ratio per 1,000	On 31.3.31 No.	On 31.3.31 Ratio per 1,000	On 31.3.33 No.	On 31.3.33 Ratio per 1,000	On 31.3.35 No.	On 31.3.35 Ratio per 1,000
England and Wales	1931 Census: 7,377,735 ...	14,563	2.4	17,516	2.9	20,262	2.7	21,670	2.9	22,387	3.0
Scotland	1931 Census: 845,133 ...	2,854	3.9	3,500	4.8	3,234	3.8	3,053	3.6	—	—
Northern Ireland ...	1926 Census: 202,554 ...	1,572	7.7	2,094	10.3	2,113	10.4	1,758	8.6	1,758	7.4

In reviewing the investigated cases, one notices under 'inherited tendency' the large number of myopic cases. I feel that at least some of these might be prevented if every myopic child had the value of early medical advice. As regards glaucoma, it is a tragedy to see how often people with this disease have been wasting valuable time trying glasses, etc., before the diagnosis is established and suitable treatment given.

Under the 'inflamatory' group—I am of the opinion that every inflamatory eye-lesion should have a most careful medical overhaul, to try not only to cure the existing lesion, but, perhaps more important, to try and stop recurrences.

Finally, under the 'degenerative' group—the cataract figure should be able to be reduced. To-day we know that the operation can be performed much earlier than previously was thought advisable. We now operate when the vision falls to an embarrassing degree, and have not to wait until the cataract has got to the state of maturity.

On comparing the figures in Great Britain with those in Northern Ireland, the first thing that strikes one is the very much higher percentage of people in receipt of the blind pension here in Ulster. As to the reasons for this, I suggest three possible explanations :—

1. *Medical Examination.*—Prior to about 1928-9 medical certification of blind persons was very lax, and undoubtedly a certain proportion of the persons receiving the grant were not entitled to it. From that date onwards the examination has been carried out by recognized ophthalmic specialists, and so the examinations are now more accurate and fewer imposters are "getting away with it."

2. As this pension is given to insured persons or to persons of very limited means, in a country such as ours, where there is a high degree of poverty, the number of eligible people is bound to be higher than in a more prosperous country.

3. *There is the question of education.*—Time and again one has examined applicants for the pension who were suffering from cataracts, and who much preferred to have their pension than to undergo an operation which would, in all probability, give them back their eyesight.

A case comes to my mind of a man in the heart of the Mourne Mountains who had a dreadful rodent ulcer which had completely eaten away one orbit. He flatly refused to allow me to examine the remaining eye, stating that it was through a doctor looking at the other eye with a light that his trouble had been caused.

On asking certain patients what steps they had taken to remedy their failing vision, one frequently found that the only attempt they had made to help themselves was to try the effect of somebody else's glasses—often a pair sent to them by some relation in America.

These examples surely show that the type of person one has to deal with is of a very much lower standard of education here than their social equals in Great Britain.

Have we any reason to hope that the next generation will be better off than their

predecessors in this respect? I feel we can confidently answer yes—and for two main reasons :—

1. Under the present educational system the medical inspection of the child forms part of the routine; thus, comparatively early, defects can be detected and treated, and the child learns the value of medical aids.

2. After school-leaving age there are various means whereby these people may obtain help and treatment. Hospitals are becoming more numerous throughout the country. Some insurance companies are giving ophthalmic benefits, and, finally, comparatively recently the B.M.A. have instituted a scheme called the National Ophthalmic Treatment Board, which puts the advice of an ophthalmic specialist within the range of those of even very limited means.

Turning back to the school child, I am informed by a school doctor of one of the well-known public schools, that no less than 78 out of 263 boys leaving school were wearing glasses; that is, 29.7 per cent. have not got normal vision. An interesting point, too, is the fact that very few of these boys had complained of defective vision, but on cross-examination it was found that most of them admitted that they had had pains in their eyes or knew their sight was defective. This surely emphasizes the necessity of the routine examination of all school children.

As regards the errors of refraction, it is found that hypermetropia and hypermetropic astigmatism claim 73 per cent. while myopia and myopic astigmatism claim 27 per cent.

According to a report of the Board of Education on partially-sighted children, dated 1934, there are certain large areas which have special schools for partially-sighted children; a rough guide to partial sight being 6/24 or worse.

One American authority reckons that one child in every thousand falls into this category.

In these schools three main principles are observed :—

1. Considerable limitation of reading and writing.
2. Handwork to form a prominent part of the education.
3. Devitalized physical training, i.e., no violent exercise allowed, a light rhythm cultivated, and breath not to be held during exercise. In myopic cases exercises which include bending the body forwards and downwards are forbidden.

Liverpool reports that during the last ten years fifteen ex-pupils have been registered as blind persons at the age of 16 or over. Their ophthalmic conditions were :—

Retinitis pigmentosa	7
Optic atrophy	2
Myopia	4
Interstitial keratitis	1
Congenital cataract	1
Albinism	1

The myopic child is the chief difficulty. It is pointed out that at the average age of fifty years, five to six per cent. have macular disease, the average degree of

myopia being twelve diopters. About three per cent. of myopes develop detachment of the retina, the average degree of myopia here being 6.75 diopters. It is therefore the myopic child with serious fundus changes or with rapidly advancing myopia who is our chief concern.

The Committee recommends that myopic children of over ten diopters should have restricted physical training, while under ten diopters should be allowed a reasonable latitude.

As regards reading, the chief danger arises from excessive convergence of the eyes, combined with stooping.

Authorities differ greatly as regards the amount of reading allowed. The Committee sums up very well when it states: "The chief objects of education are to enable one to meet their fellows on equal footing in the ordinary round of business and social life, in which good address, confident carriage, and intelligent grasp of topics of permanent and passing interest avail more than a clever pair of hands."

Risk of eventual loss of sight varies greatly, and ophthalmic surgeons assume a grave responsibility who advocate too rigid a system of education, which may sacrifice the interests of many for the safety of a few.

The National Ophthalmic Treatment Board scheme is one whereby insured persons or persons of a similar income can be seen by an ophthalmic surgeon for a reduced fee of 10s. 6d. Mr. N. Bishop Harman, chairman of the Ophthalmic Committee of the B.M.A., gives an analysis of ten thousand cases examined under this scheme. He points out that no less than thirty-six per cent. of these cases need some attention other than the provision of glasses.

Certain Approved Insurance Societies who send their patients direct to opticians supplied him with figures which show that only three per cent. were referred on to ophthalmic surgeons for further examination. He states that the conclusion is irresistible, i.e., that the opticians did not recognize the defects present in the patients seen by them, or if they did recognize them, they did not report them for further examination.

There is nothing new in this conclusion, he states, as it has also been the finding of three separate Government inquiries:—

1. Departmental Committee on Cause and Prevention of Blindness, 1922.
2. Royal Commission of National Health Insurance, 1925.
3. Departmental Committee on the Optical Practitioners Bill, 1927.

This latter states: "We are satisfied that the number of cases in which the patient may miss the opportunity of remedial treatment if the case is not handled by an oculist is by no means negligible." His last words are: "This is the first time that the conclusion of the true economy of the medical examination of the eyes has been based on figures of such volume as to call attention."

Science advances, and we make all possible use of her knowledge, but human nature still remains the same, and the poor we have always with us. This being so, we hope our efforts will give better and still better results, but realize, at the same time, that the Utopian world is indeed still far away.

Tuberculosis and Genius

By S. I. TURKINGTON, M.D., D.P.H.,
Physician in Charge of Out-patients, Royal Victoria Hospital, Belfast

IN a letter to the "British Medical Journal" of September 10, 1921, Mr. S. T. Irwin dealt with the relation between chronic infections and mental activity. He stated:

"Many substances, toxic in large doses, act merely as stimulants when administered in normal amounts. If we assume that, in a case of moderate tuberculous infection, small amounts of tuberculin are being constantly absorbed into the circulation, the effect would be a mild but frequently recurring stimulation of the brain, and the brilliance of the after-dinner speaker produced, with this difference, however, that instead of spasmodic results the effect would be continuous."

It is interesting to reflect that all life on this planet can only exist within a very narrow range of temperature:—

"Within a few degrees of the long scale
Ranging from measured zero to unimagined heat;
A little oasis of life in Nature's desert."

A rise of five or six degrees only in temperature may mean delirium; while a daily swing of two or three degrees may mean continued cerebral stimulation and a sense of optimistic well-being—in short, the condition known as "spes phthisica."

Many writers of genius have suffered from pulmonary tuberculosis—"the destruction that wasteth at noonday."

In English literature one might mention Keats, Robert Louis Stevenson, the Brontës, Francis Thompson, James Elroy Flecker, and D. H. Lawrence. It will, perhaps, be of interest to show how tuberculosis may have influenced their work.

To begin with, there is the effect of tuberculin on the sensory cortex. "All our sensations," says Professor McBride, "are conveyed by the nerves, but the only things which travel along them are pulsations of electric energy, which merely vary in pulsation and not in volume. Our nerves actually tell us nothing about the outside world. Colour makes life beautiful, but colour does not exist outside our bodies, or at all. It is a quality of our sensations. The same is true of sound and smell."

If the retina is photo-electric, is it not possible that retina and visual centres may be so stimulated by the toxin of tuberculosis that they receive their "pulsations of electric energy" with a varying frequency? On the wireless a varying wave-length means a different station. A varying "pulsation" of a sensory nerve may mean that the recipient is more sensitive to those vibrations which convey to us the beauty of a flower. Keats, for example, was intensely sensitive to the beauty of the external world. Fortunately for us, he could record what he had seen, and therefore there are passages in his work which touch the highest point yet attained in English literature.

Mr. Charles Marriott, art critic of "The Times," has kindly sent me the following interesting note on the effect of tuberculosis on art, with special reference to the drawings of Mr. Henry Keen:—

"One does not need to be told that, like Beardsley, he was consumptive, because the mentality of the disease is evident in his work.

"The artistic work of consumptives tends to morbidity, in a combination of the macabre and the erotic. Beardsley was the classical example, and no doubt one is tempted to generalize from him. The combination of Love and Death seems to be characteristic.

"In one of Keen's drawings, a skeleton embraces a nude woman. Of course, you could quote against me Keats, but was there not a definitely erotic strain in his work? And R. L. Stevenson had a tendency to the macabre."

In literature the combination of the macabre and the erotic is well seen in the works of D. H. Lawrence. Life had doomed him to the inactivity of an invalid, so he sought compensation by describing the erotic careers of his imaginary heroes and heroines. And R. L. Stevenson, a victim of fibroid phthisis, and obliged to take long periods of enforced rest, sought an outlet by writing stirring adventure books. The greater part of "Treasure Island" was written at Davos. "The patient lives in a state of compensatory phantasy, in which he escapes altogether from the disagreeable facts in which he is involved."

A reviewer, speaking of the work of Mr. Llewelyn Powys, makes the following remark : "There must indeed be a kind of pathological approach in attempting to evaluate them."

This is very marked in the case of Llewelyn, who suffers from tuberculosis, though he has survived it from 1909 till 1936. Speaking of a visit to a doctor, who tested his lungs and "heard them crackle," he says :—

"I saw my skeleton crying out intelligent answers to another skeleton, who, stooping by my side, held his ear confidentially to my ribs." This is yet another example of the macabre outlook of the patient suffering from long-continued tuberculous toxæmia.

The sustained effect of the tubercular toxin on the higher centres tends to make the tuberculous patient a neuro-path; the psycho-pathology of tuberculosis.

"Sometimes," says Purves Stewart, "the psychasthenic has a feeling of double personality, in which he feels as if he had two co-existing 'egos.' The double personality of psychasthenia differs from that of hysteria, in which the duality is an alternating one, as a rule unknown to the patient." It is tempting to speculate that it may have been his consciousness of double personality which prompted Stevenson to write "Dr. Jekyll and Mr. Hyde," the classic account of the condition in English literature.

Again, the tuberculous patient wanders far afield in search of health. Keats died in Italy, Flecker and Lawrence in Switzerland, and Stevenson in far-away Vailima.

Longing for home, a bitter nostalgia, breaks out again and again in their work. One might quote many examples. Here is Stevenson's vision of home as he saw it from the tropical dust and glare :—

"Blows the wind to-day, and the sun and the rain are flying,
Blows the wind on the moors, to-day and now,

Where, about the graves of the martyrs the whaups are crying :
My heart remembers how."

Again, there is the ever-present realization of the shortness of life. It was this feeling that inspired Keats to write the sonnet commencing—

"When I have fears that I may cease to be
Before my pen has gleaned my teeming brain."

Recurring hæmoptysis was pointing the sad warning that his time was to be too short to allow his genius to come to full fruition. And it was a sense of the nearness of the unseen world which prompted Francis Thompson to write :—

"Not where the wheeling systems darken,
And our benumbed conceiving soars,
The drift of pinions, would we hearken,
Beats at our own clay-shuttered doors."

Flecker, too, though he lived on Alpine heights, dwelt in reality in the Valley of the Shadow when he wrote :—

"West of these, out to seas, colder than the Hebrides, I must go.
Where the fleet of stars is anchored, and the young star-captains glow."

Rhodes, as he lay dying at Capetown, "dreaming his dream of Empire to the north," was heard to say : "So little done, so much to do." That is one of the dominant notes which runs through all literature written by the tuberculous subject, "the exquisite wistfulness of the consumptive."

THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND

To the Editor of The Ulster Medical Journal.

Sir,

For many years it has been your kindly custom to make an eloquent appeal in your editorial columns in support of this old and honoured charity. This year you have been so good as to suggest that I should write a short statement.

Your readers may be interested to learn what response has been made so far to the special appeal which was, in January, issued by post to over eleven hundred medical practitioners in Northern Ireland. In this appeal it was pointed out that in 1934 the grants made to recipients in the Six Counties totalled £445, while subscriptions amounted to £180. 6s.—a deficit of £264. 14s. In 1935 the subscriptions had risen to £215. 12s., while the grants had fallen to £423. It was also shown that the grants allotted are pitiably small — from £10 to £15 in the case of childless widows, to about £30 to widows with young children.

I have written to each of the honorary secretaries for the other five northern counties asking whether our conjoint appeal has stimulated interest in or subscriptions to the Society. I append excerpts from each of their replies :—

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Dr. J. C. Robb writes from Downpatrick :

". . . I have had no fresh subscriptions as the result of the appeal, and I am glad that you are going to appeal in the Ulster Medical Journal . . ." (I hope Dr. Robb won't lose heart—"one shot more for the honour of Down!")

Dr. W. J. Dawson writes from Newtownhamilton :

". . . I really feel that doctors are so busy and troubled that they procrastinate in filling a cheque and posting a letter . . ." (But it would be such a help to the secretaries *and* the Fund if they would write those cheques! However, I am glad that Dr. Dawson finds some slight increase in his takings in County Armagh.)

Dr. R. H. C. Lyons reports from Dungannon :

". . . I think that the appeal has certainly done good. I have collected £8. 1s. to date, a gain of £2. 6s. so far . . ."

Dr. J. M. Killen writes from Derry :

". . . I think that the appeal has done good. I have not got in all my yearly subscriptions yet, but among those that I have received are a few new ones. I took the opportunity of making a personal appeal to the members of the Derry Medical Society last Friday evening, and I hope for a good response. Could you please let me have a list of all the County Derry doctors to whom you sent the 'Joint Appeal' in January, as I intend to write them again." (Wouldn't it be much nicer if they were to write to him *first*, enclosing a cheque?)

I am delighted again to be able to congratulate Dr. Kidd of Enniskillen. Fermanagh is the only county in Ireland in which every practitioner in the county subscribes. This is largely due to the enthusiasm and example of Dr. Kidd himself, but it makes me proud of my Fermanagh blood!

As to Belfast and Country Antrim, I find that on this date last year £82. 16s. (including a special donation of £10) had been received; this year £109, but this includes a special donation of £20, so that the ordinary subscriptions are increased by £17. I am glad to be able to report that the Ulster Medical Society has promised a subscription of ten guineas. In addition, eleven old subscribers have sent in new banker's orders (on which first payments will be made in 1937) for an aggregate increase of £7. 4s. 6d. I should like to take this opportunity of acknowledging an anonymous postal order for £1, post-marked Wallasey, Cheshire, and also the generosity of Messrs. William Strain & Sons, who printed and posted the appeal, and whose generous discount of £1 represented a donation to the Society.

I have trespassed on much of your valuable space, Sir, but in conclusion may I say that in 1935 some 237 persons subscribed £215 (this includes collections at certain dinners and meetings). If 1,100 doctors in Northern Ireland had each subscribed a guinea, what a difference it would have made to the widows and children of our own colleagues now in such terrible straits.

I am, sir, etc.

Robert Marshall, *Hon. Secretary*,
Royal Medical Benevolent Fund Society of Ireland
(Belfast and County Antrim Branch).

9 College Gardens, Belfast.

The Present State of Our Knowledge With Regard to Hodgkin's Disease

By EILEEN HICKEY, M.D., B.SC., M.R.C.P.I.,
from the Mater Infirmorum Hospital, Belfast

FOREWORD.

THIS article is written mainly for the busy general practitioner who, although anxious to keep abreast of the times, finds it almost impossible to do so. He is well aware that there is a vast amount of work being carried out in connection with certain diseases by individual workers and by teams of workers. The results of their researches are usually published, but the nomenclature and terminology in general used by these workers is so different from what it was even a few years ago, that the perusal of their publications is not a simple matter for a busy practitioner. Furthermore, the many references to recent findings, tests, etc., accompanied by their quota of investigators' names, are apt to be bewildering, even discouraging. In choosing Hodgkin's disease I have done so with the idea that it is a disease neither so common that the average doctor would feel that he knows all that there is to know of it, nor yet so rare that he might feel that it is not worth his serious attention. My aim is to review the disease in the light of modern knowledge in the simplest manner, to exclude the plethora of terms applied to it, and to briefly advert to some of the most important work; in brief, to epitomize for my colleagues some of the literature that they have not had time to read. Should this idea find favour with readers of this Journal, I hope that others may be stimulated to deal in a similar though more efficient manner with other morbid conditions of general interest.

IT is just over a hundred years since T. Hodgkin read his paper on "Some Morbid Appearances of the Absorbent Glands and Spleen," and brought to the notice of the medical world a disease characterized by enlargement of the lymph-glands and spleen. It was not, however, till many years after his paper that the condition was actually christened 'Hodgkin's disease.' It is now recognized that he was probably describing a group of diseases, but from this group emerges clear cut the one that bears his name to-day, both here and on the Continent. Half a century ago it was believed to be a rare condition. In 1883, in the Transactions of the Academy of Medicine in Ireland, a case was reported, and the concluding remarks of the writer were: "The foregoing case is, I think, worthy of finding a place in the Pathological Section of the Academy of Medicine, as well on account of its being a typical case of the disease with which Hodgkin's name is associated as on account of the great rarity of such cases in this country. So far as I have been able to make research, no similar case was ever exhibited at the meetings of the Pathological Society of Ireland."

Unlike many other diseases, it does not appear to have changed its character with the lapse of time. It belongs mainly to the second, third, and fourth decades of

life, and is more common amongst males than females. It is uncertain whether or not it occurs in domestic animals, although a very similar condition has been described in horses, dogs, sheep, pigs, and chickens. It runs a uniformly fatal course, death usually ensuing in two to seven years from the observed onset. The first group of glands noticed is commonly in the neck. This, however, does not imply that they are necessarily the first to be affected, a point which may in the future have an important bearing on treatment. The glands usually long remain discreet in this situation, and feel resilient to the touch, though matting together is relatively common in the mediastinal group. They are painless and not tender. The early appearance of glands in the neck, if the infective theory of the disease is accepted, points to the mouth and pharynx as likely portals of entry. Some, however, believe that the earliest groups are to be found in the abdomen, suggesting an entirely different portal of entry.

The general health as a rule remains good for months, or even a few years. Later on it deteriorates, the spleen often enlarges perceptibly, the patient may show a mild degree of anæmia, secondary in type, and possibly, though not always, a leucocytosis.

Pressure symptoms of various kinds may arise, especially if there is gross localization of the disease in the thorax. These many manifest themselves as dyspnœa, cyanosis, cough, nerve irritation or palsies, pain, œdema, difficulty in swallowing, cardiac embarrassment, etc. If the abdomen is much involved, there may be enlargement of the liver as well as spleen, and even jaundice and ascites. Occasionally appendicitis may be simulated, also sciatica. Itching of the skin may be a prominent feature, and pigmentation may be marked, the patient presenting a swarthy appearance. More rarely there are nodules in the skin. Sweating and pruritis are common, also loss of weight and an undulating type of fever. Fever is most obvious when the glands are enlarging. A good deal of attention has been focussed on the abdominal type of the disease associated with a curious periodicity in temperature rises. It is somewhat remarkable that the tonsils and intestinal lymph-nodes are so rarely affected in this disease.

Remissions with subsidence of the gland are frequent. These may occur spontaneously or as a welcome response to treatment by one of the many arsenical preparations or by X-rays. In spite of any treatment, however, anæmia and cachexia become much more marked, and the disease inevitably progresses to its fatal termination. Rarely it may run an acute course terminating in a few months, manifesting itself mainly by the general symptoms of fever, sweats, loss of weight, and anæmia, the lymph-glands being only slightly enlarged. In some very acute cases cutaneous ulcers have been known to develop. These acute cases may present great difficulties in diagnosis if the possibility of Hodgkin's disease is not borne in mind and the glands carefully sought for. Typhoid fever, B abortus infection, glandular fever, tuberculosis, leukæmia, will suggest themselves readily as alternative diagnoses. Still more rarely, perhaps, one encounters a case where the disease appears to have begun in the spleen, whereas *per contra* in thoracic cases the spleen may be found unaffected, even at death.

The disease is not regarded as malignant in the ordinarily accepted meaning of this term, but it has been shown that there have been undoubted cases in which a typically Hodgkin's gland has taken on sarcomatous changes. It is also accepted that malignant changes may arise in the capsule of a gland affected by this disease. The fact that infiltration of organs occurs fairly frequently in this condition is not regarded as evidence of malignancy, since a similar tendency is shown in the granulomatous lesions of syphilis, tuberculosis, and actinomycosis. Many cases have, however, been described with definite metastatic deposits in the bones, skin, heart, stomach, meninges, etc.

The etiology of the disease has been dealt with in a most exhaustive manner by the workers of the Rose Research Fund. They have found it possible to exclude as pathogenic agents the various organisms found from time to time in the glands in this disease and suspected of being the root cause. These include diphtheroids, sporotriches, yeasts, B tuberculosis (with special reference to the Avian variety), spirochætes, the granular bacillus of Frænkel and Much.

A worker* in connection with this Rose research has evolved a test which up to the present appears to be specific for Hodgkin's disease. For the test it is necessary to obtain one of the glands, and to convey it under aseptic (not antiseptic) conditions to a laboratory where this test is being performed. This glandular material, after certain specified preparation, is injected into a rabbit's brain. After some days the animal develops an unmistakable train of symptoms (palsy, ataxy, rigidity, etc.), when the test is positive. Other workers have confirmed the value of this test, and it will soon come into more general use, especially in cases where the ordinary microscopic examination of the gland in section still leaves some doubt as to the diagnosis. The exact nature of this pathogenic agent has not as yet been definitely settled. It resists desiccation (which even appears to increase the pathogenicity, and it resists heating to sixty-five degrees for half an hour. It seems probable that it will eventually prove to be one of the viruses analogous to that of vaccinia or hog cholera. An alternate hypothesis, that it may prove to be an enzyme or a toxin, has some supporters. Other workers using normal rib-marrow for this test have produced a somewhat similar, though not identical, train of symptoms. They are believed by the workers themselves to be due to an enzyme of proteolytic nature. Other workers have again discovered "elementary bodies" in the lymph-glands affected by Hodgkin's disease very closely resembling those discovered in vaccinia and proved to be the actual virus of that disease.

A good deal of interest centres round the view held by some observers that Hodgkin's disease and the leukæmias are closely related, and that all partake of the nature of neoplasms. The essential difference between these conditions (according to these observers) is merely a question of the fundamental type of cell involved, one cell multiplying to evolve the glandular and splenic condition known as Hodgkin's disease (believed to be a disease of the cells of the reticulum), another cell when similarly multiplying tending to produce lymphatic leukæmia, a third cell producing myeloid leukæmia, still another producing erythræmia. This over-

* Dr. M. H. Gordon.

production of cells has been aptly referred to as "an upset of the arrangements of imports and exports by over-production, ultimately tending to destroy the whole organism (commonwealth)."

It must be emphasized that even those who hold the view that Hodgkin's disease is neoplastic in origin, do not deny the possibility of infective agents being concerned in the production of neoplasms, by producing conditions which favour the occurrence of mutation in the cells. It is also evident that whereas the general course of the disease suggests an infective agent, on the other hand its relentless trend towards a fatal termination is strongly suggestive of malignancy, as is also the response to X-ray treatment.

The question of allergy in Hodgkin's disease has been very fully investigated by several workers. It has long been known that many diseases caused by infective agents produce a condition in the patient known as allergy, which may be demonstrated by some simple skin test. When the test is positive, it strongly suggests that the agent employed in making the test has some bearing on the etiology of the disease. All workers are agreed that they have not been able to demonstrate that Hodgkin's disease has any of the allergic characteristics of an infective process. Whatever weight attaches to these observations will be on the side of the neoplastic theory rather than the infective. Similarly, attempts to produce a complement fixation test (analogous to the Wassermann reaction) have also failed.

Pathology.—The glands, soft at first, become harder as fibrosis manifests itself. They vary a good deal in size and tend to remain discreet (with the exception particularly of the mediastinal group). Necrosis may occur, and is believed to be responsible for many of the toxæmic symptoms. Suppuration is rare. Various organs such as the liver, skin, and kidneys may show isolated deposits. The spleen, which is usually considerably enlarged, shows discreet nodules, the pulp being dark red and the nodule greyish-white.

On examining a microscopic section of a gland, the pathologist's task of diagnosis is an easy one if eosinophilia, multinucleated giant-cells, and fibrosis are prominent features. These three features, however, are not always present in the same gland, which may make the diagnosis much more difficult. Tuberculosis may co-exist in the gland, but this is apparently not so common as formerly believed. Another feature of Hodgkin's glands is the great increase in the cells of the reticulum, best seen in early cases.

The blood condition is worthy of some note, as very contradictory statements are made with regard to it. In the early stages of the disease, very often little or no change is found. Later on the degree of anæmia is usually slight, especially before much fever or cachexia has set in. In the late stages of the disease it may be severe, and in exceptional cases it may rival in severity the most grave case of pernicious anæmia. It is almost always secondary in type, but there are occasional rare cases where the resemblance to pernicious anæmia may be marked. As regards the white cells, all observers are not agreed. It appears probable that as the disease advances, a leucocytosis is the rule, but leucopenia is not rare, and it is doubtful if a lymphocytosis is common. Occasional cases have been reported where the blood has taken

on a leukæmoid character. Eosinophilia is said to be rare unless the glands are necrotic.

TREATMENT.—General tonic treatment is indicated in many cases. Arsenic is still one of the sheet-anchors. It is often credited with producing remissions. It may be administered as Fowler's Solution or as one of the many organic preparations.

X-rays.—Very rarely a case has been reported as cured. This is exceptional. When it occurs, one must presume that the group of glands treated were not alone the first affected, but that in addition there was no involvement of any other group. X-rays can undoubtedly produce remissions, and also very marked amelioration of symptoms (especially pain and various pressure symptoms), and appear to prolong life in many instances; but the fallacies of attempting to assess the value of any form of treatment in a disease characterized by spontaneous remissions are too obvious to mention. It has been suggested that in the future cases will be more extensively radiated, as it is always possible that the chest and abdomen may harbour glands in the incipient stage not yet giving rise to symptoms.

Specific Therapy.—A chick serum which had been recently discovered in Australia, and successes reported from its use, has been re-investigated in England, but the workers have been unable to confirm the results.

Undoubtedly one of the main reasons why Hodgkin's disease has been the battlefield of so much research in recent years, is owing to the fact that it appears to be so closely allied to malignant disease (especially sarcoma), whilst on the other hand it also bears strong resemblance to other conditions known as granulomata, of which the etiology is already an open secret; hence the great importance of the struggle to elucidate the etiology of a disease which may well prove to be a link between the two, and which may be a step farther up that slippery mountain-peak whose summit is the goal of all workers in the cancer campaign.

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DR. W. S. GIBSON MEMORIAL FUND

The fund inaugurated to make provision for the widow and two children of the late Dr. W. S. Gibson met with generous support, and a meeting of subscribers was held on 11th October, 1935, to consider the best way of employing the money. Dr. R. Marshall occupied the chair, and explained the object of the meeting. After some discussion, Dr. H. J. Ritchie proposed that "a board of six trustees be appointed from the subscribers to examine various schemes for the administration of the fund, and with full plenary powers to administer the fund in the best interests of the widow and children of the late Dr. Gibson." This resolution was adopted, and the following were elected trustees :—Professor C. G. Lowry, Dr. R. Marshall, Dr. W. A. Anderson, Dr. T. H. Crozier, Mr. Ian McClure, and Dr. H. Hilton Stewart.

The fund now stands at £1,004. 16s. 8d. The expenses were paid out of accrued interest, the money having been lodged at the Belfast Savings Bank.

At a meeting of the trustees it was decided to invest £300 for each of the children in an educational policy. This ensures that the elder will receive £44. 18s. annually from the age of twelve to twenty-one years, and the younger will receive £49. 11s. 10d. on attaining the same age and for the same period. The remainder of the money (£404. 16s. 8d.) will be paid to the widow in annual instalments of £50.

The success of this appeal was due to the generosity of the profession, and was completed by the kindness of Mr. William Anderson, LL.B., Solicitor, 7 William Street South, and Messrs. R. Martin, Son & Co., Ltd., Insurance Brokers, 10 Donegall Square South, who very kindly placed their services at the disposal of the trustees free of charge.

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A History of the Ulster Medical Society

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THE BELFAST MEDICAL SOCIETY.

The Ulster Medical Society was founded in 1862 by the amalgamation of two earlier bodies—the Belfast Medical Society and the Belfast Clinical and Pathological Society.

The first of these societies was founded in 1806, and records exist which state that "the most respectable physicians, surgeons, and apothecaries, not merely of the town (Belfast), but of the vicinity likewise, soon became enrolled under the designation of The Belfast Medical Society." The annual subscription was fixed at one guinea.

There were nineteen original members of this Society, which must have included most of the doctors in Belfast at that time, as the city boasted only twenty-two thousands of a population.

The intentions of the Society were to hold regular meetings at which matters relevant to the profession could be discussed; to form a medical library, and, as an additional attraction, to make a collection of "anatomical preparations."

The first president was Dr. S. S. Thompson, who was in turn succeeded by Dr. W. Halliday, Dr. W. Drennan, Dr. R. Magee, Mr. R. McCluen, surgeon; Dr. A. Marshall, and Dr. R. McGee.

But discord appears to have entered the ranks of the Society's members; their relations became strained, and at an early date the meetings became neglected. The Society was dissolved in 1814.

Unsuccessful attempts were made to reconstitute the Society four years later, and it was not until 1822 that Dr. R. Stephenson in association with Dr. Forcade, Mr. Moore, R.N., and Dr. McDonnell succeeded in doing it.

Little is known of Dr. Forcade and Mr. Moore; but Dr. Stephenson is known to have been a distinguished graduate of Edinburgh University, and to have been a visiting physician to the Belfast General Hospital. He was also one of the first members of the Belfast Branch of the Royal Medical Benevolent Society. In an obituary notice published in the "Belfast News-Letter," dated September 25, 1869, it is stated: "In his practice he (Dr. Stephenson) was thoughtful, clear-headed, and judicious. Some people might say he was curt, but those who knew him best were aware of the genial and kindly nature which he possessed." He died September 24, 1869.

Dr. James McDonnell is better known as the founder of the Belfast Medical School, and the first physician to give clinical instruction in the old General Hospital. He was born in the Glens of Antrim in 1762. He received his medical education in Edinburgh, where he obtained the degree of M.D. in 1784. His thesis on this occasion was entitled, "On the Drowned." This thesis is of special interest,

for it suggests the then rather advanced idea of blood-transfusions in cases where the usual methods of resuscitation had failed.

After graduation, young Dr. McDonnell came to Belfast to practise, and found life there a pretty crowded one on account of the political events then taking place. Yet he found time for much philanthropic work. The poverty of the people who were often unable to obtain medical advice in case of illness, touched his heart, and by his efforts a sum of fifty pounds was raised to open a dispensary to supply free medicine and free medical advice to the indigent poor.*

The success which followed the inauguration of the dispensary encouraged Dr. McDonnell to propose the erection of a public hospital, where patients suffering from fever could be admitted. Typhus and typhoid fevers were rampant in Belfast at that time, and it was impossible to control infection while the patients remained in their own homes. Dr. McDonnell's earnest pleading for funds for such a hospital resulted in the renting of a house in Berry Street, at a cost of twenty pounds per annum, to be used as a fever hospital. A nurse was appointed, and on April 27, 1797, it was opened, with six beds—the first fever hospital to be opened in Ireland.

The hospital was as great a success as the dispensary, but Dr. McDonnell and his assistants all developed typhus, and it had to be closed only a few months after opening.

On the doctor's recovery, his first thoughts were for the re-opening of the hospital. A sum of one hundred and thirteen pounds was collected by means of a charity sermon, and three houses in West Street were taken and converted into a new hospital. Dr. McDonnell was appointed physician-in-charge, and he devoted every spare moment of his time to organize it and to attend to its patients.

The value of this hospital was soon recognized, and it was decided to enlarge its scope; and in 1810 a plot of ground was leased in Frederick Street for the erection of a general hospital. The new hospital was opened in 1817, and its later history is concerned with the Belfast Medical School, rather than with the Ulster Medical Society. It is mentioned here because it owed its origin to Dr. James McDonnell.

Dr. McDonnell resigned from active duty in the general hospital in 1828, and on that occasion was presented with a service of plate worth seven hundred pounds, as a token of the appreciation of the community for his public services. The inscription read :

"To James McDonnell, Esq., M.D., who during a period of nearly forty years has devoted his time and eminent talents to the work of humanity, whose gratuitous advice has always been at the service of the poor, and to whose exertion this town has been principally indebted for that invaluable institution, the Fever Hospital and Dispensary, this service of plate has been presented by the nobility, Ladies, and Gentlemen of Belfast and its vicinity, as a tribute of their respect and esteem. A.D. 1828."

For many years after this date Dr. McDonnell continued to practise his profession, but he took little part in public affairs. He is described as being "a man of

* It must be remembered this was before the time of Poor Law dispensaries for poor people.

medium height, and his countenance was open, impressive, and cheerful. He was quick and able in speech, and had a good style of composition."

He died on April 5, 1845, in his eighty-second year.

These four gentlemen—Dr. Stephenson, Dr. Forcade, Mr. Moore, R.N., and Dr. McDonnell, formed the nucleus of the revived Belfast Medical Society, and before the first year of its existence had been completed, they were joined by Mr. Bryson, Mr. McCleary, Dr. Coffey, Dr. McKibben, Dr. Halliday, Dr. Young, and Mr. Mawhinney.

These early members of the new Society set about making a set of rules of such a nature as to make its future as secure as possible. Amongst these rules was one passed in 1825, which gave exemption from further annual subscriptions to all members who had made twenty years of *uninterrupted* subscriptions. This rule, it is believed, established a greater confidence in the Society's permanency than all the other rules combined.

The principal objects of the Society were the formation of a good medical library of standard works, and to hold meetings for the discussion of all matters concerning the medical profession.

The minute book of the Society shows the wide range of medico-political matters discussed. In 1832, the subject of a Medical School for Belfast was raised, and it was through the activities of the Society that the formation of the school was realized in 1835, in connection with the General Hospital and the Royal Academical Institution, Belfast. In 1841 the Medical Reform question was agitating the profession, and grave consideration was given to it at a number of meetings of the Society. The Society was instrumental in forming a Belfast Branch of the Medical Benevolent Fund Society of Ireland in 1843, a year after the foundation of this Fund. Sir James Graham's Medical Reform Bill of 1845 was also discussed, and resolutions passed in its support.

The activities of the Society apparently were at first confined to matters affecting the profession, rather than in the discussion of purely medical subjects; and it was not until 1845 that systematic discussions on purely medical and surgical subjects became part of the regular monthly meetings.* And a year later, a further extension of the Society's interests was made by the exhibition of pathological specimens at its meetings. These specimens, when approved, were preserved in a museum founded by the Society as an addition to its library, then located in a room granted for that purpose by the authorities of the Belfast General Hospital.

So successful was this latter feature of the Society, it is recorded, that four hundred specimens were in the collection in 1851.

THE BELFAST CLINICAL AND PATHOLOGICAL SOCIETY.

The Belfast Clinical and Pathological Society was not founded until 1853. Its first president was Dr. T. H. Purdon; its first treasurer, Dr. J. H. Halliday; and its first secretaries, Dr. A. G. Malcolm and Dr. G. F. Wales.

* A curious custom of the Society at this time was to elect as chairman the fifth member who entered the meeting.

This Society owed its formation to the activities of Dr. Malcolm. He thought that the Medical Society was too narrow in its interests, as it catered only for doctors and surgeons residing in or near Belfast. The new Society, which Dr. Malcolm succeeded in founding, had a wider outlook, and made provision both for town and country membership. At its foundation there were forty-nine members, and before its first year had been completed there were ninety-six on its roll of members.

The young Society seems to have been very much more active than the older one. The minute book shows that thirty-nine meetings were held between the 8th of October, 1853, and the 27th of May of the following year. The minute book states: "The business of the Society consisted in the exhibition and explanation of pathological specimens, generally of recent disease; the exhibition of interesting original cases; the reading of results of microscopical and chemical examinations submitted by members for analyses; brief statements of clinical facts and statistics; the reading of short papers on new modes of treatment, and the discussion of particular subjects for debate."

So successful was this young Society, that only one year after its foundation it is recorded: "With a view to encouraging the adhesion of country members, it was resolved (February 8, 1885) to publish weekly abstracts of its proceedings."

These abstracts were published, without doubt, as a later minute states that they "were highly approved of." Unfortunately, no copies appear to have been preserved.

The Clinical and Pathological Society held weekly meetings in the General Hospital on Saturdays at 3 p.m., and the meetings appear to have been well attended.

A conversazione was held in a public hall each year, to which non-medical guests were invited. One of these was held in the Belfast Corn Exchange in 1856, the year in which Dr. Malcolm occupied the presidential chair. A "Belfast News-Letter" report of this meeting states: "Great interest was evinced during the evening in some of the microscopic demonstrations by members of the Society, such as the polarization of light, the circulation of the blood in the foot of the frog, and in some experiments illustrating the physiological effects of strychnine by Dr. Hall's frog test. None of these could be viewed," the report continues, "with indifference even by those accustomed to similar spectacles, while to the uninitiated they were productive of surprise and amazement."

The first president of the Society, Dr. F. H. Purdon, was born in Chichester Street, Belfast, in 1806. He received his early education in the Royal School, Armagh, and at the age of thirteen years entered Trinity College, Dublin, where in due course he graduated M.A., M.B. He also became a Fellow of the Royal College of Surgeons in Ireland, 1827. He was one of the surgeons to the General Hospital, and was one of the first to be associated with the establishment of a dispensary for the poor of Belfast.

In 1832 he took an active part in the treatment of patients suffering from Asiatic cholera, which was then epidemic. He was among the early and successful operators

for laryngeal obstruction, and a tracheotomy tube was used by him as early as 1840.

Dr. Purdon was a liberal-minded and charitable man. He was one of the largest contributors to the Medical Benevolent Fund Society of Ireland, and was permanent president to the Belfast Branch up to the time of his death, which took place in his home on August 6, 1886.

Succeeding Dr. Purdon in the presidency of the Society were :—Professor J. C. Ferguson, Dr. D. Cuming, Dr. A. G. Malcolm, Dr. S. Browne, R.N.; Dr. Reid, Dr. Gordon, and Dr. James Moore.

The originator of the Society undoubtedly was Dr. Malcolm, one of the most distinguished members of the medical profession at that time in Belfast. Dr. Malcolm was born in Newry, County Down, in 1818. He received the rudiments of his medical education in the Royal Academical Institution, Belfast, and completed his studies in Dublin, Glasgow, and Edinburgh. He graduated M.D. of Edinburgh University in 1842. His thesis on that occasion was entitled "Fever," and for it he obtained one of the three gold medals awarded. Dr. Malcolm then began the practice of medicine in Belfast, where he "attended for two years on the poor gratuitously," according to the custom of the time. He was appointed physician to the General Hospital in 1845, where he rapidly gained a great reputation as a clinical teacher, and he was always surrounded by a class of eager students. He held advanced views on matters of public health, and succeeded in the appointment of the first sanitary committee in Belfast. He was one of the first to advocate the control of working conditions in factories and mills, and in 1855 read a paper before the British Association in Glasgow, entitled, "An Inquiry Into the Physical Influence of Mill Life." This paper was afterwards published in the London Statistical Journal. It is of particular interest, as it contains recommendations for the medical examination and supervision of mill workers, on the lines embodied in the factories and workshops acts in force to-day.

ULSTER MEDICAL SOCIETY.

As time passed, it became evident that the interests of the profession of medicine would be better served by a single Society instead of two competing Societies, and in 1861 discussions took place between representatives of the Belfast Medical Society and the Clinical and Pathological Society. These discussions are referred to in a minute of the Medical Society dated March 21, 1862. It states : "Dr. Dill moved and Dr. Browne seconded : 'That a committee be appointed to make the necessary inquiries for a Central Room for the use of the new Society.' " This committee reported on April 7, 1862, "That two rooms with water closet attached be taken in the house, No. 33 High Street, at the rental of £12. 10s. per annum, taxes included."

The report was approved, and a special meeting was held on April 26, 1862, to formally seal the decision of union between the two Societies. The minute of the Medical Society of that date states that the following resolution was passed unanimously : "That this meeting, having heard the report of the previous proceedings

of this Society, and having read the alterations about to be made in its rules, hereby approve of the proposed changes, and desire to unite this Society with the Pathological and Clinical under the title of the Ulster Medical Society."

A meeting of both Societies was held on April 30, 1862, and it was resolved: "That this meeting approves of the proceedings already undertaken for the amalgamation of the Medical and Pathological Societies, and hereby declares the union of the respective bodies, under the title of the Ulster Medical Society."

After this resolution had been approved, the first meeting of the Ulster Medical Society was held, and the rules of the new Society were passed. It was also agreed to rent the rooms in 33 High Street, and that the first annual meeting of this new Society was to be held on Saturday, May 3, 1862, at 3 p.m., at which the first office-bearers of the Ulster Medical Society were to be elected.

The objects of the new Society followed closely the ideals of Dr. Malcolm, in embracing the whole of the medical profession in the Province of Ulster, and it is to be regretted that Dr. Malcolm did not live to see its formation. He died in 1856 of "disease of the heart," the year in which he had occupied the presidential chair of the Clinical and Pathological Society. Dr. Malcolm probably did more for the advancement of medical science in Belfast than any other man of his time. He was a true reformer and missionary, and not only did he bring the Belfast Clinical and Pathological Society into existence, but he exerted himself untiringly on behalf of public health reforms; and it was mainly through his activities that the first public baths and washhouses were opened in Belfast.

So highly was Dr. Malcolm esteemed by the public of Belfast that it was suggested in the columns of the "News-Letter," September 23, 1856, that "a statue should be erected to his memory within the palings of the General Hospital, where he had laboured so faithfully and devotedly."

The statue was never erected, but instead a scholarship was founded by his widow for competition among the students of the General Hospital (and its successor, the Belfast Royal Victoria Hospital). This form of memorial is one that would have appealed to Dr. Malcolm more than any useless statue, for it encourages the closer study of clinical medicine, a subject that was dear to his heart. A modest tablet has been erected to his memory in the corridor of the Royal Victoria Hospital. It reads:

THE MALCOLM EXHIBITION
FOUNDED FOR THE BENEFIT
OF STUDENTS OF THE
BELFAST MEDICAL SCHOOL,
AND IN MEMORY OF
ANDREW GEORGE MALCOLM, M.D.,
ONE OF THE PHYSICIANS
OF THE ROYAL HOSPITAL, FREDERICK STREET,
WHO DIED DECEMBER 19, IN
THE YEAR 1856,
AGED 37 YEARS.

The first president of the Ulster Medical Society was PROFESSOR J. C. FERGUSON, M.D., a native of Tandragee, where he was born in 1802. He studied medicine in Trinity College, Dublin, from 1818 till 1823, in Edinburgh in 1824, in Paris in 1825, and graduated M.B. of the University of Dublin in 1827, when he was successful in obtaining first place with a gold medal. He was appointed the King's Professor of the Practice of Medicine in Dublin University, 1845, a post which he retained until his appointment to the Chair of Medicine in Queen's College, Belfast, in 1850. He was on the honorary staff of the General Hospital, Belfast, and an examiner in the old Queen's University of Ireland. Dr. Ferguson died on June 24, 1865.

JAMES PATTERSON, M.D., was the second president of the Society. He was elected in 1863. Dr. Patterson was the son of a Presbyterian minister in Magherally, County Down, and little else is known of him apart from the resolution passed by the Society on the occasion of his death. This resolution reads:

"That we record the respect in which we hold the memory of one of the most valuable members of the Society. We always found him an active, intelligent, and kindly counsellor and co-operator, whilst by the general community he was recognized as a useful citizen and a man of stainless character."

During this second session of the Society, the only important business was the appointment of a committee to give effect to some changes introduced into the, then, new British Pharmacopœia.

ROBERT STEWART, M.D., the third president, was elected in October, 1864. He was a native of Swords, County Dublin, where he was born in 1803, a son of the rector of the parish. He obtained his medical education at the Park Street School of Medicine, Richmond Hospital, and the Royal College of Surgeons in Ireland. He graduated M.D. in Glasgow in 1829, and then returned to Dublin, where he engaged in general practice. He came to Belfast in 1835 as superintendent of the District Asylum, an appointment which he held for nearly forty years.

Up to the time of Dr. Stewart's appointment, restraint was the recognized method of dealing with asylum patients. Dr. Stewart, however, was one of the first to follow the teachings of another Irishman, Dr. John Connolly practising in England, and instituted the non-restraint system of lunatics.* Stewart went even farther than Connolly, and practised the "moral treatment" of insanity, by the introduction of music and amusements among his patients. He was a man of great charity, and for thirty years was honorary secretary to the Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland. It was, indeed, while engaged in collecting funds for that Society that he contracted a chill which resulted in his death, after only a few days' illness, in March, 1875. His brother was the founder of the Stewart Institute, Dublin.

* Connolly's work, published in 1830, "An Inquiry Concerning the Indications of Insanity, with Suggestions for the Better Treatment of the Insane," was the beginning of a new outlook throughout the civilized world on mental disease and its treatment. Connolly was the first asylum superintendent to put away straight-jackets, handcuffs, and leg-locks.

During Dr. Stewart's year of office, it is known that an "anniversary dinner" of the Society was held on Tuesday, November 8, 1864. This is the first record of a formal communal dinner among the members of the Society. It is reported in the "Lancet" of November 12, 1864. The report ends: "During the evening several eloquent speeches were made, and the company separated highly gratified with the arrangements of the day."

The presidential chair in 1865-6 was occupied by JAMES MOORE, M.D., one of the most amazing personalities ever seen in the Belfast Medical School. He is described by Robert Esler in his "Sketch of the Ulster Medical Society" as "the surgeon-artist," for in addition to being a distinguished surgeon, he was an artist of great ability; and in addition to having obtained the degree of M.D. of Edinburgh University in 1842, he was an associate member of the Scottish Academy of Art, and an honorary member of the Royal Hibernian Academy.

After graduation, Dr. Moore commenced practice in Belfast, where for forty years he held a foremost place as a surgeon on the staff of the General Hospital, and consultant to several of the special hospitals of the town. He was also Medical Inspector of Emigration and of Quarantine to the Port of Belfast.

In his student days, Moore's artistic abilities were recognized by Professor Syme of Edinburgh, who selected him to illustrate his well-known work on surgery.

Dr. Moore was also an eminent archæologist, and was a member of the Werner Society of Antiquarians. He was admired by all kinds and conditions of people, but by none more than by the leaders of his own profession. Sir Charles Bell, in his will, left him his case of operating instruments. Professor Goodsir of Edinburgh paid him a similar compliment, as also did Dr. Thomas Reade, one of his colleagues in Belfast.

"Dr. Moore was a genius," writes Esler, "and, like most men of genius, had certain peculiarities, but we who were his pupils would remember those only which leaned to the side of virtue."

An anniversary dinner was held this year, according to the "Lancet," on December 7, "in Thompson's Rooms."

In these early days the Ulster Medical Society held many meetings in its rooms at No. 33 High Street. But they were either to discuss medico-political matters, or for the discussion of unusual or difficult cases. No formal papers on purely medical or surgical subjects are recorded. Its history at this period contains little of general interest, apart from the characters of its presidents.

JOHN S. DRENNAN, M.D., was elected president for session 1866-7. A son of the famous Irish Volunteer, Dr. William Drennan, he was born in 1809, and died at the age of eighty-four years. Little is known of him apart from the fact that he was first Professor of Materia Medica in the Leeds Medical School, and that he afterwards practised in Belfast. But his year of office is important in the history of the Ulster Medical Society, as the following entry from the minute book shows :—*

* The original minute book for this period is lost, and this entry is quoted from Esler's "Sketch of the Ulster Medical Society," Quarterly Journal Medical Science, 1886.

"Doctors MacCormac, Pirrie, and Murney, joint trustees with Mr. Girdwood for the erection of the new wing to the hospital—the donation of Mr. Charters—were present, and concurred in stating that both rooms in the basement wing had been specially prepared, and were *intended for the Society's use;* all the expenses of preparation having been defrayed out of the supplementary grant of £500 from Mr. Charters."

The Society in this year vacated the rooms in High Street, and settled in "a more congenial atmosphere of the General Hospital."

The first president to be elected, after the Society had settled in their new home during the session 1867-8, was PROFESSOR JAMES SEATON REID, M.D. Reid was born in 1811, and died at the ripe age of eighty-five years, on May 3, 1896. He held the position of visiting physician to the Belfast Union Fever Hospital for nearly fifty years, and he occupied the Chair of Materia Medica in Queen's College for thirty-three years. He was recognized as the greatest authority of his time on the diagnosis, prognosis, and treatment of fevers. He was brusque and somewhat rough in manner, but those who knew him well testify that this was but a mask to conceal a tender heart.

PROFESSOR JAMES CUMING, M.A., M.D., F.R.C.P.I., succeeded Reid in the presidential chair for session 1868-9. He was born in Markethill, County Armagh, 1833, and died on August 27, 1899. He was one of the earliest students of Queen's College, Belfast, which he entered in 1849, the year of its foundation. He graduated M.D. in 1855, and M.A. in 1858, and after post-graduate study in Paris and Vienna, began practice in Belfast, where he soon became one of the ablest physicians of the city. He was appointed to the Chair of Medicine in 1865 at Queen's College, a position which he occupied until 1899.

Professor Cuming left practically nothing behind him in the way of publications. But it is known that he published an important paper entitled, "Contributions to the Study of Some Thoracic Diseases," in 1869, and a paper, "The Sphymograph," in 1868. Yet in spite of this fact, he was during his lifetime the recognized head and leader in all professional matters, and "he reigned with undisputed sway over a loyal kingdom of devoted subjects, nearly all his old pupils and friends, whose respect and esteem for him deepened with his advancing years."*

Professor Cuming as a lecturer was a remarkable success, being a thorough master of literary style, and of calm, philosophic reasoning powers, which made his classroom utterances models of everything which a lecture should be.

The range and accuracy of his reading were phenomenal. There was no department of human knowledge, ancient or modern, which could be said to be entirely new to him, and he could have filled with distinction at least half a dozen Chairs of the College. His knowledge of English history and literature was accurate and profound, his highly-cultured mind grasping the spirit of the authors which he

* Sir William Whitla: "Proceedings of Ulster Medical Society," 1901.

loved to study, yet he shrank from parading his scholarship, and was seldom heard to quote even from his favourite authors, Horace and Homer. His familiarity with French, German, and modern Italian literature was no less profound.

But the keynote of Professor Cuming's character was his spotless integrity. He was as just a man as ever lived, and his judicial mind almost invariably led him to a correct and absolutely impartial judgment upon any matter left to his decision.

J. W. T. SMITH, M.D., was elected president for session 1869-70. During his term of office important matters were discussed by the Society; not the least of these was a discussion which took place in March, 1870, on the desirability or otherwise of continuing the Contagious Diseases Act of 1866. The result of this discussion was a resolution in favour of continuing the Act, "as it had tended to increase morality and diminish vice."

Dr. Smith was born in 1830, and died on August 11, 1890. Into the forty years of his working life he crowded an amount of work seldom or ever achieved by the longest lived member of our profession.

He wrote little, and hence has left practically nothing behind him to swell the literature of medicine. Few men, however, have more nobly and successfully laid their impress upon their generation than Dr. Smith. He was a brilliant clinical teacher, and the influence of his teaching upon the students and young practitioners of the Belfast Medical School could hardly be exaggerated. In diagnosis he was absolutely unrivalled. At the bedside in the hospital it was not enough to say that he shone in diagnosis: he was often sparkling and really lustrous. His perceptive faculties were developed to a rare state of perfection, and they were ever on the alert, though to the student and to the casual observer he hardly seemed to exercise them at times, but appeared to arrive at his conclusion of what was wrong by a method of intuition or instinct, scarcely himself knowing or understanding how or why. Those who knew and understood him best, however, were satisfied that he did not arrive at his diagnosis by an effort of instinct: he arrived at his decision by a rapid inductive process (often apparently automatic), drawing his inference from a number of observed facts or features which ordinary men generally overlook. The bent and configuration of his mind was such that he never guessed, and consequently he was very seldom wrong. He possessed a valuable gift which prevented guessing, and which consequently saved him from the degradation of attempting a so-called "lightning diagnosis"—he had the rare endowment of conscientiously taking infinite pains in every examination which he undertook. Even after he satisfied himself about the correctness of his diagnosis, he rapidly but accurately determined the condition of every organ in the body, where this was possible, before prescribing for his patient and before committing himself, which made the teaching of Dr. James Smith a power for good in the training of the medical students.

The "Lancet" of June 4, 1870, contains the following notice regarding the Society:—

"The Ulster Medical Society have petitioned the House of Lords against proceeding with the Medical Bill without further inquiry. They object to the power given to

the Privy Council in the Bill, even as amended by Lord de Gray; and to the diplomas bearing other than the Imperial name. They petition for a reconstruction of the Medical Council, and for the discontinuance of the Apothecaries Hall of Ireland as a medical authority."

Dr. Smith was followed in the presidential chair in 1870-1 by WILLIAM MACCORMAC, M.D., F.R.C.S.Eng. Dr. MacCormac, afterwards Sir William MacCormac, is an excellent example of the Hippocratic view that "war is the only proper school for the surgeon," for he served in no less than three wars — the Franco-German War of 1870, the Turko-Serbian War of 1876, and the South African War of 1899. MacCormac was born in Belfast on January 17, 1836, the son of Dr. Henry MacCormac, the pioneer of the open-air treatment of tuberculosis. He was educated at the Royal Belfast Academical Institution, and at Queen's College, Belfast, where he graduated M.A., and later M.D. with gold medal. As a student he appears to have taken a leading part in undergraduate activities, and he was elected president of the Literary and Scientific Society for the session 1857-8. For a few years MacCormac practised as a surgeon in the old General Hospital, Belfast, and in the middle of his year of office the call for adventure carried him away to serve with the French Army during the war of 1870. He spent a short time serving at Metz, and meeting the American surgeon, James M. Sims, he joined and helped to organize the Anglo-American Ambulance, with Sims at its head. Sims soon retired from this position, and MacCormac was left in command of the complete unit, which included sixteen qualified surgeons. The experience obtained during this time was later of invaluable service to him when he settled in London, where he was soon recognized as a surgeon of great ability, and he was elected to the staff of St. Thomas's Hospital as assistant surgeon. Three years later he was raised to the rank of full surgeon and lecturer in surgery. But again the call for adventure seized him, and in 1876 he accepted an appointment with the National Aid Society as surgeon-in-chief to the Ambulance Corps which was being sent for service to the Turko-Serbian War.

On MacCormac's return to London from this war, he addressed a meeting of the British Medical Society on "Antiseptic Surgery," a subject of violent dispute at that time. His address, together with the views expressed by surgeons who took part in the discussion which followed, were published by MacCormac in 1880. This book represents a landmark in the introduction of the Listerian principles from which modern aseptic surgery emerged. It was translated into French and Italian, and published.

An International Medical Congress was to be held in London in 1881, and MacCormac was entrusted with the task of its organization. This he did successfully, and at the conclusion of the Congress he edited and published its proceedings, in three languages. A knighthood was conferred upon him for this work.

MacCormac published many papers and books, but his claim to fame rests on his pioneer efforts in the operative treatment for rupture of the urinary bladder. He was the first surgeon to perform abdominal section for this condition, to wash out the

peritoneal cavity, and to stitch the ruptured viscus. A paper published by him in the "Lancet" of 1886 on this method of treatment may be read with advantage by surgeons even to-day.

MacCormac obtained the fellowship of the Royal College of Surgeons in 1871. He was elected to its council in 1883, and in 1896 he had the honour to be elected to its presidential chair, a position to which he was re-elected four times in succession. He was created a baronet in 1897, and in the following year he was appointed surgeon-in-ordinary to the Prince of Wales (afterwards Edward VII). His career would now seem to have settled into that of a successful surgeon. But the call for adventure once more claimed him, and on the outbreak of the South African War in 1899, he sailed with the South African Force as a consulting surgeon. In this capacity he served for only four months. Dysentery claimed him as a victim, and he died of its effects in Bath on December 4, 1901.

On February 18, 1871, the "Lancet" reports a special meeting of the Ulster Medical Society held in the library of the General Hospital, at which consideration was given to the "Lancet" Medical Act Amendment Bill. The Society approved in general terms of this Bill.

HENRY MURNEY, M.D., was elected president of the Society for 1871-2. He was born in 1825, and died August 25, 1907. A man of a retiring nature, Murney did not take a very prominent place in our profession, though his influence must have been considerable in his position as senior assistant to Professor Redfern in the Department of Anatomy in the old Queen's College. He was a surgeon on the staff of the General Hospital in Frderick Street, and had a large private surgical practice.

During Dr. Murney's year of office a discussion was raised as to the "propriety of asking the British Medical Association to hold its annual meeting in Belfast in 1873." The proposal was negatived by a majority of one.

HENRY MARTIN JOHNSTON, L.R.C.S.I., was the Society's choice for 1872-3. Dr. Johnston was born in 1827, the son of a Presbyterian minister in Tullylish. He died on March 3, 1878, leaving the reversion of his property for the benefit of the poor, suffering from cancer and consumption, in the district where he had chiefly practised. He was educated in Belfast and Dublin, and after taking his medical degree he spent some time in London, but soon returned to Belfast as a dispensary medical officer. He was afterwards appointed visiting surgeon to the Belfast Union Infirmary.

At the annual meeting of the Society held on November 9, 1872, in the library of the General Hospital, it was agreed in future to meet on every alternate Saturday during the session, instead of every Saturday as heretofore.

JOHN MOORE, M.D., was elected president for session 1873-4. Dr. Moore had long been an active member of the Society, and had served it for many years as its honorary secretary. He is chiefly remembered as the founder of the North of Ireland

Branch of the British Medical Association. He was one of the surgeons attending the Royal Hospital, and at the time of his death, on May 2, 1887, he also held the post of surgeon to the Belfast Jail. He was a man of the loftiest ideals in everything pertaining to the honour and dignity of the profession and the conduct of human affairs. Indeed, herein lay the strength and the weakness of his character. His ideals were so sublime that they were often impossible, and failure fretted his sensitive spirit and helped to wear out his active mind. At the time of his death he had gone to Crieff for a much-needed mental rest.

During Dr. Moore's year of office the Society published its transactions for the first time. These were printed in the Quarterly (Dublin) Journal of Medical Science. They include four papers by Dr. Moore and one by Dr. Fagan.

Dr. Moore's papers were:—(1) A patient whose elbow had been excised six months previously, and who was following his occupation of an attendant to a machine in a paper factory. (2) A case of amputation and use of Esmarch's means of restraining hæmorrhage. (3) A case of labour complicated with abnormal presentation. (4) A case of dislocation of the hip-joint, reduced by flexion and rotation.

Dr. Fagan's paper was entitled, "A Case of Noma Pudendi."

The meetings which follow are all of the same nature: The exhibition of patients following treatment, the exhibition of pathological specimens, and the reading of notes of unusual cases.

These communications, if one may judge from the published Transactions, usually resulted in well-informed criticism and in wide discussions. The principle of one person reading a paper, with a few friends complimenting him on it, had not then been evolved in the Society.

The meeting reported in the Transactions as occurring on February 26, 1874, had before it an interesting paper by Dr. Henry MacCormac, entitled, "Exercise of the Heart." This is the first formal paper on a specific subject ever read before the Society.

Dr. MacCormac in this paper begins with the thesis that exercise develops and strengthens the cardiac muscle fibres, aerates the blood, and at the same time cardiac fat is only sparingly developed. The heart's action as a result "becomes reliable, and equal to all life's exigencies."

MacCormac advocated walking and light garden work as the best treatment for irregular or "excessive" action of the heart, which he held to be really a "functional disorder attendant on our civilization."

Charles de la Cherois Purdon, M.D., was elected to the presidential chair for session 1874-5, and during his term of office the Society probably had more papers and reports placed before it than at any time in its previous existence. Dr. Purdon was born in Belfast in 1819; he was educated in the Royal Academical Institution, Belfast, and at Trinity College, Dublin, where he graduated M.A., M.B., in 1840. He practised in Belfast, but spent much of his time in the study of archæology.

He was a man of unblemished character, and he did much for the amelioration of the condition of the working classes. He died on January 8, 1882.

THOMAS KENNEDY WHEELER, M.D., was president in 1875-6. He was one of the most popular medical practitioners of his time, and it is doubtful if the death of any medical man ever produced such universal sorrow as did that of Dr. Wheeler. His presidential address was entitled "Puerperal Eclampsia." He was born in 1825, and died on January 13, 1888.

RICHARD ROSS, M.D., elected president for 1876-7, was known to all his hospital patients as "the good physician." His obituary notice in the "British Medical Journal," written by one of his former colleagues, states: "Dr. Ross was one of the purest, kindest, most unselfish, and most faithful men who have ever adorned the profession of medicine. His nature had no flaw of meanness or pettiness. He was absolutely devoid of jealousy, or greed, or unworthy ambition. He lived for his profession and his patients, and he received in return an enthusiastic affection and a profound esteem such as few men have ever evoked. No word of bitterness, or censure, or discontent, or repining ever passed his lips. His presence brought help and comfort and benediction wherever he went. If ever man 'wore the white flower of a blameless life,' it was Richard Ross. Indefatigable in labours, unwearied in well-doing, careless of self, prodigal of professional aid, of wise counsel, and of kind sympathy, he passed to his rest amidst the deepest and most unaffected mourning." He died November 13, 1895, aged sixty-eight years.

The minutes of the Society are particularly full for this session, possibly due to the enthusiasm and earnestness of its new honorary secretary, young Dr. William Whitla, afterwards Sir William, whose name adorns the present Medical Institute.

GEORGE F. WALES, M.D., was the president elected for 1877-8. The changes inaugurated by Dr. Whitla now begin to show themselves, and instead of meetings devoted to a number of clinical cases, formal papers and discussions begin to appear. Dr. Wales seems to have been infected with these new ideas, and at the first meeting of his session of office opened a discussion: "Alcohol: Is its moderate use beneficial or injurious?"

"The subject proved to be of nearly as much interest to the members," the entry in the minute book reads, "as it is of profit to its vendors." The discussion seems to have been a lively one, and only at the end of the fourth night was the president able to put the findings in the form of four resolutions to the meeting. Briefly these findings are: "That in health alcoholic stimulants are unnecessary, and that they are generally harmful."

During this session Dr. Robert Esler read a paper entitled, "On the Disposal of the Dead." An animated discussion followed this paper, on the practice of wearing funeral emblems (shoulder-scarves, etc.). It was resolved, at the end of the discussion: "That believing the custom of wearing shoulder-scarves at funerals by medical men to be objectionable, we resolve, as far as we can, to discountenance the practice."

At this time it was customary for the doctor who had attended the deceased to be requested to attend the funeral, and he and the clergyman wore, in the case of a young person, white linen shoulder-scarves; in the case of middle-aged persons, white linen scarves bordered with black; and if an old person, the scarves were usually of black silk or black crepe.

The practice of wearing shoulder-scarves at funerals probably originated in the practice followed early in the nineteenth century, of lending out cloaks on hire to funerals by the Church authorities. The prices charged ranged from one shilling to a pound, according to quality. The number of cloaks worn indicated the social position of the deceased.

ALEXANDER HARKIN, M.D., was president for 1878-9. Dr. Harkin was born in 1817, and died at the age of seventy-seven years on January 4, 1894. He was a great supporter of the Ulster Medical Society, and one of its most regular attenders. He read many papers on clinical cases before it, and his publications cover a wide range of subjects. He had a fertile imagination, and he was never at a loss for theories to account for his clinical observations. His name deserves to be mentioned in the history of medicine, for he was the first observer who systematically tested the effects of a large blister applied over the heart in uncomplicated cases of acute rheumatism. He held that this practice reduced temperature, and rapidly removed most of the symptoms in a very remarkable manner. Not content with these observations, he insisted upon a new pathology for *rheumatism,* which *he defined as endocarditis.*

Dr. Harkin had a highly-cultivated literary taste, and some of his unpublished lyrics are said to "give evidence of touching pathos and profound religious feeling."

His presidential address, following the example of Dr. Wales, took the form of opening a discussion on "The Milk Feeding of Infants at Nurse." He began by saying: "The proposition which I hope to establish is, that in the unreasonable and excessive dilution of cow's milk practised by mothers and nurses in the feeding of infants, sanctioned and taught by many members of our profession, serious injury is done to the nursing child."

He agreed that cow's milk was stronger than human milk, and he would therefore dilute it with a little water, but at the same time add a small quantity of sugar, in which it was deficient.

This seems to have been rank heresy to the teachings of the time, for it raised a storm of protest and differences of opinion. So strong were these differences that the discussion ended only after three evenings had been devoted to it, and even then no resolution was passed on the matter, either for or against.

This year is also interesting for the fact that, apparently for the first time, the use of hot water was advocated in the treatment of cases of post-partum hæmorrhage.

PROFESSOR ROBERT F. DILL, M.D., was elected president for 1879-80. Born in 1811, Professor Dill died July 20, 1893. Esler writes of him: "He was at once

professor, coroner, gynæcologist, and consultant. He was an ardent friend, an honest enemy, an able debater, and a popular president."

He was appointed to the Chair of Midwifery at Queen's College, Belfast, in 1868, a post which he occupied up to the time of his death.

He was the author of many papers read before the Society, but none which raised more discussion than his advocacy for "An Alternative Operation for Cæsarean Section."

The operation proposed was performed as follows :—(1) The incision was made from the anterior superior iliac spine to the symphysis pubis, through the abdominal wall down to the peritoneum. (2) The peritoneum, instead of being incised, was raised and turned back so that a "free entrance to the vagina" was made, and the os uteri exposed. (3) The os uteri was then brought into the open wound on the abdomen. (4) The hand was next introduced into the uterus through the os, and the child removed by forceps.

The advantages urged for this operation are :—

(1) The peritoneal cavity is not penetrated.

(2) The uterus is not excised.

(3) It can be performed with a fair chance of success, whereas cæsarean section "had an alarmingly high death-rate."

This paper also proposes "ablation of the uterus," an operation advocated in Germany, and introduced to the attention of the Ulster Medical Society for the first time by Dr. Dill.

John Walton Browne, D.L., M.D., M.R.C.S.Eng., was president in 1880-1. Dr. Browne, afterwards Sir John, was born in 1845, the son of Dr. Samuel Browne, R.N., J.P., mayor of the city of Belfast in 1870. He died on December 19, 1923. He was one of the great personalities of his day, a picturesque figure, with a ready tongue at repartee, with strong, almost violent, views on every matter affecting the profession. He was appointed an honorary ophthalmic surgeon to the Belfast Ophthalmic Hospital, Belfast, in 1875. Browne was a candidate for the Chair of Surgery at Queen's College in 1881, and although unsuccessful, his candidature was endorsed by a memorial signed by 237 graduates and former students of the Belfast Queen's College, and by sixty-three senior students of the Belfast Medical College. The memorial read : "That owing to Dr. Browne's great popularity as a teacher in surgery, and his success as one of the most brilliant and dexterous operators in the North of Ireland, his appointment to the Chair of Surgery would be of the greatest benefit to the Belfast Medical School."

Browne was knighted in 1922 for his public services during the Great War. He had an extensive practice, and following the Armagh railway disaster, he acted as surgeon for the Great Northern Railway (I.) in conjunction with Dr. Palmar of Armagh. He was medical referee in Belfast for most of the insurance companies, and his opinion was always looked upon as being of great value. As a witness in

the court of law he appeared thousands of times, and his evidence was always listened to with great respect.

His presidential address was entitled, "Chloroform and Ether: Their Advantages and Disadvantages." He held a firm and unshaken faith in chloroform as the most satisfactory anæsthetic then in existence. He said: "By proper care, chloroform is a sufficiently manageable and safe agent for use, and that it is not the chloroform which is to blame (for fatalities), but the mode of administration." A characteristic remark of this strong-willed man.

During his year of office a lengthy discussion was raised on "Abuses of the Medical Charities of Belfast." Resolutions were drawn up, and sent to the various hospitals. The wording of these resolutions is unfortunately lost.

Professor James Cuming, M.A., M.D., F.R.C.P.I., was elected president for the second time, in 1881. His presidential address reviewed the changes in practice during a period of thirty years. It is characterized by shrewd guesses on possible further changes, which in later years actually occurred.

(*To be concluded in the July issue of this Journal.*)

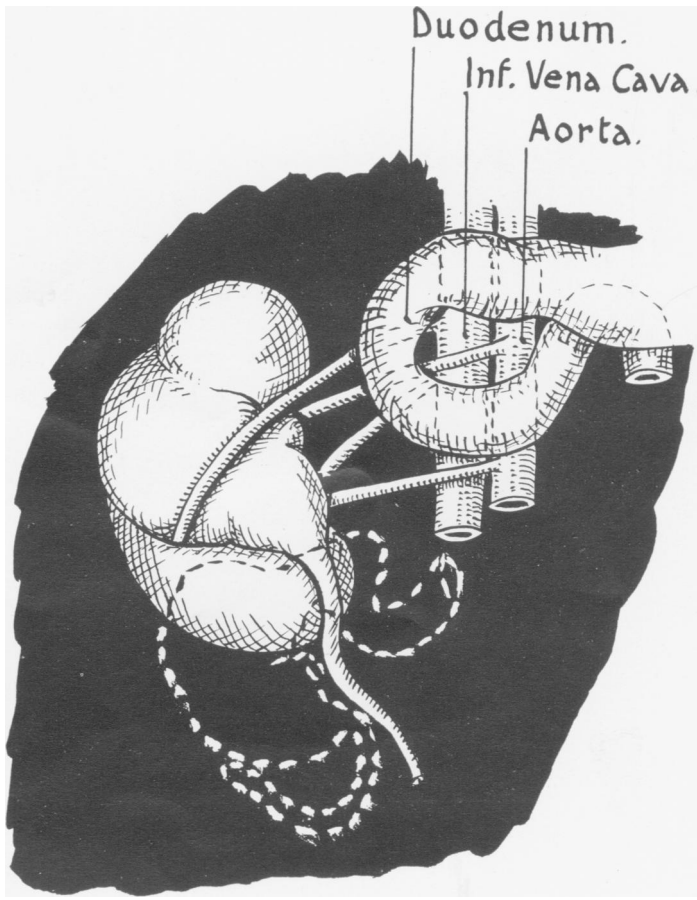
BRITISH MEDICAL FILMS

With the tremendous advance in recent years of cinematography, it is not surprising that it has now become one of the recognized methods of giving instruction to medical students. General biology, anatomy, physiology, and surgery have all come within the scope of its technique, and to-day quite an extensive series of films is available for teachers. Full advantage has not yet been taken of these films, partly because no complete list was available; but this difficulty has now been overcome. The British Film Institute has just issued a catalogue of British medical films of technical interest to practitioners and students, including the names of the owners of the various films, and the terms under which they may be hired. This will prove a boon to teachers who wish to employ this method of instruction.

The British Film Institute was founded in October, 1933, as a result of the recommendations contained in the report of the Commission on Educational and Cultural Films, "*The Film in National Life.*" One of the functions of the Institute is to co-ordinate and develop the uses of cinematography for educational and cultural purposes. In order to carry out its activities effectively it has formed a number of panels, of which the medical panel is responsible for the Institute's work in respect of films that are of technical interest to medical practitioners and students.

Since the formation of the panel it has been engaged in collecting information of existing medical films in the British Isles. It issued a questionnaire to all the medical schools and universities in Great Britain, and to all bodies interested in hygiene and public health, and the present catalogue has been classified, so far as existing films permit, in accordance with the medical curriculum.

It is, however, realized that there may be medical films in existence made by



Hydronephrosis in a new-born infant. The terminal ileum and cæcum are indicated in dotted line.

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TENTH BRITISH CONGRESS OF OBSTETRICS AND GYNÆCOLOGY, BELFAST, APRIL 1, 2, AND 3

THE Tenth British Congress of Obstetrics and Gynæcology was held in the Institute of Pathology, Queen's University, Belfast, and in the Royal Maternity, Royal Victoria, and Mater Infirmorum Hospitals. The president was Professor R. J. Johnstone, Belfast, with Mr. C. H. G. Macafee and Dr. F. M. B. Allen as honorary secretaries. Many interesting demonstrations were given, and a number of social functions took place. The president's reception in the Great Hall of the University was one of the most successful functions ever held there, and the warmest thanks of the Congress was offered to Professor and Mrs. Johnstone for their hospitality. The Queen's University entertained the Congress to lunch in the Students' Union; and the Congress dinner was a brilliant affair held in the Grand Central Hotel, to which a number of distinguished guests were invited.

The communications were of the most varied nature, and they ranged over some of the most important sections of gynæcology and obstetrics.

Professor James Hendry (Glasgow) read a paper entitled "The Results of Conservative Treatment of the Ovaries." This paper covered every phase of the subject, including the dangers of conservative treatment. The conclusions reached by Professor Hendry were :—

(1) Ovarian tissue should be saved *in situ* wherever possible.

(2) Conservative treatment of pelvic inflammatory lesions has reduced the call on supplementary surgical measures to conserve ovarian function. Late operation, should it become necessary in such cases, allows much better scope for preserving ovarian tissue in its natural relationships.

(3) Where the uterus or a functional part of it is saved, and healthy ovarian tissue cannot be retained in its natural relationships, ovarian grafts may be used to conserve either fertility or menstrual function.

(4) Where the uterus is removed, the conservation of ovarian tissue is not essential, and may give rise to difficulties at a later date. The function of the retained or grafted ovarian tissue is of such limited duration that it might be substituted by the administration of standardized ovarian hormones.

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Dr. Bethel Solomons (Dublin) discussed "The Conservative Treatment of Pathological Conditions of the Fallopian Tube." He gave as his opinion that the average percentage successes after operation is about ten, and that the use of lipiodol is not safe.

Dr. A. Leyland Robinson (Liverpool) presented a valuable communication : "The Results of Conservative Treatment of the Uterus." He said that since the preservation of life is the first duty of the surgeon, both function and structure must be sacrificed in the interests of life itself, and that the merits of any therapeutic procedure must be judged primarily by the immediate risk which it entails for the patient.

Innocent tumours readily lend themselves to simple surgical measures, he said, and myomectomy for fibroids is now recognized to be a valuable procedure. Much controversy centred round the question of sub-total versus total hysterectomy for cases of malignant disease, but according to the most recent figures published by Fahndrich, it would appear that the risk entailed by conservation of the cervix has been exaggerated.

The conservation of uterine function has been encouraged still further by the modern conception of the significance of uterine displacements. The surgical treatment of prolapse is now firmly established, which will enable the surgeon to cure the mechanical disability without hindrance to any of the functions of the genital tract.

For the relief of retroversion it was concluded that surgical methods have declined in favour, because it has been realized that active interference is rarely required for simple types of backward displacement.

Surgical methods also seem to have been displaced by the introduction of other forms of treatment, such as radium, X-rays, and hormone therapy.

Other papers read at this meeting included :—"Myomectomy," by Mr. A. A. Gemwell (Liverpool); "Conservative Treatment of Endocervicitis," by Dr. Herd (Liverpool); "Conservative Therapeusis in Gynæcology," by Dr. De Sa (Bombay); "The Radiumhemmet Method of Treatment and Results in Cancer of the Corpus of the Uterus," by Dr. J. Heyman (Stockholm); "Uterine Carcinoma Following Radiotherapy for Benign Lesions," by Professor G. I. Strachan (Cardiff); "The Use of Radium in the Treatment of Uterine Bleeding," by Mr. Percy Malpas (Liverpool); "The Treatment of Uterine Hæmorrhage," by Dr. L. Martindale (London); "Constructive Pelvic Surgery for Genital Prolapse," by Dr. George G. Ward (New York); "Clinical Uses of the Female Sex Hormones," by Dr. C. Kaufmann (Berlin); "Organotherapy for Functional Uterine Hæmorrhage," by Dr. T. N. A. Jeffcoate (Liverpool); "Primary Malignant Diseases," by the late Professor W. Blair-Bell and Mr. M. M. Datnow (Liverpool); "The Prevention of Puerperal Sepsis," by Dr. Colebrook (London); "The Contracted Pelvis in Scotland," by Dr. H. R. MacLennon (Glasgow); "Further Observations on the Relationship of Pregnancy to Chronic Nephritis and Hypertension," by Dr. G. W. Theobald (London).

A cinema film illustrating the development of the female genital organs was shown for the first time by Dr. M. MacConaill (Sheffield).

A Case of Appendicitis of Unusual Etiology

By J. J. MORIARTY, M.B.,
Assistant Surgeon, Mater Infirmorum Hospital, Belfast

THE undernoted case appears to be of sufficient rarity to merit recording :

The patient, a girl of seventeen years, was admitted to the Mater Infirmorum Hospital on 3rd November, 1935, as a case of acute appendicitis. She gave a typical history of abdominal pain followed by nausea and vomiting, the pain later settling down in the right iliac fossa, where, on admission, she was tender and rigid. Immediate operation was decided on. At operation nothing unusual was noticed, the appendix showing signs of acute inflammation in its early stages. An uneventful, rapid, convalescence followed. On opening the appendix after the operation I was surprised to find what at first I thought was an orange pip in the terminal end of the organ with a fæcolith proximal to it, blocking the lumen. Active movements of the "pip," however, proved it to be very much alive, and microscopic examination showed it to be a segment of a tapeworm. The girl gave no history of having passed any segments of tapeworm, though of course she may not have been willing to admit it, and one consequently cannot place any reliance on this. It was not thought advisable to treat her for tapeworm until fully recovered from her operation, and pressure of cases did not allow her to be kept for further treatment.

Threadworms are, of course, a comparatively common cause of appendicitis, especially in children, as also are round-worms, but, as far as I am aware, tapeworm as a cause is definitely uncommon. Furthermore, the segment being alive, though shut off in the tip of the appendix by a fæcolith, adds a further element of interest to the case.

Congenital Hydronephrosis in a New-born Infant

By RICHARD H. HUNTER, M.D. M.CH.,
Queen's University, Belfast

NUMEROUS cases of congenital hydronephrosis have been described, but most of them are in advanced stages of dilatation and the primary etiological factors cannot be easily deduced. The report which follows is a case of congenital hydronephrosis in a new-born infant, in which the dilatation is not very great and the causative factor can apparently be demonstrated; it is, therefore, thought to be of sufficient interest to report.

The large intestine of this infant passed from the right iliac fossa upwards, backwards, and to the left to the splenic flexure. The part representing the ascending colon was, as is usual, very short, and there was a form of infantile cæcum with a

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The large intestine of this infant passed from the right iliac fossa upwards, backwards, and to the left to the splenic flexure. The part representing the ascending colon was, as is usual, very short, and there was a form of infantile cæcum with a

long appendix. The cæcum was, however, situated much lower than usual and lay in the iliac fossa. The first part of the oblique portion of the gut had not acquired its usual relation to the duodenum, but crossed the lower pole of the kidney, to which it was firmly bound by strong fibrous tissue. This part of the gut was a narrow cord-like tube with an extremely narrow lumen; it was, further, bent upon itself almost at right angles. The remainder of the colon, beyond this narrow portion, was greatly dilated and filled with meconium. On dissection, the ureter was found to pass downwards over the anterior surface of the lower pole of the kidney, and to be compressed between it and the narrow portion of the gut. Above this point the ureter was greatly dilated, forming a hydronephrosis of the pelvic type, and there can be little doubt that this condition was brought about by the pressure of the gut.

THE NATIONAL EYE SERVICE

THE National Eye Service, which is operated by the National Ophthalmic Treatment Board (N.O.T.B.), is designed to provide an expert medical examination of the eyes, together with accurately-made glasses where necessary, at a moderate "all-in" cost. An advantage in this is that pathological conditions are likely to be recognized at an early stage, when some remedial treatment can be carried out. The total average cost of the service, including ophthalmic examination and glasses, varies between 14s. and 36s. 6d. for a single pair of glasses, according to the prescription and style of glasses selected.

In the drawing up of the scheme, the British Medical Association took a leading part, and it has been given widespread support from the medical profession generally, including ophthalmologists.

In every large centre the Board has a panel of ophthalmic surgeons, and the patient is at liberty to choose from this list whomsoever he may prefer, or whoever may be indicated by his doctor.

The patient is seen at the surgeon's rooms at a time arranged by the Board's representatives to suit the surgeon and himself, thus escaping the long periods of waiting that are unavoidable at hospital clinics.

Those entitled to benefit under the scheme may be classed in three groups :—

(1) All state insured persons.

(2) Dependents of state insured persons.

(3) Any member of the community whose total family income does not exceed £250.

Doctors who wish to refer their patients under this scheme should send the patient to Messrs. Murray & Abernethy, 15 Donegall Square South, Belfast, or telephone Belfast 21669, when an explanation can be given as to how the scheme

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If the patient is an insured person and entitled to ophthalmic benefit, whatever grant is allowed him by his Society goes towards the total cost. It may be mentioned that a number of Health Insurance Societies, now including the Prudential Approved Societies, allow the sum of 10s. 6d. (to cover the surgeon's fee in full) in addition to their regular grants towards the cost of glasses.

Other Societies, in all cases where ophthalmic benefit is given, make a grant of five shillings towards the cost of examination, the balance of 5s. 6d. being made up by the member.

In such cases it will be seen that for the small additional cost of 5s. 6d. to the patient, an expert medical examination is provided. It may also be pointed out that often the reduced prices charged for glasses to N.O.T.B. patients will neutralize this additional cost.

Since the scheme was started some years ago, patients numbering many thousands have been dealt with.

The representatives of the Board in Belfast and Londonderry are Messrs. Murray & Abernethy, Dispensing Opticians, 15 Donegall Square South, Belfast, and at Market Buildings, Strand Road, Londonderry, who will be glad to furnish further information concerning the scheme to any medical practitioner who may be interested.

ULSTER MEDICAL SOCIETY

THE fourth meeting of the session was held on Thursday, 16th January, 1936, in the Whitla Medical Institute. The president, Dr. Foster Coates, occupied the chair.

Two papers were read, one by Dr. R. W. M. Strain, entitled "The Etiology of Erythema Nodosum," and the other by Mr. J. M. Wheeler, entitled "The Causes, Care, and Prevention of Blindness." These two papers are published elsewhere in this number of the Journal.

The fifth meeting of the session was held on Thursday, 30th January, 1936, in the Whitla Medical Institute. The president, Dr. Foster Coates, was in the chair. Professor P. T. Crymble read a paper entitled "The Surgery of the Colon." A long discussion followed, in which the gynæcologists took a prominent part, with reference to the surgery of the pelvic end of the colon. It was suggested that the good results obtained in cases of cancer of this part of the colon, by gynæcologists, could be explained by the fact that they found the condition at an early stage, when treating some other pelvic condition, long before the patient had noticed anything

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unusual in her condition. The general surgeon, unfortunately, rarely saw this condition until the disease had advanced so far that surgery was of little avail.

The sixth meeting of the session was held on 13th February, 1936, in the Whitla Medical Institute. This was a combined meeting between the Ulster Medical Society and the Radiological Society of Ireland, with Dr. Foster Coates in the chair. Two interesting papers were communicated by Dr. Hardman and Dr. McConnell, both of Dublin. It is hoped to publish these papers in the next number of the Journal.

The annual laboratory meeting was held in the Pathological Institute of Queen's University on Thursday, 27th February, 1936. Dr. Foster Coates, the president, occupied the chair at the discussions which followed the exhibition of a large collection of pathological specimens, and demonstrations on some newer methods of value in clinical pathology. The latter included a simplified Wassermann test by Dr. Eileen Hickey, a rapid micro-method for estimation of urea in the blood by Dr. J. T. Lewis, and the Cramer and Bannerman method for making blood-platelet counts by Dr. T. H. Shaw. Dr. P. A. Clearkin gave a beautiful demonstration on the effects of certain drugs on the growth of normal and malignant cells grown *in vitro*. There was also a beautiful demonstration of X-ray films by Dr. Douglas Boyd.

The seventh meeting of the session was held in the Whitla Medical Institute on Thursday, 5th March, 1936. The president, Dr. Foster Coates, occupied the chair. Dr. R. H. Hunter, of Queen's University, read a somewhat lengthy paper entitled "The History of the Ulster Medical Society." This paper is to be published in two parts, the first of which appears elsewhere in this number of the Journal.

H. Hilton Stewart, *Hon. Editorial Secretary.*

18 Malone Road, Belfast.

BRITISH MEDICAL ASSOCIATION NORTH-EAST ULSTER DIVISION

The Division met in the Cottage Hospital, Coleraine, on Monday, 6th January, 1936. The chairman, Dr. J. C. M. Martin, presided over a fair attendance of members. After routine business, it was decided to hold the annual dinner at the Causeway Hotel on Thursday, 9th April.

The following Kodak medical films were then shown :—"Treatment of Fractures of the Spine by Bohler's Method," "Structure and Care of the Feet." The films were most interesting and instructive.

A vote of thanks was passed to matron and her staff for very kindly entertaining those present to tea. The usual silver collection for medical charities was taken at the close of the meeting.

A further meeting of the Division was held in the Café, Coleraine, on Monday, 24th February. Arrangements for the local entertainment by the Division of members and their friends attending the 1937 meeting of the Association in Belfast were discussed, but, owing to the small attendance, the matter was adjourned.

Mr. G. R. B. Purce, F.R.C.S., read a most interesting and carefully prepared paper on "Surgical Treatment in Pulmonary Tuberculosis." The paper was profusely illustrated by a series of very clear X-ray films, which added greatly to the understanding of the lecturer's remarks. Mr. Purce is publishing a fuller account of this work at a later date.

Dr. Bateman proposed, and Dr. Ross Thomson seconded, that the best thanks of the meeting be given to Mr. Purce for his excellent paper.

J. M. HUNTER, *Hon. Secretary.*

36 Eglinton Terrace, Portrush.

BRITISH MEDICAL ASSOCIATION
NORTHERN IRELAND BRANCH

DR. WM. LYLE presided at the meeting held on 6th February, when Mr. S. T. Irwin gave an account of his journey to Australia and back with the B.M.A. In view of the general interest of the address, members were asked to bring ladies, and as a result the lecture room of the Whitla Medical Institute was filled to capacity. Mr. Irwin proved, as always, a model lecturer, and was successful in sustaining the interest of his audience throughout. In company with Mrs. Irwin he joined the party which travelled across Canada, then linked up with the trans-U.S.A. contingent at San Francisco. The whole party then went across the Pacific to Fiji, and on to Australia, where the meeting was held in Melbourne. The return journey was made to the Dutch East Indies, Singapore, India, Aden, Egypt, and home. Mr. Irwin had taken numerous photographs, and his lecture was illustrated by about 120 lantern slides made from a selection of these. Not the least interesting feature of the address was the story of old Queensmen who had settled in far-off lands, and who often travelled long distances to renew the intimate touch with the home country which this opportunity provided. As a rule, Mr. Irwin had a photograph to show of some face well known to many in the audience. A hearty vote of thanks was passed to Mr. Irwin for his admirable lecture, on the proposal of Mr. A. B. Mitchell, seconded by Dr. Foster Coates.

F. M. B. ALLEN, *Hon. Secretary.*

73 University Road, Belfast.

BRITISH MEDICAL ASSOCIATION ANNUAL MEETING, 1937

It is now generally known that this meeting is to be held in Belfast, and already the Executive Committee have appointed a number of sub-committees to consider the arrangements. Many of these committees have started work, and some of the more difficult problems are under consideration. It is impossible to arrange hotel accommodation for all the visitors, and alternative arrangements have been considered. The housing of the Trades' Exhibition in suitably central quarters where it is bound to be seen and inspected by delegates is another of the many problems under discussion.

The housing of the scientific sections will not be difficult, for the university is ideal for the purpose, but the social entertainment of our visitors will tax the Executive to the utmost, not only because halls large enough for dinners and dances are difficult to find, but because most of the expenses of the meeting have to be met by a special fund of the local Branch.

Within the next few weeks every member of the medical profession in Northern Ireland will be circularized with an appeal for this fund, and as it is largely on the result of this appeal that the success of the meeting depends, the Executive Council hope that as many as possible will subscribe to it.

W. R. M. Strain, *Assistant Hon. Secretary.*

9 University Square, Belfast.

LONDONDERRY MEDICAL SOCIETY

The third meeting of the Londonderry Medical Society was held in the City and County Infirmary on Friday, 24th January, 1936, at 8.15 p.m. The president, Dr. A. Malseed, welcomed Dr. S. B. Boyd Campbell, who had so very kindly accepted the invitation of the Society to come and give an address. Dr. Campbell chose as his subject, "The Diagnosis, Prognosis, and Treatment of Coronary Thrombosis." This was listened to with very great interest by all present, and it formed the focus of a very interesting discussion which followed its conclusion.

The fourth meeting of the session 1935-6 was held in the City and County Infirmary, Londonderry, on Friday, 28th February, at 8.15 p.m. This meeting marked a departure from precedent, in that it was devoted to a subject not altogether strictly medical, as generally recognized, but which at the same time would be of the greatest benefit to medical practitioners, their patients, and the public at

large, if more attention were paid to it. I refer to that part of the doctor's work which has to do with matters of law, in which the doctor has to appear as a witness. Mr. Wm. Lowry, K.C., was the lecturer on this occasion, and there was a very large turn-out of members to welcome him. The subject of his address was "The Doctor in the Witness-box," and it need not be commented upon how interesting and informative to each and everyone this lecture was. Mr. Lowry pointed out that inevitably, sooner or later, every doctor would be drawn into a legal case, whether he wished it or not, and that it behoved him to take stock of his position, so that he would not let down, as indeed in the lecturer's experience very often happened, either himself, the subject of his evidence, not to speak at all of his profession.

The sort of cases in which medical evidence was likely to be called fell into five large groups, viz.: (1) Murder and cognate crimes, (2) testamentary capacity, (3) workmen's and accident compensation cases, (4) insanity, (5) drunkenness, etc. Mr. Lowry showed quite clearly that in all the cases above numerated, it would nearly always be the medical evidence which would determine the findings, consequently the doctor had a great responsibility; and that very often, as a result of not appreciating his position, or to muddled thinking, injustices were done. In order to correct this, Mr. Lowry thought that the best thing for a witness to do was to try to form a mental picture of the case as a whole, and that he would then find that he would not give undue attention to any one part to the exclusion of the rest, which might be of every bit as much importance. Secondly, that he should strive to give his evidence clearly, without ambiguity, and in as simple language as possible, and to remember that, in view of his rôle as a special witness, the court will always allow him to qualify his remarks, provided that they are cognate to the evidence given.

At the conclusion of Mr. Lowry's address, a vote of thanks was proposed by Dr. W. G. McKinney, and seconded by Dr. J. Moore Johnston. This was passed with acclamation, and conveyed to Mr. Lowry by the president, Dr. A. Malseed. Mr. Lowry suitably replied to this, and also answered some questions put to him by members present.

J. A. L. JOHNSTON, *Hon. Secretary.*

19 Clarendon Street, Londonderry.

BRITISH MEDICAL ASSOCIATION
TYRONE DIVISION

THE Tyrone Division, B.M.A., by special invitation from Dr. J. M. Johnston, medical superintendent of the Tyrone and Fermanagh Mental Hospital, Omagh, visited the above-mentioned institution on Thursday, 6th June, 1935, at 4.30 p.m.

The members were shown round the institution by Dr. Johnston, and were very much impressed with the work carried out there and the improvements made since Dr. Johnston took charge of the institution. After having made a tour of the institution, the members were entertained to tea by the matron, Miss Robb, and later a meeting of the Division was held in the Boardroom.

The minutes of the last meeting were read, and signed by the chairman. Letters were read from the following, concerning the grievances of dispensary doctors, as laid out in our circular letter sent to all members of the Northern Parliament, Head Office B.M.A., Irish Medical Secretary, Branch, and Divisions :—J. H. Robb, A. B. Mitchell, Edward Archdale, Dr. Hennessy, J. B. O'Neill (Secretary, Ministry of Home Affairs, N.I.).

A letter was read from the Branch suggesting that Divisions appoint representatives to meet in Belfast to consider the above. Dr. W. Lyle and Dr. Lagan were appointed.

Dr. Gillespie proposed that the secretary draft out a circular and send a copy to each dispensary medical officer, requesting them to send particulars concerning any difficulties met with in the certification of persons of unsound mind under the new Mental Treatment Act, and also claims for fees for attendance on difficult midwifery cases; this was seconded by Dr. W. Lyle.

A letter was read from the Branch that an Executive Committee was being formed upon which each Division will have a representative, and asking us to appoint our representative. Dr. Lagan proposed that Dr. Spence be appointed, and the secretary instructed to write to him and find out if he is willing to act in this capacity.

A special meeting of the Division was held in the Tyrone County Hospital, Omagh, at 4.30 p.m. on Thursday, 17th October, 1935. Dr. Lagan (chairman) was in the chair.

Before the meeting, Dr. R. S. Allison, M.D., M.R.C.P.Lond., gave a lecture, illustrated by lantern slides. The subject of his lecture was "Anxiety Neurosis, Hysteria, and Allied Disorders."

A vote of thanks to Dr. Allison was proposed by Dr. Lagan and seconded by Dr. Eaton, and passed unanimously. Dr. Allison suitably replied.

Tea was provided by the matron, Miss Snodgrass, and then a meeting of the Division was held.

The Association's report on Immunization, including vaccination, was discussed.

The Association's proposed resolution *re* salaries of whole-time Public Health medical officers was read and adopted.

A long discussion took place between the dispensary medical officers of the Division concerning the issuing of school certificates, the main grievance being that very often on paying a visit on a red ticket, the doctor was brought out, not for a case of sickness, but for the purpose of giving a certificate to a child who had been absent from school for a period up to two or three weeks, the parents having recently received a notice from the Regional Sub-Committee. No action was taken, but the matter was deferred until our next meeting.

A meeting of the Division was held in the Tyrone County Hospital, Omagh, at 4.30 p.m. on Thursday, 26th September, 1935. Dr. Lagan (chairman) was in the chair.

By arrangement with head office, B.M.A., Prof. W. W. D. Thomson, F.R.C.P., delivered a very interesting and instructive lecture, taking as his subject "Modern Conceptions of the Anæmias and Their Treatment," illustrated by appropriate lantern slides and pathological specimens. Dr. W. Lyle proposed a vote of thanks to Prof. Thomson; this was seconded by Dr. Eaton.

Tea was provided by the matron, and afterwards a meeting followed.

The minutes of the last meeting were read, and signed by the chairman.

Dr. Lagan proposed a vote of condolence to Dr. Leary on the great loss he had sustained through the death of his wife, and also a vote of condolence to Dr. Warnock on the death of his mother; this was passed, all members standing, and the secretary instructed to write letters to both these members.

The secretary was instructed to write Dr. Allen as to when a meeting of the Special Committee would be held to deal with the lunacy fees and midwifery fees as laid down in our circular letter of the 28th March, 1935.

At the annual meeting held in the Tyrone County Hospital, Omagh, on Thursday, 12th March, at 4.30 p.m., the following officers for the year 1936 were elected:—Chairman, Dr. J. Chambers; vice-chairman, Dr. R. J. Spence; hon. secretary, Dr. J. R. Martin; hon. treasurer, Dr. G. A. M. Gillespie; representative on Branch Council, Dr. W. Lyle; representative in Representative Body, Dr. W. Lyle. Executive Committee: Dr. G. F. V. Leary, J.P.; Dr. D. F. Murnaghan, Dr. B. Lagan, Dr. A. H. T. Warnock, J.P., together with the above officers.

There was a large attendance of members present, and a programme for the year was made out.

JOHN R. MARTIN, *Hon. Secretary.*

Holmedene, Clogher, Co. Tyrone.

REVIEWS

SURGICAL DISEASES AND INJURIES OF THE GENITO-URINARY ORGANS. By Sir John Thomson-Walker, F.R.C.S. Second edition, revised by Kenneth Walker, F.R.C.S. London: Cassell & Co., 1936. pp. 974; figs. 283, 25 coloured plates. Price 32s. 6d. net.

It is almost impossible to find suitable words with which to offer congratulations to Mr. Kenneth Walker for the excellence of this revised edition of Sir John Thomson-Walker's classical textbook on "Surgical Diseases and Injuries of the Genito-Urinary Organs." This book first appeared in 1914, and quickly established itself as a standard work not only in the British Isles, but on the continents of Europe and America. During the great war, and indeed since that period, enormous advances have been made in urology, and the editor's difficulties must have been many in deciding what to include and what to leave out. He has, however, made a wise selection, and he is to be heartily congratulated on the result of his work.

Yet in spite of this wealth of material, the book is not increased in size. This has been made possible by resorting to smaller type in paragraphs dealing with operation results, and in avoiding the temptation to discuss many points which, although of interest theoretically, are not of great practical importance.

New chapters have been added to the book on pyelography, renal function tests, trans-urethral operations, obstruction at the bladder-neck, impotence and sterility, and so much new material has been added to the chapters dealing with prostatic enlargement, renal tuberculosis, and bladder tumours, that they have been completely rewritten. A short bibliography is a useful addition to the end of each chapter. It is pleasant to read, throughout the book, references to the work of the late Professor Andrew Fullerton, Belfast.

His "muscle-splitting" operation in the catheterization of ureters in renal tuberculosis is recommended; credit is given him for drawing attention to the fact that tuberculosis bacilluria, without a tuberculous lesion of the kidneys, might occur in cases of pulmonary tuberculosis; but his name does not appear to be associated as it should with his observation of unilateral diuresis in the tuberculous kidney.

The book is clearly printed and well illustrated, and can be most heartily recommended not only to the general practitioner, but to surgeons on the threshold of their careers.

SURGICAL EMERGENCIES IN CHILDREN. By H. G. Edwards, M.S., F.R.C.S. London: Baillière, Tindall & Cox, 1936. pp. vii + 274, 99 illustrations. Price 12s. 6d. net.

In the 270 pages of this small book the author has dealt with all the conditions commonly occurring as emergencies requiring surgical treatment in childhood.

The statement that a positive blood-culture in the early stages of infections may denote bacteriæmia rather than septicæmia is confusing. Those who have studied Buhler's teaching will doubt the advisability of treating cellulitis by frequently changed fomentations and baths.

The section on fractures includes the very dangerous statement that a break in the bone will show in the poorest film, and makes no reference to the necessity for films in two planes.

The preparation of compound fractures by scrubbing the skin-edges with soap and water is not to be commended, and the injection of ante-gas gangrene serum is omitted.

The statement that seventy per cent. of cases of appendicitis in children are obstructive, and only half in adults, is not the usual experience, and the use of tubes instead of corrugated rubber is doubtful advice. Otherwise the abdominal sections are very well done. The book should prove very useful to students and others interested in children's diseases.

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Mr. Mekie has succeeded in covering the large field of surgery in a comparatively small amount of space, and yet the book is not surrendered to conciseness. Explanatory notes are included where necessary, which makes for easy reading and understanding.

Among many other excellent features is the inclusion of notes on lymphatic drainage and anatomical points which are necessary for the full understanding of the subject.

In the chapter on the surgery of the thyroid gland, no mention is made of post-operative treatment. When one considers the condition of these patients before operation, no imagination is required to know that only the most intense and careful treatment will be successful in carrying the patient through this dangerous period. The alternate injections, two-hourly, of intravenous digitalin and collosal iodine have more than once proved invaluable.

Anæsthesia is dealt with in each chapter, special indications being given.

It can be confidently recommended to every medical student, who will find how valuable it is to possess a book which is accurate in its presentation, inclusive in its detail, and yet sufficiently concise to be appreciated and digested within a reasonable period of time.

THE MINOR MEDICINE OF GENERAL PRACTICE. By L. V. Snowman, M.A., M.B., M.R.C.P. London: John Bale, Sons & Danielsson, Ltd., 1936. pp. 104. Price 2s. 6d. net.

The average student on graduation soon finds that the course of medicine which has obtained for him his degree leaves many gaps in his knowledge. The experiences of his first "locum" show him that few of his patients suffer from the fully developed diseases of hospital wards, and that his patients mostly suffer from minor ailments, of which little or no thought was given by his teachers. Dr. Snowman, in his little book on "Minor Medicine," apparently realizes this point, and any young man who reads it before entering on practice will bless his name. Sore throats, colds, sciatica, constipation, hiccough, flatulence, headache, and that *bête noire* of the practitioner, bilious attacks, are all discussed in an eminently sane manner, and simple remedies suggested. A point of importance in this little book is the emphasis laid on the fact that these minor disorders may possibly be the early manifestations of major disease. This is an aspect of practice that the busy practitioner may tend to overlook, and it is a happy thought that Dr. Snowman has so clearly brought this point out. This book can be strongly recommended to the attention of newly qualified medical men, and its study will save them many an unhappy hour in wondering how to treat many a patient suffering from minor disorder.

Baillière's SYNTHETIC ANATOMY. By J. E. Cheesman. London: Baillière, Tindall & Cox, 1936. Complete in fourteen parts. Price 3s. per part.

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