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THE SELECTION OF CASES FOR THE MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES.

BY C. D. PARFITT, M.D., M.R.C.S., L.R.C.P., GRAVENHURST, ONT.

Physician in Charge of Muskoka Free Hospital for Consumptives.

The extermination of tuberculosis depends largely on the general practitioner. We look to him to recognize the disease in time, and to make existing sanatoria of the utmost possible use to the community. At the Muskoka Free Hospital, intended and plainly announced to be for the treatment of incipient pulmonary tuberculosis, out of a total of 419 admissions during three years, 32 per cent. have been far advanced cases. Moreover, about one-third of all applications sent are refused on account of obvious unsuitability of cases. That is to say that about five-ninths of all cases recommended by physicians are entirely unsuitable for sanatorium treatment. It is true that people of the working class for whom the institution is intended, are often deplorably late in seeking medical advice. It is also true that where there is any doubt in the mind of a physician, no harm is done by making application, provided that patient and physician are prepared to take a refusal, if necessary. But the fact that some physicians, general practitioners, almost invariably recommend good cases leads to a belief that the cases are to be found and could be given the benefit of the hospital in greater numbers if there were a better general understanding among physicians of the factors that make for suitability or unsuitability of cases for sanatorium treatment.

Considerations other than those of suitability often lead physicians to urge an application. But the hospital is not a home for consumptives. It has seventy-five beds (of which on account of lack of maintenance funds, only from fifty to sixty are available) intended for patients in the incipient stage of tuberculosis, or if in an advanced stage, giving distinct promise of arrest under proper conditions. Our waiting list is so long that accepted cases have to wait from six to eight weeks for admission although the term of residence has been limited to four months. This is equivalent to about fifteen admissions per month in a province where 2,500 die yearly of tuberculosis. It is therefore wrong and unjust to recommend patients because it is a matter of convenience for their physicians to get rid of them, or because they need a home and care, or because they or their sympathetic physicians believe that while there is life there is hope in tuberculosis, for it is obvious that every far advanced case who comes to the hospital is keeping out until too late the wage-earner who has a good chance for recovery.

The question naturally arises as to why any far advanced cases have ever been admitted. The reasons are two: in the early days of the hospital we wished to make our beds of immediate use to the public and accepted our complement of cases with small opportunity for choice before the hospital became known and the applications numerous; now we make careful selection, but the far-advanced cases, though not nearly so many, are still in the hospital, because of the opportunity for misunderstanding or misrepresentation entailed in the only method of admission practicable for the majority of our cases, *i.e.*, the correspondence method. The medical examination form supplied by the hospital, which is no doubt known to most practitioners, is tolerably satisfactory when filled out fully, carefully and fairly. I say fairly, because not infrequently an entirely false representation of the case is given, and usually when the patient arrives, his disease is found to be in excess of that noted on application. Some applications are refused; in doubtful cases the doctor is written to for further information; accepted cases are classified so that the most favorable are, if possible, given preference for early admission. The intention is not to refuse a single favorable case. When a far-advanced case of bad prognosis does gain admission to the hospital, he may be discharged before his four months' term has expired, in order to make way for a better case. To such a patient a month's training is usually given. In that time he can learn the essentials of caring for himself and for others. But the stamp of incurability goes with refusal of application, or discharge before the term is up, and the wise physician saves his patient from bitter disappointment by a careful consideration of the factors for or against a good prognosis before applying, and by refraining from extravagant promises to the accepted patient. Splendid results are obtained with care-

fully selected early cases, but only a small percentage of advanced cases can be arrested. There is often too great optimism on the part of physicians who appreciate sanatorium advantages. Most of our patients come to the hospital expecting to achieve in a four months' term, as definite and final a cure of tuberculosis as they would of typhoid.

Prognosis determines the suitability of any given case for sanatorium treatment. Accurate prognosis in tuberculosis is often a difficult matter. It is nevertheless quite possible to classify the great majority of cases as of favorable, doubtful or unfavorable prognosis. A review of the significance and application of certain accepted arbitrary classifications in the light of sanatorium experience will I believe, help the physician in his prognosis and selection of cases. The National Association for the Prevention of Tuberculosis, at its recent meeting in Washington, recommended that all sanatoria use the following definitions of the terms incipient, advanced and far advanced. With very slight modifications they have been used at the Muskoka hospital since it opened.

Slight initial lesion in the form of infiltration limited to the apex or a small part of one lobe.

No tuberculous complications.

Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight).

Incipient (favorable).

Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours, especially after rest.

Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

No marked impairment of function either local or constitutional.

Localized consolidation moderate in extent with little or no evidence of destruction of tissue ;

Moderately Advanced.

Or disseminated fibroid deposits.

No serious complications.

Marked impairment of function, local and constitutional.

Far Advanced.

Localized consolidation intense ;

Or disseminated areas of softening ;

Or serious complications.

Acute Miliary Tuberculosis.

From the sanatorium point of view incipient cases are essentially of hopeful prognosis. Besides having but little local involvement and very slight constitutional disturbance, the symptoms and signs should point to the absence of a secondary infection. Cases with comparatively few abnormal signs in the lungs, but with severe accompanying constitutional symptoms are often mistakenly recommended as incipient cases because of the comparative lack of pulmonary signs alone, regardless of other more important factors. Frequently they should rather be considered far advanced, and must therefore be rejected, although the duration of disease may have been comparatively short.

The moderately advanced class is a comparatively broad one and contains more cases of doubtful prognosis than either of the others. Secondary infections are frequently present. The disease is more marked, both locally and constitutionally, than in the former class, but a balance must be struck between the local and general condition ; if there should be any disproportion on the one side it must be compensated by a relatively less grave condition on the other ; *i.e.*, if a considerable amount of local disease is present the constitutional impairment must be relatively slight, and *vice versa*.

In the far advanced class are placed many cases which may be neither of long duration nor of very extensive local disease. Constitutional symptoms of a severe type might place a case with comparatively little local disease in this class ; and conversely, a case of longstanding with widespread fibroid disease and evidence of past excavation would, without very marked constitutional impairment, also be rightly placed here.

It is needless to say that the hospital does not wish to receive cases which should be classed as far advanced or acute miliary.

The National Association at its recent meeting also suggested the use of certain definitions of the extent of disease in the lungs. These definitions, a part of Turban's scheme for a method of comparative statistics for pulmonary tuberculosis, were recommended for adoption at the International Conference on Tuberculosis a year ago. They are as follows :

CLASS I.—Slight lesion extending at most to the volume of one lobe or two half lobes.

CLASS II.—Slight lesion extending further than I., but at most to the volume of two lobes : or severe lesion extending at most to the volume of one lobe.

CLASS III.—All lesions which in extent of the parts affected exceed II.

By "slight lesion" we understand disseminated centres of disease which manifest themselves physically by slight dulness, by harsh, feeble or broncho-vesicular breathing and by râles.

By "severe lesion" we mean cases of consolidation and excavation, such as betray themselves by marked dulness, by tympanitic sounds, by very feeble broncho-vesicular, bronchial or amphoric breathing, and by râles of various kinds.

Purely pleuritic dulness, unless marked, is to be left out of account ; if it is serious, the pleurisy must be specially mentioned under the head of "tuberculous complications."

The volume of a single lobe is always regarded as equivalent to the volume of two half lobes, etc.

These broad definitions may prove of practical service to the practitioner in helping him to classify the lesion from the sanatorium point of view. It must not be inferred, however, that the Classes I., II. and III., correspond necessarily with the terms incipient, advanced, and far advanced. Indeed many cases with local lesion in Class I. would, on account of the nature of the constitutional symptoms, be classified as moderately advanced or possibly far advanced ; cases with local lesion in Class II. would generally be classed as moderately advanced, though sometimes far advanced ; while many cases with local lesion in Class III. might be classified as moderately advanced.

The following classification of lesions with modifying conditions based upon these definitions may be suggestive. (Apical lesions are understood in all cases where basal lesions are not specified.)

FAVORABLE.

Lesion.	General Condition.	Complications.	Fever.
Classes I. and II.	good	none	none, or with fever— max. 100.5°
Class III. (Small amount of excavation; expectoration slight.)	good	none	none
Classes I. and II.	good	slight—non-tu- berculous or slight laryngeal lesion	none

Dry pleurisy, or thickened pleura, or pleurisy with effusion, with mild symptoms and short period of fever.

DOUBTFUL.

Lesion.	General Condition.	Complications.	Fever.
Class III. (Excavation slight.)	good	none	with fever—max. 100.5°
Classes I. and II.	moderately im- paired	none	with fever—max. 101.5°
Classes I. and II.	moderately im- paired	slight—non-tu- berculous or laryngeal	with fever—max. 100.5°
Classes I. and II.—Basal	moderately im- paired	none	with or without slight fever

Pleurisy with effusion and continued fever.

UNFAVORABLE.

Lesion.	General Condition.	Complications.	Fever.
Classes I. and II.	impaired	none	fever exceeding 101.5°
Classes I. and II.	impaired	present	with or without fever
Class III. (Apical, with extensive excava- tion.)	impaired	none or present	with or without fever
Class III.—Basal	impaired	none or present	with or without fever

Chronic fibroid phthisis; miliary pleurisy, both sides; acute symptoms; general miliary disease, as indicated by vague, not localized physical signs, rapid pulse, rapid respiration and cyanosis.

Consideration of the local condition must not blind one to the many other factors which tend to make a case favorable or the reverse, and which are of such importance that in a majority of instances the prognosis is influenced by them rather than by the local condition. These are so numerous and varied that they can only be ascertained by careful enquiry and thorough examination. So many points must be considered that they cannot be didactically summarized to indicate what is favorable or unfavorable and at the same time allow the summary to be sufficiently elastic to include all variations of cases. However, some factors which may tend to make prognosis doubtful or unfavorable may be ascertained by the physician in taking the history, or on examination, as follows:

Family History.—Delicate parentage, which may or may not be the result of tuberculosis, especially maternal tuberculosis at birth.

Previous History.—Occupations which are confined and dusty, or which help to produce a dissipated life; dissipation, alcoholism, tendency to excesses of all kinds; delicate constitution, poor development, late maturity, frequent illnesses.

Present Condition.—Extremes of age—under 15 and over 50; the menopause; temperament—neurotic, emotional, melancholic; morale—carelessness, either wilful or ignorant; build—delicate, slender, very tall; nutrition—habitually underweight; chest formation—flat, pigeon chested, rachitic, etc.; Hippocratic fingers marked; poor peripheral circulation; marked cachexia.

Mode of Onset.—Development during menopause, pregnancy or lactation; imperfect recovery from unresolved lobar (?) or broncho-pneumonia (?), typhoid (?) or typho-pneumonia (?) or typho-malaria (?); following acute infectious diseases—measles, pneumonia, typhoid, chronic bronchitis, asthma, chronic dyspepsia, pronounced anemia.

Symptoms.—Severe cough—upwards of six months; large amount of expectoration—upwards of oz. 2; repeated severe hemoptysis; hoarseness; abdominal breathing due to lack of chest movement; marked dyspnea; persistently rapid pulse; swollen feet; slight cyanosis and hectic flush; long period of fever with or without chills and sweats; fever above 100.5°; night sweats; marked or rapid loss of weight; marked anemia; marked dyspepsia or diarrhea; prolonged or marked debility; marked nervousness, restlessness or sleeplessness; symptoms of complications.

Complications.—Non-tuberculous—chronic gastritis or enterocolitis; pronounced cardiac disease, valvular or muscular; marked arterio-sclerosis; nephritis; chronic cystitis; diabetes; old or

recent syphilis; emphysema; chronic bronchitis. Tuberculous—enlargement and tenderness of cervical lymph glands; intestinal tuberculosis; rectal abscess and fistula; genito-urinary tuberculosis; peritoneal, bone or joint tuberculosis; markedly thickened pleura; pleurisy with effusion; empyema; pneumothorax; pyo-pneumo-thorax; laryngeal tuberculosis: (a) Doubtful: superficial ulceration of the cords and ventricular bands, limited infiltration of inter-arytenoid space without ulceration, ulceration of inter-arytenoid space with or without slight infiltration. (b) Unfavorable: ulceration with swelling of arytenoids and ary-epiglottic folds, general ulceration with perichondritis, ulceration of epiglottis.

A few cases from the hospital records may serve to illustrate various points brought out in this paper.

(a) Two cases accepted as very good on the evidence of the examination form as filled out by physicians. In both cases the condition was verified by examination of the patient on arrival, and the cases were classified as incipient.

1. "M.B.—age 19; tailoress; family history slightly consumptive; onset: anemia; 6 lbs. loss in weight; cough for five weeks; expectoration for four weeks, slightly streaked, bacilli present, amount now oz. 4; slight dyspepsia; slight fever (100°); pulse 88. Local condition: right apex very slight dulness, slightly prolonged expiration and increased vocal fremitus."

The lesion here, confined to one apex, belongs to class 1. The modifying conditions are such as to bring the case into the favorable class described above.

2. "H. H. J.—age 22; coachman; onset: cough five months ago, expectoration six weeks ago, amount now oz. ½, slight hemoptysis two weeks; has had night sweats; fever for a few days, no rise in temperature now; 10 lbs. loss in weight; condition otherwise good. Local condition: rise in pitch percussion note right apex posteriorly; expiration prolonged below right clavicle, crepitations right submammary region. Reacted to .006 gm. tuberculin."

The lesion is again class 1, and conditions favorable.

(b) Two cases illustrating deliberate misrepresentation or careless examination by the practitioner.

1. A. J. Z.—age 34; nurse. Application form shows onset after typhoid four years ago with cough and hemorrhage; has had fever and night sweats; cough now troublesome; sputum oz. 8, with bacilli; temperature normal, pulse 84, digestion good. Local condition: right lung, negative; left lung: percussion note a little dull at apex, respiratory sounds impaired; apex beat normal. Physician considers patient incipient, and adds, "she is a hopeful case, and I am anxious to get her where the conditions will be favorable for her during the coming winter."

The patient was accepted as doubtful on the evidence of this

recommendation, was speedily admitted (this was before the pressure for admission was so great) and at examination on arrival proved to be a far advanced case with bad prognosis. The local condition was: right lung, apex, early infiltration; lower lobe, moderate infiltration at the apex and along fissure, softening at angle of scapula; left lung, marked infiltration of upper lobe; enormous excavation of the lower lobe in the axilla; heart markedly displaced to the left. The patient was also cachectic, had some temperature and marked dyspnea.

2. M. C.—age 37, housekeeper. Application form showed good previous history; onset 3 months ago; cough and expectoration one month, bacilli present, expectoration now oz. 3; loss in weight 4 lbs.; evening temperature 99° ; pulse 100; laryngeal tuberculosis; *chest normal*; disease stationary; considered incipient.

This patient was admitted as doubtful on account of laryngeal condition and amount of expectoration, and came into the hospital one month later, when she gave a history of cough and expectoration for 10 months, three hemorrhages during the past month; her present condition showed 14 lbs. loss in weight, a temperature of 100.5° maximum, and profuse night sweats. The local condition on examination proved to be: right lung, apex, early infiltration in front, and behind; lower apex ditto; left lung, severe lesion; consolidation and infiltration to the fifth rib in front; extensive excavation; infiltration throughout behind. Larynx: ulceration of both cords, of both false cords, and base of epiglottis. The case is obviously far advanced and of bad prognosis.

C. One case refused admission.

1. J. P. C.—age 18, dry goods clerk. Pneumonia the winter of '04, pleurisy '05, good recovery; onset with cold 2 months ago; expectoration 6 weeks ago; night sweats. Present condition: coughs much, sputum oz. 5, bacilli; temperature 102° to 103° ; respirations 32, pulse 108; night sweats; poor digestion with frequent vomiting. Local condition; right lung normal; left lung, percussion note dull; respiratory sounds abnormal, moist râles both in front and behind. Physician notes: "Left lung badly affected." Tendency of case upwards—considered incipient with promise of arrest.

The case was refused as obviously unfit for sanatorium treatment, and the physician wrote a protest to the Toronto office as follows: "I was somewhat surprised when Mrs. C. showed me your letter to her *re* her son. J. P. C. has been sick only two months, and if the sanatorium is good for any case I think it ought to be good for him. I never saw any case that was benefited by Muskoka treatment yet. I suppose the atmosphere . . . ought to be beneficial, and it is too bad that this poor boy, who has been the mainstay of his family, should not have a chance for

his life. I hope you and the Medical Superintendent will reconsider the decision and decide to admit him."

Such protests as this are by no means uncommon. But while some doubtful cases no doubt deserve a trial, the very doubtful must be rejected in favor of others who show promise of receiving material benefit. Some advanced cases give promise of arrest for an indefinite period, while incipients with acute symptoms are often quite unfavorable. Acute cases are best kept at home, at least until the acute symptoms have subsided. One of Dr. Gee's aphorisms is: "One may be quite sure that in any case of phthisis the disease is much more extensive than the physical signs would seem to indicate."

Tuberculosis is no doubt an undramatic and uninteresting subject, but it makes up a large proportion of the human ill which every physician has to fight. There seems to be a good deal of apathy in the profession regarding the recognition of the disease in an early stage. After the most careful examination of a suspected case the physician is often still in doubt whether it is tuberculosis or not; but is the case in which tuberculosis may be the obscure cause always carefully enough investigated with that disease borne in mind? Our records show that with a little more attention to the history, or with less willingness on the part of the physician to deride the possibility of tuberculosis when symptoms point definitely towards that diagnosis, many cases might have been placed under treatment at a much earlier date. When rational signs exist it is not necessary to wait for the demonstration of bacilli before making a diagnosis. Rather send the patient to a sanatorium at once, where a thorough attempt will be made to prove him non-tuberculous and a short training can only be beneficial. The man who diagnoses tuberculosis with the clothes on and without a thermometer will find nothing in the above definitions and classifications. He will continue to try to foist hopeless cases on sanatoria, and to have applications refused. He will be eternally skeptical of sanatorium results. The only hope for him is that the laity, who are taking now such intelligent and energetic interest in the world scourge of tuberculosis, will shame him out of his apathy. They begin already to recognize the doctor who never examined sputum, who didn't use his stethoscope, who failed to take temperatures, who made light of striking symptoms—who, in a word, *didn't find out in time*—and to be indignant with the doctor who sends a dying man on a needless journey, costly and painful, to some health resort or sanatorium.

A SUMMARY OF TWO HUNDRED AND SEVENTY LAPAROTOMIES WITH REMARKS ON THE TECHNIQUE ADOPTED.*

BY T. K. HOLMES, M.D., CHATHAM.

The various questions in surgery are so fully considered in text books and magazines by writers of great skill and experience, that one may feel justified in believing that a short paper based on personal experience in the technique and management of a number of laparotomies, might prove of interest to some whom I have the privilege of addressing to-day. The series of cases presented, embraces two hundred and seventy in number and may be classified as follows :

Ailments.	Operations.	Deaths.
Appendicectomies	111	2
Suspension of uterus	38	0
Hermotomies	22	0
Ovariectomies	30	1
Hysterectomies	14	1
Extrauterine Pregnancies	7	0
Suppurating tumors of abdomen	4	0
Suppurating ovary	1	0
Exploratory operations	10	0
Myomectomies	5	1
Pelvic abscess	9	0
Pyosalpinx	7	1
Tubercular peritonitis	4	0
Procedentia uteri	3	0
Gall stones	4	0
Nephrectomy (abdominal)	1	0

comprising in all 270 operations with six deaths or a mortality of 2.22 per cent. During the time embraced in this series there were three cases of appendicitis, one myomatous uterus and two cancerous uteri upon which I declined to operate, considering them beyond hope of success. The three cases of appendicitis were moribund when I first saw them. The two cases of cancer of the uterus were too far advanced to operate upon, and the case of myoma of the uterus was declined an account of the extreme

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anemia from hemorrhage. This patient was taken to a neighboring city, but died during the operation. Analyzing the six deaths in this series the following may be stated:

Both cases of appendicitis were interval operations and were simple easy cases. The first was a young woman who had suffered many slight attacks extending over several years and had pain and tenderness during the intervals. To relieve these and to enable her to pursue her work she had taken antifebrine almost daily for many months. She took the anesthetic badly and her color and circulation were bad from the time of the operation until she died three days after.

The other appendix case was in a young man, who had also tubercular peritonitis and was in an unfavorable condition. He had uncontrollable hiccough and lived a week after the operation.

The fatal hysterectomy was a case of myoma of the uterus in a girl twenty-six years old. She, too, had taken hundreds of doses of antifebrine for pain, and although the operation was an easy one she did badly and lived only three days. I have decided not to operate on any patient who has used this drug long, and I have no doubt that the fatal result in those two cases was due to the condition brought about by the long use of this drug.

The fatal case of myomectomy was a woman four months pregnant. She did well for a month, when she miscarried; but did well after this for another month, when the bowels became obstructed and she sank rapidly. I began anesthesia with the view of opening the abdomen and, if possible, relieving the obstruction, but her condition became so alarming that the anesthetic could not be continued.

The fatal ovariectomy was in a woman fifty-two years old. She did well for four days, when uncontrollable vomiting occurred and continued until her death, five days later. The autopsy revealed a band of adhesion encircling a loop of small intestine and completely closing the gut. This could have been easily divided, and the patient's life probably saved, but other symptoms led me to think there was paresis of the bowels that would be overcome by other means.

The death of the patient with pyosalpinx was due to incessant vomiting from paresis of the intestines.

Except in emergency cases, the patient is prepared for operation by securing a healthy condition of the digestive apparatus and a normal condition of the excretions, particular attention being paid to the stools and the urine. Thirty-six hours before the operation the bowels are freely moved by a brisk purgative, usually three compound cathartic pills, given at bedtime. The evening before the field of operation is shaved and thoroughly cleansed with soap and water, followed by a saturated solution of permanganate of potash, and this by a solution of oxalic acid. A

gauze compress, wrung out of a bichloride solution 1 to 2,000, is then applied and allowed to remain until next morning after the patient is anesthetized, when the skin is again washed with soap and water followed by alcohol, ether or bichloride solution.

All parts of the body are warmly clad. All assistants have their hands and arms sterilized, wear sterilized suits and caps, and those handling instruments or sponges wear gloves. Sponges are passed to the operator or assistant by means of sterile forceps. Those more intimately concerned in the operation wear gauze masks to prevent infection from the mouth. No infected case is operated on in the operating room for clean cases.

A chief aim has been to prevent shock, and with this view the maintenance of bodily heat by having the operating room well warmed and the surface of the body well clad, has been the uniform rule. In addition to this, rapidity in operating, the control of hemorrhage, the protection of the intestines, when exposed, by towels wrung out of hot salt solution, and the avoidance of handling the viscera, are of the utmost importance.

In cases in which the transfusion of salt solution is likely to be required, this is done before symptoms of shock appear, often as soon as the patient is anesthetized. Adrenalin is useful in raising the blood pressure and so overcoming shock. Lavage of the stomach before the patient regains consciousness, prevents or lessens vomiting. Drainage is not used except in infected cases.

Embraced in this series of cases are 119 consecutive laparotomies without mortality.

While many cases presented no difficulty in the operation some were of an extremely grave character. One was a ruptured appendical abscess into the general peritoneal cavity in a woman four months pregnant. The appendix was gangrenous. Two of the abdominal hysterectomies were in women with myomatous uteri and pregnant, respectively two months and four months. Five of the extra uterine pregnancies had ruptured before operation, and hemorrhage into the abdominal cavity had been very profuse. In one of the five both tubes were impregnated.

In one hysterectomy for myomatous uterus adhesions were so troublesome that a part of the small intestine was accidentally so badly injured that it was necessary to resect the torn part and use a Murphy's button. Recovery was satisfactory and the button was passed on the eleventh day.

THE MEDICAL TREATMENT OF EXOPHTHALMIC GOITRE.*

By R. D. RUDOLF, M.D.

Perhaps it would be better to call this communication notes on the non-surgical treatment of Graves' Disease. The reason for this distinction is the fact, which dawns the brighter the more one sees and studies the course of these cases, that many (some say the majority) of them tend to improve and even recover completely under the most varied forms of treatment. It might even be correct to say that the disease tends to recovery *in spite of* some treatments!

An immense variety of treatments have been tried and advocated in this condition, each one in its turn to be followed by a list of cures, and then of others which have not so improved. It is often said that whenever one finds a great number of treatments recommended for any disease, one may conclude that none of them are very satisfactory. This is very true, yet it by no means follows that that disease is therefore hopeless, or unlikely to be recovered from. What disease calls for a greater variety of treatments than a cold in the head, and yet the prognosis is good, and we all recover from it under the influence of or in spite of the treatment of almost every friend we meet.

The first point then that I would advance is that there exists in Graves' Disease a strong natural tendency towards recovery. Hence in order to give full credit to that most powerful ally of ours, the *vis medicatrix naturæ* emphasis is here laid on this natural drift of the condition towards cure. Dr. Norris (Hare's "System of Practical Therapeutics," Vol. 2, p. 850) puts this idea in other words when he says that "a placebo often gives good results, and many good results from various drugs no doubt are thus explained."

Bristowe states that the disease is not usually dangerous to life, and when death occurs it is usually due to some intercurrent affection. Fagge states also that most cases eventually recover and that he knew of few deaths. G. R. Murray (*Lancet*, Dec. 13th, 1902) found that, out of 40 consecutive cases of his own, 31 progressed favorably and 7 died. W. M. Ord and Hector Mackenzie (C. Allbutt's "System of Medicine," Vol. 4, p. 502) came to the conclusion that about 25 per cent. of all well-marked cases ended in death; that about 50 per cent. attain more or less complete re-

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covery; and that the balance of 25 per cent. remain *in statu quo* or only slightly improve.

The general opinion then, as judged from literature, is that few cases die directly from the disease, but that many do so from intercurrent affections; and that, while the cases are hard to keep track of, about fifty per cent., more or less, recover eventually.

The essential nature of the disease is uncertain, but the favorite theory is that most of the symptoms are due to an excess of thyroid secretion circulating in the blood; in other words, the patient is suffering from thyroid poisoning, and is in fact in a condition the very opposite of Myxedema. She is intensely nervous and emotional, and the least physical, mental or emotional excitement sends her already fast pulse up, and produces flushing and perspiration.

It is most essential that such a case should be put at rest; perhaps not in bed, although this is often best at first. She should be kept mentally, physically and emotionally quiet.

The state of the general health should be raised as high as possible and anemia, constipation and any other abnormal condition should be carefully attended to.

The diet should be plain and good and all stimulants had better be omitted.

Beyond these general methods of raising the tone of the patients, our endeavors may be classed under two headings:

1. To prevent the excessive production of thyroid secretion; or to neutralize the poisonous amount of it that is circulating in the blood.

2. To treat the symptoms as they arise.

In the first class come operative measures on the thyroid gland, such as removal of part of the over-functionating organ. Less radical measures than operative ones have for long been in vogue, with the object of checking the over-activity of the gland, among which may be mentioned pressure to the organ and the application of cold, either in the form of ice or by means of Leiter's tubes.

The employment of electricity, either as galvanic or faradic current, probably may be classed here.

There is no certain way of neutralizing the excessive thyroid secretion in the blood. Possibly the use of thymus gland extract might be mentioned as one, as this material has in many ways the opposite action to the thyroid secretion, but the results of its use have not been encouraging. The administration of thyroid gland was suggested some years ago by Professor Jones. Theoretically it seemed quite wrong to give more of what was already in excess in the blood—much like giving alcohol to cure drunkenness—and yet good results occasionally followed, although oftener the reverse. Later, Professor Jones found that what he had really been giving was the thymus gland. It seems that the butchers had been asked

to supply portions of the large gland in the neck of the calf, and, as under one year of age the thymus gland is as large as the thyroid, the mistake arose. A treatment which has been much tried in Germany and occasionally elsewhere is the administration of the blood or blood serum or even the milk of animals from which the thyroid gland has been removed some time before. The idea is that the use of the thyroid secretion in the blood of the normal individual is to neutralize certain toxins which have been produced elsewhere. In thyrosectomised animals these toxins have accumulated—being unneutralised—and when the blood of such is administered to a person suffering from Graves' Disease, the excess of toxins, thus introduced, neutralises the superabundant thyroid secretions and thus relieves the thyroid poisoning. There seems to be a great margin for error here, and the results have not been encouraging, although, as usual, a certain number of cures are reported. G. R. Murray tried the treatment in two cases last year with negative results.

One theory of the nature of the disease is that in it the parathyroid glands are not acting properly—not controlling the secretion of the thyroid—and that therefore this gland is over-functionating. W. G. MacCallum, of Johns Hopkins University, suggested, I believe, that Graves' Disease might be due to such a cause, and that therefore the giving of an extract of parathyroids might be beneficial. He had tried it in one case with great benefit for a time, but the patient unfortunately died of an intercurrent tuberculosis.

Recently Dr. J. J. Walsh, of New York (*American Medicine*, May 25, 1905), reports some cases in which he used this treatment without any benefit. Seeing then that we are so powerless, as yet, to check the excessive secretion of the thyroid gland or to neutralise the abnormal amount of the secretion in the blood, it only remains for us in most cases to treat the symptoms as they arise. And by so doing we do not merely mark time until such time as the natural return to health is likely to occur. By placing the patient at rest, soothing the nervousness, etc., we undoubtedly hastened this return to health, and even may, in some cases, so alter the balance as to cause a return to health when otherwise it might not occur, and thus may make the difference between life and death.

An immense number of medicinal remedies have been used from time to time, and it would serve no useful purpose for me to enumerate them here.

Of those that I have personal experience of the most generally useful have been Belladonna and the bromides. Under moderate doses of these the patients usually quickly become less nervous. Ramsay (*Glasgow Medical Journal*, 1891), after a very exhaustive

study of the subject, came to the conclusion that Belladonna is the most valuable drug that we can employ.

Theoretically Digitalis and Ergot should do good by toning up the blood vessels and slowing the rapid heart, but though some good results have been reported, on the whole they are disappointing, and Digitalis often seems to do harm and is peculiarly apt here to disturb the stomach. Strophanthus is not so open to this objection.

The employment of preparations of iron has given rise to much divergence of opinion, some thinking that it is most valuable, while others condemn its use. When anamia exists, as is often the case, it seems only rational to employ the drug, not for the treatment of the symptoms of Graves' Disease, but in order to get the blood into a better condition.

Arsenic and phosphorus are often used for their tonic effects, and it is interesting to note that an Italian worker, Dr. Luigi Macaggi, found by experiments on dogs that both of these drugs lessen the secretion of the thyroid gland through changes produced in the epithelium. Be this as it may, it is quite certain that they have no powerful action in this way when used in medicinal doses.

To recapitulate,—

The non-surgical treatment of Exophthalmic Goitre may be summarised as follows:

1. First, and most important, the patient should be placed in a state of physical, mental and emotional rest. If the case be at all acute, she had better be kept entirely recumbent, as the upright position will greatly hasten the heart's action.

As a rule these cases do better away from home, either in a hospital or sanitarium. In some cases the strict regime of the Weir Mitchell is advisable.

2. By careful dieting and in every way possible the general health should be raised; and anemia, constipation and every other deviation from normal must be attended to. As has already been mentioned, very few cases of Graves' Disease die from the disease itself, death when it occurs being due to some intercurrent affection—hence the special need of looking after the general health.

The climate at a moderate elevation seems to be specially beneficial, and hence such a location should be chosen whenever possible. Nothnagel considers "a sojourn in a place of moderate elevation as most important."

3. Various local applications may be employed, such as pressure to the thyroid gland, or a mild galvanic or faradic current; but probably the most valuable local treatment is application of cold to the thyroid gland, or to the precordium, either in the form of an ice-bag, or as Leiter's tubes. Such use of cold often greatly controls the rapid action of the heart.

4. As regards medicinal remedies, these will vary greatly with the practitioner. Nearly every man has some remedy which he specially relies on; which fact proves, as has been said, what a secondary place all drugs take in the treatment of this condition.

Personally, I like to give a mixture of Belladonna (10 to 15 minims of the tincture, thrice daily) combined with strontium bromide; and feel convinced that the patients soon feel very much more comfortable as a result of such remedies.

5. Any special symptoms, such as threatened heart-failure, urgent diarrhea, etc., must be met with appropriate remedies.

Under such hygienic and medicinal treatment most patients will slowly improve, and some will completely recover. But the majority will retain some traces of the disease, such as cardiac irritability, general nervous instability and some exophthalmos.

The disease is a prolonged one, and the patient requires much patience and all the encouragement that the attendant can give; the latter should resort to mental therapeutics as much as possible.

Lastly, a few cases will get worse, and in a few of them surgical aid seems to be indicated; but this must not be lightly undertaken, as the immediate danger is considerable, and the results are not by any means always satisfactory. Kocher has reported many cases now, in which operation has produced very brilliant results; but Ehrlich is much less enthusiastic, and mentions eight cases in which partial extirpation of the thyroid had been done. Several of them were not relieved, or suffered a recurrence of the old symptoms after a temporary relief. Ord and Mackenzie (Clifford Allbutt's "System of Medicine," Vol. 4, p. 502), reviewing the cases operated upon up to a few years ago, conclude that "If we compare the results of operation with those of other methods of treatment, we find no striking difference except in the death-rate of 12 per cent. due to the operation."

The several cases in which I have seen the most marked benefit from operation have been ones in which a tumor has been present in the thyroid—*e.g.*, a fibroid—and Graves' Disease has resulted. Here the tumor seems to have acted as an irritant, causing an over-activity of the gland, much as a foreign body in the eye will produce an excessive secretion of tears, and the removal of this source of irritation by operation has been followed by complete relief of the symptoms.

A REPORT OF CASES OF ELECTRICAL BURNS FROM "LIVE WIRES."*

By H. H. OLDRIGHT, M.B., ST. CATHERINES ONT.

Mr. President, Ladies and Gentlemen,—My attention was first directed to the study of burns by "live wires" from having been called to attend a case in the vicinity of St. Catharines, Ont., on July 1st, 1902.

On arriving, I found that one man had been killed outright by the electric current, and although the employees had made every effort to resuscitate him by keeping up artificial respiration for an hour's time.

I will give a report of the *post-mortem* examination at the end of this paper; also, I will append the medical references which I have found in reading what literature I could find on the subject in general.

On the subject of shock, from high voltage currents causing death, it will suffice here to say, that it seems to occur, either from paralysis of the respiratory centre or for a peculiar condition of tonic fibrillary contraction of the heart muscle, analogous to that described by physiologists, a condition antecedent actual death.

If a strong current passes in a direct path from the hand or the head to the foot through the heart, we may expect to have this planic state of the heart in any given case.

If, on the contrary, the current passes through the cerebro-spinal centres (*e.g.*, from hand to hand contact with a "live wire") we may then expect to have a condition of paralysis or paresis of these centres.

In either case the only treatment suggested by the authorities is to use artificial respiration, as in the case of one apparently drowned, using at the same time the Laborde method by traction on the tongue carried out rhythmically sixteen times to the minute, the ordinary respiratory rate.

As to the lesions caused by the passage of the electrical current from "live wires" I might best illustrate them from a report of two cases under the care of Dr. J. M. Elder, Surgeon to the Montreal General Hospital and lecturer on Applied Anatomy at McGill University.

He first notes the observations of Dr. Sharpe, of St. Louis, Mo.,

*Read at annual meeting of Ontario Medical Asso., Toronto, June, 1905.

published in the "Year Book" for 1899, and taken from the *Philadelphia Medical Journal*, Jan. 29th, 1898.

He, Dr. Elder, remarks, that from the surgical standpoint there had been little written up to the date of Dr. Sharpe's paper, and till his own was read Nov. 3rd, 1899.

Now, in cases of burns by electricity the fluid or current has an effect not only on the epithelial layers, but during its passage through the underlying structures it causes a degeneration of the tissues varying in extent and degree. This is proportionate to the strength of the current and also to the length of the period of contact.

Now, I may say shortly, that to us, as medical men, voltage or the number of volts means the pressure or tension of the electrical fluid in any given wire. Amperage or so many amperes means the rapidity of flow of the current. An ohm is the measure of resistance. This is as it appears to me after having made inquiries from practical electrical engineers.

Now, in the case of the patient whom I attended at the same accident and who survived, the wire or cable with which he came in contact was under a tension of 22,000 volts. Of course he did not receive the whole force of the current, but, as his arm or wet sleeve came in contact with the cable he received a certain amount of it. It jumped to his right arm burning through the cutis vera, or whole thickness of the skin, over an area about 4 by 8 or 9 inches. There were also deep burns on the forearm and a slight one on the abdomen. The sole of the right foot was blistered across the bases of the toes. The base of the great toe and underside of the toe itself was burned down to the bone over an area about $\frac{3}{4}$ by $1\frac{1}{2}$ inches. The joint at the ball of the great toe was tender (and still is at times), as if the current in passing through the cartilages had caused some lesion.

And now let me say that Dr. Elder found in his cases, which required amputation, that the muscles degenerated and sloughed not only at the line of demarcation in the skin, but even up to their insertions near the head of the bone (in one case the humerus).

These burns have a dry ashy-grey charred appearance, and inflammatory reaction around them comes on in the course of two or three days, with much swelling.

The best treatment, I think, is to use dry antiseptic dressing in the beginning, and afterwards wet dressing as required to absorb discharges from the suppurating areas.

There is a greater tendency to hemorrhage while the sloughs are separating, and this should always be looked after, as Dr. Elder emphasizes.

Dr. J. Alex. Hutchison, of Montreal, skin grafted some cases for Dr. Elder where the stumps were left open at the time of amputation and allowed to granulate.

In my own case quoted here, and in a subsequent case, I found that the healing was slow, owing no doubt to the depth of the burn and lowered vitality of the surrounding tissues.

By slow, I mean, in comparison with the healing of burns from other causes, such as those from caustics, fire or steam, and I think it may be conceded that this is due to the more penetrating action of the electric fluid.

As in the case of lightening it may pass through the tissues in a straight line between the point of entrance in the body and point of exit.

In another way these burns resemble those from the X rays, but the latter are more on the surface and do not seem as a rule to go deeper than the skin. They differ also in appearance. I may say here, before concluding the history of this patient's case, that both the burns on the arm and toe took two months and more in healing, even with removal of sloughs by surgical means and skin grafting. In the case of the toe I used the Thierch grafting process after waiting a month, and then scraping down to the bone. The graft took well, but as the patient could not afford to rest longer than six weeks it broke down again and still does so to a slight extent.

Six months should be allowed with elevation according to Mr. Watson Cheyne, when speaking of grafts on the lower extremity, I have here the original report of the *post-mortem* examination on the other man who met his death while attempting to rescue his fellow workman. At the *post-mortem* held about seventeen hours after death, under order of the Coroner, Dr. Goodman, of St. Catharines, the most noticeable thing was the intense engorgement of the lungs on both sides. They were more like a pneumonic lung or soft liver in appearance. The right heart contained fluid blood. The other organs were, some anemic, some slightly congested. There was no external mark or lesion on the skin.

Dr. Abigail M. Cleaves reports cases where there was an almost identical appearance. (Ref. "Handbook of Medical Sciences," last edition, edited by Dr. Buck, of New York.) I think, therefore, that in this case the shock caused a paralysis or paresis of the heart muscle or tonic fibrillary contraction of the same, and as to the lung engorgement it may have been caused by the respiratory efforts, for he was seen to gasp once or twice after being carried out of the power house.

In conclusion. As we are now living in an age when electricity is every day becoming more used in the commercial and industrial world. I need not add more than to say that I hope that this essay may add some light to the medical and surgical interest on this subject. As we see it written on the shield of the

college under the lamp, so may our motto be, if I may so translate it: "It shines clear to give a little light."

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Selected Article.

THE DIAGNOSIS OF GALLSTONE DISEASE.—BASED UPON THE CLINICAL HISTORIES OF 1,100 OPERATED CASES.

BY DRs. WILLIAM J. AND CHARLES H. MAYO.

Surgeons to St. Mary's Hospital, Rochester, Minn.

In reviewing the mortality of 1,100 operations for gallstone disease we have been impressed with the very fortunate outcome where the gallstones were in the gallbladder and before there were complications. In the 1,100 cases there were 54 deaths, or an average mortality of 5 per cent., counting as a death every operated case dying in the hospital without regard to cause of death or length of time thereafter. Taking them as they come, the death rate in 897 cases where the disease was confined to the gallbladder and for benign conditions was 3 per cent. Included in this group are acute and chronic affections, local peritonitis, complicating intestinal-fistula; etc. In 456 cases of simple gallstone disease the mortality was less than one-half of 1 per cent., and fully as good as the interval operation for appendicitis in individuals of the same age and general condition, for it must be borne in mind that those most liable to this disease are at an age in which degenerations of vital organs are often present. The difference between the one-half of 1 per cent. mortality in so large a group of cases, and 3 per cent. by adding to it a nearly equal number in which there were changes due to obstruction and infections, shows the enhanced danger in the latter condition. When we come to the group of common duct operations, amounting to 14.6 per cent. of the whole (one case in seven), we find a startling increase in mortality. In 149 operations for common duct stones the mortality was 10 per cent., however only $5\frac{1}{2}$ per cent. within three weeks, $3\frac{1}{2}$ per cent. later from anemia and general debility, etc. Still more impressive is the fact that 43 cases, or 4 per cent., had developed malignant diseases, and the operative mortality was 21 per cent. In practically all of these cancers gallstone irritation could be shown to be the cause of the malignancy. This at once brings up the vital question: Is it right and just that so large a percentage of patients should be subjected to the dangers consequent upon delayed

operation, to say nothing of the prolonged suffering and invalidism entailed? Can the diagnosis be made while the conditions are favorable, the mortality so low as to be largely accidental and the cure almost certain?

We have no hesitation in saying that, as a rule, it can. There are, of course, some exceptional cases which cannot be correctly diagnosticated, but the percentage of complications can be reduced to a minimum. Even a superficial inquiry into the histories of the common duct series will at once demonstrate the fact that in the vast majority the diagnosis could have been arrived at in the early stages and a safe operation performed.

During the initial period of any special field of surgery the differentiation of the surgical from the medical cases is uncertain, difficult, and often impossible. Perhaps the greatest obstacle to be overcome is the pseudo-knowledge and prejudice handed down to us by a literature founded upon theory and misconception. Once clear the atmosphere of this fog and the diagnosis begins to be easy, and is capable of intelligent solution. The reason for the symptoms becomes clear, and, like every truth in nature, is so simple that the wonder of it is that it was not explained before. One can almost mourn for our old favorites, "bilious" and "hepatic" fever, "gastralgia" and "stomach cramps," and a host of similar delusions based upon the "feelings" of the patient, while the true secret lay buried under the term gallstones, an "innocent post-mortem finding" until resurrected by the surgeon.

There are a few anatomical facts which will explain most of the symptomatology of gallstone disease. The gallbladder is an *offshoot of the biliary apparatus, and seems not at all essential for health or comfort*. It is about three inches in length, and holds an ounce and one-half of bile. The base of the gallbladder is slightly dilated, and forms a little pouch by the reduplication of the mucous membrane (the pelvis). The cystic duct does not leave from the lowest part, but at a point on the inner wall slightly elevated above the neck, and is about an inch in length. The common duct is slightly over three inches long, of which somewhat over an inch lies exposed in the right margin of the gastrohepatic ligament, the remainder lying behind the second portion of the duodenum and between it and the pancreas. It is the latter portion which is so intimately associated with the etiology of the pancreatitis from cholangitic affections which extend from the hepatic to the pancreatic ducts.

The blood supply of the gallbladder is through the cystic artery usually from the hepatic, but sometimes from the superior pancreatico-duodenal, being then liable to accidental traumatism during common duct operations, leading to the belief that the injury is to the hepatic artery, a very different matter. In the same way a large vein occasionally crosses the common duct, and

when injured is often supposed to be the portal vein. The gallbladder has no lymphatic glands and few lymph channels. There is one gland at the junction of the gallbladder and cystic duct, another at the cystic duct into the common duct, and a small number closely associated with the common duct. Murphy has especially called attention to the influence of this peculiar lymphatic drainage on the systemic effects of biliary infections. The nerve supply is most interesting. Lennander showed that the abdominal viscera had no sensation, but that the parietal peritoneum was exquisitely sensitive. There is one exception to this rule; Jonas has pointed out the branches which pass from the four lower dorsal and two upper lumbar nerves along the diaphragm. The terminal filaments pass to the common and cystic ducts and neck of the gallbladder, accounting for the deep median line pain of the colic and the attendant spasm of the diaphragm.

Gallstones are the result of cholecystitis. The bacteria probably reach the gallbladder through the bile current (Lartigau) rather than by an ascending infection from the duodenum by way of the common duct. The portal radicals constantly carry organisms to the liver, and those not directly destroyed are excreted with the bile. The majority of people subject to gallstones have had mild attacks of cholecystitis at various times before the formation of stones, as shown by Musser. This observation we have been able to confirm in a large series of cases.

First stage.—The diagnosis of gallstone disease is based on the colic. The patient is seized with a severe cramping pain in the midline, just beneath the ensiform cartilage, the pain radiates usually to the right, but occasionally to the left. It may pass through to the back or up through the sternum. The typical colic lasts from a few minutes to several hours, and is relieved suddenly by nausea and vomiting or a feeling of movement of gas in the bowels, unless cut short by anodynes. There is no quickening of the pulse nor elevation of the temperature. Why? Because the bladder has few lymphatic channels and no glands. The distensibility of the gallbladder relieves tension, so that the attack is over before absorption can take place. The patient, once relieved, feels quite well, eats and digests, and beyond a little rigidity of the right upper rectus muscle has no physical evidence of disease. We may differentiate from appendiceal colic by the fact that the pain is above the umbilicus and radiates upward. Appendicular colic may cause nausea and the pain may centre at the umbilicus on account of its nerve supply being the same as the mesentery of the small intestine. Ordinarily there will, in the latter instance, be an early history of appendicitis, in which the patient will have been confined to bed for several days, and there will usually be found some rigidity of the right lower rectus. The most confusing cases are those in which the appendix lies in the pelvis, but the

pain then radiates downward and often to the left or all over the lower abdomen.

Right renal colic can be differentiated by the pain passing through the loin and being most intense behind and radiating downward to the penis, testicle or ovarian region, with a history of some urinary disturbance. The tenderness to pressure is greatest just below the twelfth rib behind.

The *second stage* of gallstone disease means an obstruction at the pelvis of the gallbladder. The attack may begin as a typical colic, but instead of passing off quickly it is replaced by a tenderness in this region, and a more or less definite tumor of the gallbladder can often be felt. The pulse may quicken a few beats and the temperature rise to 101.5° F. Seldom more and usually less, even with pus present; and why? Because of the lack of lymphatic supply. The only gland available lies beyond the stone. This group must be differentiated from the ulcer of the duodenum with chronic protected perforation, by the history of gastric disturbance, and of dieting to relieve the distress, which so often attends upon ulcer. With cystic impaction the appetite remains good. The former disease is more frequent in males, the latter in females.

The *third stage* comes from the contraction of the distended gallbladder with slow absorption of the fluids. This is often attended with peritonitis, and now, for the first time, we may have a slight, quickly receding jaundice due to interference with common duct drainage from the plastic peritoneal deposits. The case is now typically one of chronic stomach trouble, dyspepsia, etc. There may be recurring attacks of regional peritonitis, but no more distinct colics. Adhesions to the pylorus may interfere with gastric motility, resulting in dilatation of the stomach, etc. This phase of the disease may be differentiated from gastric ulcer by the early history of colic and by the lack of direct connection between food and distress, etc. Occasionally we may have an acute perforation of the gallbladder into the free peritoneal cavity. More often a slow process of ulceration into the colon occurs and temporarily occasions a mucous colitis, or into the duodenum or stomach, causing, perhaps, acute but temporary pyloric obstruction.

Fourth stage.—The stone may pass into the cystic duct and give rise to sudden attacks of fever (temperature 103 or 104° , with chills and quick pulse), lasting a few hours and recurring at irregular intervals of hours or days. This is because the duct is not easily dilated, tension is therefore high, and a plentiful supply of lymphatics permits of rapid absorption. The pain is boring and deep-seated and may last for a number of hours or several days continuously as the stone advances. There is often temporary jaundice. The acuteness of the symptoms varies greatly, depending on the distensibility of the gallbladder and its ability to relieve back

pressure and the dilatability of the duct. This stage is the least characteristic of any.

Fifth stage.—The stone passes into the common duct. The symptoms of stone in the common duct depend upon two factors, infection and jaundice. In the acute stage both are present in a varying degree. As a rule the temperature assumes a characteristic malarial curve, chilly sensations and rigors with sudden sharp rise in temperature, lasting a few hours, perhaps, as high as 107, usually 103 to 105°, showing the influence of free lymphatic absorption. Jaundice during the acute stage is present in a varying degree, and with each exacerbation of infection there is a slight increase in the icterus, followed by diminution, changing perhaps once or more in twenty-four hours. It does not follow that subsidence of reaction or clearing up of jaundice means that the stone has passed into the duodenum. In about one-quarter of the cases there is a period of quiescence which may last weeks or months, the only symptoms complained of being gastric disturbance. There is also some loss of weight. The interval is the safe time to operate, and the death rate at this period is probably not above 2 per cent.

Sooner or later there develop changes in the walls of the common and hepatic ducts, and not infrequently in the pancreas. The infection becomes more active, the jaundice increases and there is a more rapid loss of flesh and a progressive anemia. The safe time has passed, and the mortality is from 10 per cent. to 30 per cent. in the last resort operation.

In common duct stone there is seldom a tumor, as pointed out by Courvoisier, although we have seen a palpable gallbladder due to a secondary stone lodged in the cystic duct, causing a tumor of the gallbladder by preventing the escape of the secretions. As a rule, in all duct cases, both cystic and common, there is an unconscious resistance to deep pressure over the upper right rectus muscle during inspiration.

Dividing the pathological condition into stages is merely for the purpose of calling attention to the most common symptoms and the reasons therefore, but is purely artificial.

This brings us to a consideration of jaundice. If it can be said that gallstones have a normal habitat it is in the gallbladder, and therefore entirely apart from the bile current. Jaundice has no part in the diagnosis of gallbladder stone, and when present means a complication arising in one of several different ways:

First, stones in the gallbladder may give rise to cholecystitis, the infection travels to the common duct and produces a cholangitis with jaundice.

Second, a local peritonitis is established and the plastic deposit in the fissure of the liver compresses the common duct and causes jaundice.

Third, a stone impacted in the cystic duct may compress the common duct.

Fourth, the cholangitic infection may extend into the pancreatic ducts, causing chronic pancreatitis and jaundice.

Jaundice from malignant disease has usually the early history of gallstones, and there is apt to have been a prolonged period of quiescence. The icterus is noticed accidentally, as while shaving, is not accompanied by pain, it steadily increases and does not vary day by day in the manner so characteristic of common duct stones. A nodular tumor can usually be felt in malignant disease. Jaundice from hypertrophic cirrhosis of the liver is accompanied by painful attacks, and the great size of the liver is easily demonstrated. Cirrhosis of the liver may produce jaundice, but the alcoholic history and enlarged spleen and ascites, so often present, permits differentiation.

Catarrhal jaundice, so common in young people, has nothing in the examination or history to suggest biliary calculus.

The urine should be carefully examined, although there is nothing characteristic about it beyond the possibility of the presence of bile. Immediately following the attack, examination of the feces may disclose calculi, but this does not often happen. In our experience it is nearly as common for stones (especially large ones) to ulcerate into the duodenum, stomach or colon, as to pass through the common duct, and in either case there are probably others which remain.

Finally, there are a few patients who come to us with severe symptoms in the upper abdomen, so serious that if they had been located in the pelvis or appendiceal region, operative interference would have been instituted at a much earlier period. We may not be able to make a pathological diagnosis, but we can a surgical one, that is, we can demonstrate beyond question that the cause of the symptoms is one of several conditions, all of which are surgical, and, such being the case, operation should be instituted before gross pathological changes make the differential diagnosis more certain, but unfortunately the prognosis less favorable. It is a question to be decided on its merits, and the patient should be allowed the choice in doubtful cases. We would not, however, advise a reckless resort to the knife for exploratory purposes. We should avail ourselves of all the diagnostic measures to be obtained from the laboratory, from the physical examination, and, beyond all, from the history of the patient; but it is a false conservatism which stands in the way of early operative interference in gallstone disease.—*The Clinical Review.*

Clinical Department.

A Case of Hematoma of the Ovary Simulating an Attack of Appendicitis. HAROLD W. WILSON, M.R.C.S. (ENG.), L.R.C.P. (LOND), Senior House Surgeon to St. Bartholomew's Hospital, in *The Lancet*.

The patient, aged 19 years, an unmarried woman, was admitted into President ward, St. Bartholomew's Hospital, on Feb. 11th, 1905, under the care of Mr. H. J. Waring, complaining of abdominal pain and general malaise of two days' duration. She had been in her usual fair state of health up to Feb. 9th. In the afternoon of that day, while sitting at her work, she was seized with sudden colicky pain in the right iliac fossa which lasted for approximately ten minutes. Then the acuteness of the attack wore off, and she was left with a dull aching and a feeling of soreness in the same region, which remained until the date of her admission. This pain was severe and was made worse by direct pressure and by movement. She vomited once at the time of onset and once subsequently in the evening of the same day. She had been more constipated than usual during the preceding week; otherwise no further symptoms could be elicited. There were no history of any hemorrhage or discharge from the vagina, no pain on micturition, and no pain in the left iliac fossa. She had never had a similar previous attack and had never suffered from "indigestion" or from a purulent vaginal discharge. The catamenia had been regular every twenty-eight days and of average amount. There had been no pain. The last normal period occurred from Jan. 3rd to 6th and had since then been absent.

The patient was seen in the out-patient department and was immediately admitted. When examined in the ward she was lying comfortably in bed on her back with her right leg slightly drawn up. Her general condition was good. Although anemic she did not look actually ill. The tongue was furred and showed no signs of cleaning. The pulse was 112, regular, and of fair volume and tension; it gradually dropped to 94 on the second day after admission. The temperature was 98.2° F. and remained subnormal throughout. Nothing abnormal was discovered in the thorax. The breasts were not active. The movement of the abdomen was fair, but there was slight restriction in the lower part. No fulness was evident. There were considerable tenderness and muscular rigidity in the right iliac fossa, the most tender point being about two inches below the centre of a line drawn from the right anterior

superior iliac spine to the umbilicus. No actual swelling was felt. On examination the vagina was found to admit two fingers, there being a very small crescentic hymen. No discharge was visible. The cervix was nulliparous, the canal being closed. There was considerable tenderness in the right lateral fornix. Bimanual examination was difficult owing to the patient holding herself extremely rigid. The uterus was normal in position and size. In the anterior part of the right poster quadrant was a rounded, indefinite, elastic, tender swelling, which appeared to be about one and a half inches in diameter and was not continuous with the uterus. Per rectum there was tenderness in the region of Douglas's pouch but no actual swelling could be felt. The leucocyte count was 8000 per cubic millimetre and remained constant.

As regards the diagnosis, the patient was thought to be recovering from what was most probably a slight attack of appendicitis. Except for the continuous subnormal temperature the signs and the symptoms would do very well for the acute catarrhal form, occurring in a "south-east" appendix. But bearing in mind the missed period the possibility of an ectopic gestation was discussed, the symptoms fitting in with what would be expected in the case of an unruptured tubal pregnancy into the sac of which a small hemorrhage had occurred. In these circumstances, after a couple of days' observation, it was decided to operate at once and not to risk any further delay. The abdomen was opened by an incision rather lower than the usual appendicectomy one, the muscles being divided in the direction of their fibres. The appendix was found lying in the "south-east" position and appeared to be quite normal, except that at its tip it was attached to a swelling in the pelvis by a recent adhesion. In, and projecting from, the upper and back part of the right broad ligament was a globular purplish swelling about two inches in diameter. It was extremely tense and contained fluid. The tumor was identified as an enlarged right ovary over the apex of which ran the right tube with its fimbria ovarica attached to the swelling. A good pedicle was obtained, transfixed, and the tumor was removed; in so doing, however, the ovary ruptured and about one ounce of dark fluid blood escaped. The left ovary feeling normal the abdomen was closed. The patient made a good recovery.

The ruptured specimen on being hardened quickly contracted down to the shape and size of an ordinary ovary. Continuous sections showed the normal ovarian stroma to be infiltrated with blood and at one edge of the hematoma a mass of lutean tissue was seen. No trace of chorionic villi could be discovered.

During the last two years five somewhat similar cases of ovarian hemorrhage coming on at or about the time of a menstrual period have been admitted into this hospital. In two of these cases the

gland was found actually ruptured and there was a mass of blood in Douglas' pouch, giving rise to a localised peritonitis. These cases are of interest as once more illustrating the extreme importance of carefully going into a woman's menstrual history in cases of attacks of acute abdominal pain, even though the pain be not within the limits of the "genital sphere." Occasionally cases are seen closely resembling in many respects an acute abdominal condition, such as a perforated gastric ulcer. But on examination it is found that the patient is menstruating and if she is put to bed and kept at rest the condition, whatever it may be, completely clears up in a week or ten days.

I am indebted to Mr. Waring for his kindness in allowing me to publish this case.

**Strangulated Femoral Hernia in a Man of Seventy-five—
Resection—Recovery.** CHARLES S. WHITE, M.D., House Surgeon
Emergency Hospital, Washington, D.C., in the *Jour. A.M.A.*

The following case presents some unusual features that seem worthy of notice:

Patient.—C. P., aged seventy-five, male, white, farmer, widower, born in Virginia.

Family History.—Parents died, after short illness, of cerebral hemorrhages, but at an advanced age. One brother died of intestinal obstruction, one of sunstroke. Two sisters are dead, but cause of death unknown. Of six brothers, five had acquired hernias. None, except this patient, has been operated on. He has a nephew who is ruptured.

Previous History.—The patient has had the usual infectious diseases of childhood. In 1895 he had cellulitis in his arm, following a wound of the hand, and he was disabled for four weeks. In 1898, he had a mild attack of pneumonia. With these exceptions, he has been unusually well, and until the present time he has been doing farm work every day.

Present Illness.—On May 17th, about 8 a.m., while lifting heavy logs, he had a sharp, severe pain in the right groin, but worked an hour longer. The pain increased and became unbearable so that he was obliged to return to his home, a distance of six miles, a half a mile of which he walked. He noticed the swelling over Poupart's ligament, and was seen by two physicians between 4 and 6 p.m., but neither was able to reduce the mass by taxis. He vomited once during the afternoon and spent a sleepless night. May 18th he was no better, and he was brought to this city. His bowels did not move any time after the initial pain until after the operation.

Examination.—When admitted to the hospital he was unable to walk and complained of pain in the groin; his pulse 90, full and strong, and temperature 97° F. He had not vomited during the previous twelve hours and was not nauseated. Near the lower attachment of Poupart's ligament there was a tumor about the size of a walnut, tense, not fluctuating and without impulse on coughing. It could not be reduced. The external inguinal ring could be felt and the swelling was below it. The skin was not inflamed. The abdomen was slightly distended.

Operation.—The patient was etherized and an incision about five inches long was made parallel and just below Poupart's ligament. The sac was exposed and was found gangrenous and constricted at Gimbernat's ligament. A knife was introduced on a grooved director and the stricture incised and torn sufficiently to release the hernia. The sac contained about two drams of bloody serum and a knuckle of sphacelated intestine. The abdomen was opened through the right rectus, and one and a half inches of ileum removed and an anastomosis made by a Murphy button. A wedge-shaped piece of omentum was excised. The sac was next transfixed by sutures, snipped off, and the stump returned to the abdominal cavity through the femoral ring. Then a radical operation for femoral hernia was done after the method of Bassini; kangaroo tendon was used for the buried sutures. The abdominal wound was next closed with catgut and silkworm gut. The operation consumed one hour and fifteen minutes.

Result.—The patient made a good recovery, sat up on the twenty-second day and left the hospital one month from the day of admission. The button was passed on the tenth day.

Remarks.—Only a very small percentage of hernias in men are of the femoral variety, and the occurrence of rupture in five of six brothers, while only a coincidence, naturally suggests an inherited weakness. In those cases of strangulated hernia in which the active reflex symptoms, nausea and vomiting, are replaced by a quiet, even painless period, we are sometimes deceived and imagine our patient is better. It is a condition which often precedes a fatal termination, and this can not be emphasized too strongly. The surgeon-general's library contains the report of many cases of femoral hernia with complications, but few in which a resection was done in an older patient than in the case here reported.

Traumatism of the Right Kidney. CHARLES B. DYDE, M.D.,
Greeley, Colo., in the *Jour. A.M.A.*

History.—G. C. F. came under my care April 28th, 1905. Ten days previously he had been kicked by a horse, in the right lumbar region, while at work in a livery barn. During these ten

days he had been cared for at Kersey, Colo., where the accident occurred. He was prostrated by the force and shock of the injury and for some days suffered intensely. Six or seven days later, as he was feeling much better, he dressed and walked for a few minutes. This was followed by considerable hemorrhage from the bladder, a slight trace of which was observed the day after the injury. As this complication continued, he was removed to Weld County Hospital, where I first saw him. His previous history presented some interesting and noteworthy points. Three years earlier, while in the United States Navy at Norfolk, Va., he had been operated on for appendicitis. Peritonitis and a fecal fistula developed and posterior drainage was made. Later empyema appeared, and this was also drained. Before the integrity of the bowel was restored he underwent a series of six operations. In a year's time he was restored to health, receiving as a legacy an extensive system of adhesions on his right side from diaphragm to pelvis.

Examination.—He was a young man, aged twenty-three, of good development, well nourished, and when not in pain looked well. His condition at this time was marked by severe pain in the right side of the abdomen and very bloody urine; temperature normal and pulse about 80. The right abdomen was very rigid and slightly swollen. The side on a level with and a little anterior to the quadratus lumborum showed the site of the impact, being still discolored.

Hospital History.—During the ten days succeeding his admittance to the Weld County Hospital he showed some improvement, the urine gradually cleared and the pain diminished. Morphia, of which he had been receiving thus far one to two grains daily, was now gradually omitted. The swelling, external to the adhesions, was slightly increased, and the rigidity remained. At this time of apparent improvement, contrary to instructions, he got out of bed and walked as far as the ward lavatory. This indiscretion was followed by a return of both pain and hemorrhage. The pain was very severe, extending from right kidney to testicle, and intermittent in character. He would lie on his right side, knees doubled up, one hand supporting his scrotum. The urine at this time became so bloody that a catheter was frequently required to relieve the bladder. In consultation with Drs. Church and Hughes it was agreed that the renal colic was due to blood clots passing down the right ureter, and that the tumor was probably a sac of extravasated blood. The advisability of operation was considered at this time, but he was strongly opposed to this, his previous experience giving him a strong distaste for the knife. This condition of pain and hemorrhage continued for several weeks, with occasionally a short amelioration of symptoms. As a rule from one to two grains of morphia were required during the twenty-four

hours to control the pain, the amount being gradually increased. By this time he had become thin and very anemic; his appetite was poor and bowels constipated. The tumor was very marked, and the rigidity was extending. The pain while sometimes that of renal colic, was usually a general pain through the abdomen, burning in character, and extending well over to the left side. The temperature presented an occasional rise of a degree or two; the pulse was the same as before, but somewhat weaker. During the first ten days of June, the hemorrhage continuing, his weakness increased, and his condition was rapidly becoming critical. At this time a consultation was held and we decided that operative measures presented the only sign of hope. This conclusion was communicated to him and his consent was obtained.

Operation.—We operated on the morning of June 13, just eight weeks after his injury. Kocher's oblique incision was made, by means of which the kidney may be exposed and, if necessary, removed. After going through the layers of muscle and fascia, instead of perirenal fat or kidney presenting in the wound, we found we had opened a large cavity, which seemed full of blood clots. On removing those most superficial, which were partly organized, we encountered a profuse and active arterial hemorrhage. At this moment the anesthetic, Dr. Weaver, stated that the pulse suddenly increased to 140. Compression controlled the hemorrhage until a number of strips of gauze were tightly packed into the cavity; at the same time strychnine and normal saline solution tided the patient over and prevented death on the table. He lived eighteen hours.

Autopsy.—This revealed what we considered an unusual and remarkable condition. The right kidney, entirely free in the cavity, which contained two quarts of blood clots, was broken into three pieces, retaining not the slightest connection with vein, artery or ureter. We considered that his days had been prolonged by the system of adhesions, which walled off and limited the hemorrhage, and that the gradual stretching and tension of these, as the swelling increased, created a great deal of the abdominal pain.

A Peculiar Case—Perhaps Neurasthenia. WILLIAM HIMMELSBACH, M.D., San Francisco, in the *Jour. A.M.A.*

History.—Woman, aged thirty-five, single. When I first saw the patient, in June, 1903, her condition was that of a pronounced neurasthenic. There was mental depression, irritability alternating with apathy, pain in neck and along the spine, tremor of the hands, occasional twitching of muscles of the face, and dilated pupils.

She had been in bed two weeks. Her previous history was that of a well-balanced, active woman, fond of outdoor recreations of all kinds and passionately devoted to music. Her weight previous to her illness was 135 pounds. Like most neurasthenics, she had an obsession; hers was that food is injurious. From the relatives the following facts were elicited: She had gradually abandoned all her pursuits, complained of tiring easily, and had lost flesh gradually, until at my visit she weighed but 85 pounds. There were no indications of an acquired neurasthenia through the usual exciting causes, neither was there any family history that pointed to an inherited neuropathic tendency. Examination of pelvic and other organs was negative.

Treatment.—No medical treatment was instituted, but, after gaining her complete confidence through various suggestions, she again took up her former pursuits, and within three weeks developed a voracious appetite, accumulating fat at such a rate that in March, 1904 (a period of nine months), she weighed 240 pounds, an increase of 155 pounds, accompanied by an amount of physical energy that was startling. Any attempt to restrain either her appetite or her movements was met with violent opposition.

Subsequent History.—So she remained till June, 1904, when, just as unaccountably, she stopped eating and the adipose tissue visibly melted away, so that in October, four months later, she dropped from 240 to 135 pounds. Her pulse became feeble and rapid, at times almost imperceptible, requiring considerable stimulation. There was likewise an edema of the feet and legs. Examination of urine was negative. She would take to bed for weeks at a time. In January, 1905, her long-lost appetite reappeared and with an increased voraciousness, mostly confined to cereals and milk. The quantities consumed were simply enormous. I have watched her eat for two hours at a stretch, actually shovelling in the food. To-day she again weighs 245 pounds, an increase of 110 pounds in six months, with every prospect of a still further increase in weight, I trust not in appetite. I am daily looking for a "tack" in the opposite direction. Her mind remains clear.

A Large Hydrocele of the Tunica Vaginalis. C. LLOYD WORRALL,
L.R.C.P. London, L.S.A., District Surgeon, Barberton, Transvaal, in
The Lancet.

On May 30th I was called to see a native (at the office of the Commissioner of Native Affairs) who was reported to be "suffering from an extraordinary enlargement of the testicles." Visions of elephantiasis of the scrotum flashed across my mind, but these

were soon dispelled on examining the case. The history briefly was that the tumor had been gradually developing for four years and that it had never given much pain except that on walking there was a general ache. The patient had no recollection of any injury whatsoever to the parts.

I found on examination an enormous scrotal tumor of fairly regular outline, the left side being considerably the larger—it was quite dull all over on percussion and had that elastic feel which strongly suggested fluid. An examination for translucency proved quite negative. There was no impulse on coughing and the spermatic cord could easily be traced to the external rings. The penis was merged into the tumor in such a way that the prepuce alone was in evidence. As I was convinced that the tumor could be no other than an enormous hydrocele I decided to tap it and drew off in all lightly over seventy-eight ounces of fluid. This was contained in two sacs. In the larger one the fluid was dark from what appeared to be disintegrated blood, and in the other sac it was the ordinary straw colored hydrocele fluid.

I venture to report this case as it has one or two points of interest—its enormous size and yet causing little pain or discomfort. Again, it was noteworthy that notwithstanding the fact that this hydrocele had been forming for something like four years and reached such a size, the testicles seemed quite normal in size and apparently showed no sign of atrophy. One would have thought that the abnormal pressure of the fluid would have tended to make these organs degenerate and shrink. Another little point worth mentioning is that this native had come in to see the commissioner to report his wife having run away with another native. What a domestic tragedy could possibly have been avoided had this wretched man thought fit in good time to call in the services of a surgeon.

I regret that I am not in reach of any special work on the diseases of the generative organs and therefore am not able to determine the frequency or otherwise of these enormous hydroceles. I note that Erichsen quotes "that Gibbon, the historian, had an enormous hydrocele, which was tapped by Cline, who drew off six quarts of fluid."

A Freak Case of Appendicitis. LOUIS L. NICHOLS, M.D., in the
Brooklin Medical Journal.

My patient is a newspaper man about thirty years of age. He inherited a nervous temperament, but has been in fair health with the exception of an attack of typhoid fever some six years ago. He recovered from this without complications. There was no history of indigestion or colicky pains preceding his acute attack

of appendicitis, which came on gradually Sunday morning, October 25th, 1904. I saw him first about 7 o'clock the same evening. He had been vomiting all day and his pain was spasmodic in character and distributed over the whole abdomen. There was no distention and no especial point of tenderness. There had been three or four attempts to go to stool, but with little result. There was no irritation of the bladder. The pulse was 100, and the temperature 99.

With these symptoms I was apprehensive of appendicitis and warned the family as to what to expect. The patient was ordered 1-10 gr. doses of calomel half hourly, to be followed in the morning by magnesia sulphate.

When I saw him on the following morning there was slight local tenderness in the right iliac region, with some distention and rigidity of the right rectus muscle. Vomiting had ceased, but the bowels had not moved. The temperature was $99\frac{1}{2}^{\circ}$ and pulse 106, and of good character. An ice bag was ordered, applied over the tender point, and magnesia sulphate continued till free catharsis was established. My patient had passed a restless night with but little sleep and he had a worried expression. A consultation was advised and held that afternoon with Dr. Walter Wood. During the interval which elapsed between my morning visit and the hour of the consultation the patient's bowels had been freely evacuated and he appeared much better in many ways. The pain had practically subsided; there was very little tenderness or rigidity, the most tender point being well over against the crest of the ilium; there had been no return of the vomiting during the day and the distention was gone; my patient had lost his worried expression, was hungry and wanted to sit up. In fact, the improvement was so marked that I began to doubt the accuracy of my diagnosis. Dr. Wood confirmed the diagnosis, however, but it was believed at this time that we were dealing with one of those catarrhal cases of appendicitis which so often shows improvement after the free use of salines, and that the case would gradually go on to recovery without surgical intervention.

How remote from the actual facts in the case our conclusions were, became evident from subsequent events. To be sure my patient, from this hour, went on to complete recovery, but in a way quite different from what we anticipated. The more severe symptoms gradually abated, the temperature and pulse slowly returned to normal, but in the meantime a mass in the right iliac region became clearly defined. There was slight tenderness to pressure over this mass and indisposition to move about in bed because of the board-like feeling over the region and pain caused by such motion. The patient's tongue did not clear nor the appetite improve as they should do with a case getting well. While I was speculating over the final outcome in a case presenting these unfavorable symptoms, and trying to decide upon the safest course

to pursue, Nature solved the problem for me in a most novel and unexpected manner. One week from the beginning of the attack my patient passed a very restless night, complaining of discomfort and tenesmus in the bowels. In the morning there were several loose stools and in one of them something which attracted the nurse's attention. On examining it I found what appeared to be a very much attenuated appendix about two and a half inches long, with a perforation at the distal end. I submitted the specimen to Dr. Wood and he was skeptical about its true character. I then sent it to Dr. Archibald Murray for examination, and his report follows.

After his auto-operation my patient's recovery was rapid and without complication. The mass in the right iliac region gradually disappeared, and three weeks from the onset of the attack he was perfectly well, and has remained so to this day. Had not a very watchful nurse rescued this appendix from the bed pan we should still labor under the delusion that my patient's anatomy remains intact as it was originally created and that he simply suffered from an attack of catarrhal appendicitis.

This case was rare, but there have been other similar cases recorded. How many unrecorded cases there may have been where a sloughing and unrecognized appendix has passed from the bowel into the sewer we shall never know.

My object in presenting a freak case of this sort was not because of any particular interest attaching to its novelty, but to draw out discussion on the following points:

1. Should we have operated upon my own case at the time of the consultation or subsequently; and can we formulate any safe rule to guide us in the management of similar cases?
 2. Should every case of appendicitis be treated surgically and operated upon as soon as a diagnosis can be made, other conditions being favorable?
 3. Or should we adopt the expectant plan and treat each case according to the symptoms as they arise?
- By which plan can we effect the greatest number of cures?

BROOKLYN, October 9th, 1904.

Dr. L. L. Nichols, Brooklyn, N. Y.

My dear Doctor:—I have made sections from the tissue sent me, but it is absolutely necrotic and refuses to stain. Still, outlines of what were probably once glands, lymphoid elements and a muscular and fibrous coat can be made out and I should not hesitate to call the specimen an appendix. I have put it aside for you.

Very truly,

ARCHIBALD MURRAY,

386 Stuyvesant Avenue, Brooklyn.

In his recent work on the "Vermiform Appendix" Dr. Howard Kelly has collected the history of four similar cases.

Bronchoscopy for the Removal of a Collar Button from the Lung. E. FLETCHER INGALS, M.D., Chicago, in *The J. A. M. A.*

Patient.—C. D. H. was sent to me May 23, 1904, by Dr. F. W. Wilcox, of Minonk, Ill. He was a man 22 years of age, who had formerly weighed 142 pounds, but who then weighed 107½ pounds.

History.—He told me that fourteen months previously he had accidentally drawn a collar button, presumably of vegetable ivory, into the air passages. He at once felt the sensations caused by it near the upper part of the sternum on a level with the second rib; subsequently he had some soreness in the same place. He expectorated a little blood a few minutes after the accident, and he said that there quickly appeared a peculiar squeak in the breath sounds. Pneumonia developed on the left side within twenty-four hours and lasted for one month. He had coughed ever since. He had sometimes felt something moving up and down in the lower portion of the trachea and a valve-like action with choking for a few seconds. His father stated afterward that the patient frequently had these choking attacks, coming on without apparent cause and without cough. The last time this sensation had been noticed was four months before he came to see me. He said he had been coughing continuously ever since, mostly at night. This was probably due to a change in position of the foreign body. During the summer immediately following the accident he had had an aggravation of the symptoms with daily fever in the afternoon, during which time he had been kept in bed for a week or two. His recovery from that attack had been very slow. When I first saw him he complained of occasional pain in the left side, referred to the second interspace about an inch to the left of the sternum and occupying an area about two inches in diameter. He had felt no pain in any other portion of the chest, except low down on the left side, at the time he had the attack of pneumonia. His previous history was negative. The heredity was good, there being no tuberculosis on either side of the family. He was a twin, and reported that his brother was strong and well.

Examination.—He had been much weakened by his prolonged illness, was pale and very anemic; he had dyspnea on any exertion and had some swelling of the feet. The voice was clear. I found the pulse 120, the temperature 99.6. He complained of coughing a good deal, mostly at night, and said that he raised occasionally a thin sputum of a brick-dust color, but there were only from two to four drams daily. There had occasionally been faint traces of blood in the sputum, but no distinct signs since immediately after the accident. His appetite was good, but digestion only fair; bowels loose, urine normal. There were no abnormal signs in

the nares, but the larynx and trachea were moderately congested. The hemoglobin was found to be only 65 per cent. The sputum contained many pneumococci and pus cells, but no tubercle bacilli.

On examination of the chest I found very little movement, with retraction of the left side. The right side an inch below the nipple, measured from $15\frac{1}{4}$ to $15\frac{1}{2}$ inches, the left from $14\frac{1}{2}$ to $14\frac{3}{4}$ inches, but there was no change in the line of dullness on changing the patient's position. The patient said he had been aspirated twice about eight months ago, but no fluid had been found. There was dullness on the left side above the second rib, except a small area between the first and second, and flatness below that level all over the lung. The resonance and respiratory murmur were exaggerated over the right side. The apex of the heart was found in the fourth interspace one-half an inch to the left of the mammillary line. On the left side there was bronchovesicular respiration in the supraclavicular region. From the clavicle to the third rib the breath sounds were very indistinct; below this they could not be heard at all. The voice sounds were exaggerated above the left clavicle and they were quite distinct as low as the second interspace; but they were somewhat feebler over the remainder of the left lung than over the right side. The vocal fremitus was absent below the third rib. The heart's action was rapid and regular and the sounds were normal. Posteriorly there was marked dullness at the left apex extending an inch and a half below the spine of the scapula, with absolute flatness below this line. The resonance and respiratory sounds were exaggerated on the right side. There was bronchovesicular breathing at the apex of the left lung though not very intense. On forcible respiration very often breath sounds could be heard as low as the low border of the left lung.

Fluoroscopic examination showed a dense shadow all over the left side, excepting a small area in the infraclavicular region, where the shadow was less marked. I sent the patient to the Presbyterian Hospital and had a skiagraph made, but nothing could be seen, the lung being so dense that even the ribs did not cast a shadow near the roots of the lungs. Three other negatives were taken with similar results.

Treatment.—On the afternoon of May 23rd, assisted by several of the internes, I gave the patient chloroform, and by upper bronchoscopy attempted to remove the button. Although I had previously given the patient one-sixtieth of a grain of atropin, there was still abundant secretion in the trachea and a large amount of expectoration. Indeed, he coughed practically all of the time during the operation, which lasted from the time the chloroform was started until I desisted, in all about two hours. During this time he spat up large quantities of bloody pus, which was only

kept out of my eyes by placing a pane of glass between my face and the bronchoscope. The pus rendered it very difficult to see what I was doing and compelled me to swab out the passages almost continuously. After swabbing out the pus I could only get two or three seconds before he would cough again. This seemed to result from the passage of the bronchoscope into an abscess. The patient took the chloroform so badly that we were not able to keep him profoundly under it, and I frequently touched the bronchial tubes and the walls of the abscess cavity with a solution of cocaine, but the amount of pus was so great that it had little effect. In the examination of the left lung I was unable to see the numerous branches of the bronchi that are usually apparent, though I followed one of the branches far down until the bronchoscope was introduced its full length, 33 cm. below the incision teeth. I searched carefully by inspection and palpation with a small hooklet but was unable to locate the foreign body. There was considerable granulation tissue about the bifurcation of the trachea that for some time interfered seriously with the inspection, and one mass presented the appearance of a small polypus which nearly filled the bronchoscope. I had not yet been told of the peculiar choking spells, and, therefore, did not have in mind anything of a polypoid nature in that region. The mass that I saw I did not dare to remove, fearing that it might be connected with the bronchus in such a way that I would open through the tube and cause a pneumothorax. During the operation a part of the time I used for removing the pus a strip of one-inch gauze, which was crowded down the bronchoscope with a large wire, the end of which had been flattened and forked, like that used in the ordinary urine packer. This worked fairly well, but much of the time I used cotton swabs attached very securely to long brass carriers. At one time in swabbing out the pus the sliding ring for fastening the cotton on the carrier caught on the end of the bronchoscope and I had a little difficulty in disengaging it. As the swab was withdrawn I examined it and found the swab of cotton intact, but it seemed to me a little smaller than the others. However, I concluded that this was due simply to its having become saturated with pus. Some time later I discovered at the end of the bronchoscope a white mass which looked like a large swab of cotton. I grasped this with the forceps and withdrew it, thinking it must be a pledget of cotton that had been lost off at the time the instrument caught. Not wishing to direct attention to the interne who had been fastening the cotton on the carriers, and who, by the way, was one of the best men in the hospital, I simply called his attention to it by a look and threw it aside without examining it. This mass appeared fully twice as large as any of the pledgets of cotton after they had been saturated with the pus, and considering the subsequent history, I am now confident that it

consisted of the collar button surrounded with necrosed lung tissue.

Result and Subsequent History.—During the operation the patient's pulse varied from 110 to 150, but all the time was fairly full and regular. Immediately afterward he appeared to be doing well. The next day there was no temperature and the patient said he felt fine. Two days later he was discharged and went to his home in the country. Two weeks later I received a report that he was improving very rapidly, did not cough excepting a few times in the morning, had a ravenous appetite and had gained eleven pounds. A month later another report stated that he was feeding fine and had gained twenty-two pounds. Two weeks later he came to see me so changed in appearance that I did not know him. He coughed very little, indeed, had no pain, no dyspnea on exertion, had a ravenous appetite and weighed 130 pounds. An examination of the left chest showed only slight dullness from the second to the sixth rib, showing that the lung had cleared up greatly from the third to the sixth rib; flatness below the sixth rib, otherwise in front and laterally signs over the chest were much as at the first examination, except that the apex of the heart was found about $1\frac{1}{4}$ inches to the left of the mammary line. Posteriorly the respiratory sounds were good over the left lung as low as the eighth rib, but feeble or absent below that level. The fluoroscope still showed a shadow over the left lung, but much less dense than formerly.

In response to a letter the patient called on me recently. He said he had been working twelve hours a day since September, had no cough, no temperature, felt fine and weighed 136 pounds. Examination of the chest showed very slight diminution of resonance over the left side as low as the sixth rib in front and laterally, and as low as the eighth rib, posteriorly, with a vesicular murmur in the same region about two-thirds as intense as on the right side. The lung was somewhat contracted and the heart drawn from one and a half to two inches to the left of its normal position. No respiratory sounds could be heard below the eighth rib posteriorly, probably due to drawing upward of the lung and diaphragm. The normal superficial area of cardiac dullness had disappeared over the right half of the lower part of the sternum on account of the increased activity of the right lung and the dislocation of the heart to the left caused by retraction of the left lung. The patient felt perfectly well, and, considering the history, I feel justified in reporting the operation as a complete success, although I did not at the time examine critically the mass that seemed to have been causing the trouble.

Therapeutics.

The Treatment of Ulcerative Colitis.

There has been a notable increase in the number of cases of ulcerative colitis observed in London during the last three years. At one time it was a comparatively rare disease, and on consulting the records of the Westminster Hospital from 1884 to 1902, inclusive, I find there were only fifteen cases. To what the increase is due it is difficult to say; possibly it is associated in some way with the prevalence of appendicitis, or it may be connected with the convalescent dysenteric cases sent home from South Africa. In several of my cases there was a curious, although indefinite, history of contact with people who had suffered from intestinal disease during the war.

The term "ulcerative colitis" is admittedly a bad one, sanctioned only by long usage, for ulceration of the large intestine may be in origin dysenteric, malignant, tuberculous, or enteric. Much difficulty is experienced in distinguishing between the different forms of inflammation affecting the colon, and *post mortem* it is impossible from an examination of the large intestine alone to differentiate between ulcerative colitis and chronic dysentery.

Ulcerative colitis attacks both sexes, but is slightly more common in men than in women. The majority of cases occur between the ages of twenty and thirty years; exceptionally it may occur in children. The clinical features of the disease are characteristic. The onset is insidious, there is no rigor, and nothing in the early stages to distinguish it from an attack of common diarrhea. Pain is not a prominent symptom, and tormina and tenesmus are absent. As a rule, no cause is assigned by the patient. The temperature is persistently high, varying for many months from 100° to 103° F.; sometimes it is but little elevated, and it is usually subnormal during the last forty-eight hours of life. Diarrhea is always a prominent symptom, and is practically unceasing, there being often from 60 to 100 motions in the twenty-four hours. The motions are liquid and offensive, rarely formed, consisting of mucus with or without blood. Microscopically they show torulæ, streptococci of various kinds, bacilli (the *B. Coli communis* and others), with pus, epithelial cells, and the *débris* of food. Vomiting may be persistent, but is sometimes absent, or occurs intermittently. The tongue is clean, red, and irritable, or covered with dirty brown fur. There is no loss of appetite, and the patient urgently demands more food, in spite of the fact that it increases the diarrhea. Loss of weight is always noted, and is usually at the rate of 3lbs. or 4lbs. a week. There is loss of

energy, and the patient is usually anemic. The anemia, however, is never intense, and even after many weeks of illness the erythrocytes may number over 4,000,000 per c.mm., with hemoglobin 60 per cent. or more. There is no mental depression, and the patient remains bright and cheerful to the end. Bed sores and ischio-rectal abscesses are common, but nothing is found in the liver. The duration of the disease is variable, and may extend over a period of three or four years.

The *post mortem* appearances present considerable uniformity, and there is always a condition of ulcerative colitis throughout. In the ascending and transverse colons, numerous circular punched-out ulcers, varying in size from a threepenny piece to a florin, are seen. The mucosa of the colon from the splenic flexure to the anus is extensively ulcerated, the remaining mucosa being much thickened and standing well up above the ulcerated surface.

Not infrequently the appendix is involved, and it may be glued to the pelvic brim by adhesions or may contain fecal calculi.

Medical treatment commonly fails to do any good, not even ameliorating the symptoms. In a series of cases under my care, the following modes of treatment proved inefficacious: (1) Opium and morphine in all forms given by the mouth, hypodermically, or in enemata; (2) carbinat of bismuth in large doses up to half an ounce every four hours; (3) salicylate of bismuth; (4) astringents, including perchloride of iron, sulphate of copper, and acetate of lead; (5) intestinal antiseptics, including *B. naphthol*, salol, and various preparations of formic aldehyde; (6) ipecacuanha given dry and with the usual precautions; (7) sulphate of magnesium and sulphate of quinine given alternately.

Surgical treatment has been attempted, but the results are not satisfactory. The operation commonly performed is that of establishing an anastomosis between the ileum and the lower end of the colon, or failing this, a right-sided colotomy. In one of my cases Mr. Walter Spencer attempted catheterisation of the appendix, washing out the bowel freely from above with douches of normal saline. The result was unsatisfactory, but it is possible that if it had been performed earlier it might have been successful. The only method of treatment I have found efficacious is the injection by the rectum of argyrol—a chemical combination of silver with synthetic vitellin containing 30 per cent. of silver. The following cases are illustrative:

CASE 1.—A man, aged sixty-four years, was admitted into Westminster Hospital on May 28th, suffering from ulcerative colitis. He was born in England; his father was an Englishman, and his mother a native of Calcutta. When a few months old, he was taken to India, and remained there until the age of thirty-six years, when he returned home. Whilst in India his health was perfect, and he had neither diarrhoea nor dysentery. About ten

years ago he developed a chronic and intermittent diarrhea, which, during the past twelve months, had been accentuated, the bowels as a rule acting four times in the day and five times at night. He had attended as an out-patient for nearly a year, but the diarrhea continued with unabated severity in spite of much treatment. He had been steadily losing flesh and strength for some months. There was no cough, and no night-sweating.

On admission, and for some days subsequently, the temperature was elevated, varying from 99.4° to 101.8° F. There were usually from five to seven motions in the twenty-four hours, the stools being fluid, fairly copious, slimy, free from blood, and not offensive. There was no vomiting. There was hyperesthesia on deep palpation all over the abdomen. The tongue was clean and moist.

The patient was dieted and given acetate of lead and other astringents, but without benefit, and his general condition was unsatisfactory. From June 5th to 9th inclusive he had twenty-three motions. On the 10th, after a preliminary enema of boric acid, eight grains to the pint, he was given, by means of an irrigation tube of small diameter, a rectal injection of a 1 per cent. aqueous solution of argyrol at a temperature of 80° . When about five pints had been introduced, the patient being in the knee-and-elbow position, attention was called to the fact that a claret-colored, odorless fluid was pouring out of his mouth, a fluid identical in color and appearance with that in process of injection into the rectum. The time from the commencement of the injection was four minutes. There was some nausea, but no retching or vomiting, and the fluid as it flowed from the mouth was received into a clean white porringer. A suggestion being made that it was altered blood, it was examined both microscopically and by the usual tests, but no blood was present. It was examined for bile, and again with a negative result. The patient had taken nothing in the way of food but some tea early in the morning, and subsequently a little milk and bread and butter. The specimen was sent to Dr. Wilson-Hake, at the Westminster Hospital Medical School, who reported that it was a solution of silver not differing apparently from a 1 per cent. argyrol solution with which it was compared.

The patient seemed none the worse for the injection, and had a fairly good dinner. On the following day he had only three motions, and on June 12th the same number. The temperature was normal on the 11th, but on the 12th it rose to 102.4° , falling again in a few hours to normal. From this time there was no return of the diarrhea, the bowels never being opened more than once a day. As a matter of precaution, the injection was repeated on the 14th and 16th, but there was no repetition of the regurgitation of fluid from the mouth. In a few days the patient was able to take meat and potatoes and green vegetables. He rapidly

regained weight, and on July 6th was discharged. He was seen again two months later, and was then perfectly well.

The foregoing case illustrates not only the curative effect of an injection of argyrol into the bowel in ulcerative colitis, but the fact that a fluid introduced into the rectum may be discharged unaltered by the mouth. The evacuation of a substance injected into the rectum in so short a period as four minutes is noteworthy. It may be suggested that there was a short circuit between the rectum and the stomach, but there was nothing pointing to the existence of so abnormal a condition. The occasional vomiting of enemata by hysterical and other patients is not unknown, and many cases are recorded. Many years ago Nothnagel reported, as the result of a series of experiments, that anti-peristalsis never occurred in the normal uninjured intestine if no pathological influences were brought to bear on it. The effect was investigated of the injection into the rectum of various fluids colored with carmine, *post mortem* examination showing whether they had been carried higher by any movement of the intestine itself. The best results were obtained with from three to five cubic centimetres of a strong solution of chloride of sodium, but the staining never reached farther than the cecum. Angeraut, in a thesis published in Paris in 1894, affirmed as the result of experimental investigations that the ileo-cecal valve did not always present the adequacy attributed to it by anatomists, and that it might be permeated by fluids introduced into the rectum. Coutani has recorded two cases in which, after injections of large quantities of olive oil into the rectum for the relief of constipation, the patients were seized with eructations and vomiting, the vomiting matter containing oil. Jaccoud mentions the case of a hysterical young woman who, from time to time, vomited motions which were formed, cylindrical, brown in color, and of characteristic odor. Fully realizing the deception often practised by such patients, every possible precaution was taken, but the phenomenon continued. Ten days later the patient contracted enteric fever, dying in the third week, but at the necropsy no anatomical peculiarity was detected, there being nothing observable but the characteristic lesions of the disease. Briguet reports a case in which an enema of coffee was vomited a quarter of an hour after its administration. Experimentally, an injection was given of a fluid, colored blue with tincture of litmus, and in twelve minutes it was rejected by the mouth, having been turned red by the acid of the gastric juice. In a similar manner a saline injection was evacuated by the mouth, and gave the usual reaction with nitrate of silver. Pie mentions a case in which an injection of 150 grammes of almond emulsion, containing ten minims of tincture of opium, was vomited in half an hour, the patient distinctly recognizing the taste of the laudanum. Suppositories even are sometimes rejected by the mouth. Sennest records the case of a girl,

aged twelve years, who vomited a large suppository introduced into the rectum, "dans le temps de réciter un *Pater noster* et un *Ave Maria*." A second suppository secured by a thread was then introduced, but the reverse peristalsis was sufficiently strong to break the cord, and the suppository was vomited with the fragments of thread attached. A third suppository was tried, secured by four strong ligatures, but the result was the same.

CASE 2.—A postman, aged twenty-four years, suffering from ulcerative colitis, was sent to the hospital for treatment on November 16th, 1904, by Dr. H. E. Hewett, of the Medical Department of the General Post Office. The patient stated that eight months previously he had been in hospital at Lewisham, for what was supposed to be enteric fever. Prior to that and for a year or more he had suffered much from constipation. After his acute attack, he remained in good health until four weeks before admission, when he noticed that his motions, which were passed frequently, were fluid and blood-stained. The evacuations soon became more frequent, more slimy, and contained more blood. There was pain in the abdomen, especially after defecation. The appetite remained good, but there was considerable loss of weight, and he was unable to follow his occupation. Patient's brother, who had had recurrent attacks of dysentery in South Africa, had returned home eighteen months previously, and they had occupied the same bed.

On admission, the patient was thin, but fairly well nourished, and of good color. His weight was 8 stone 13 lbs. His daily temperature ranged from 99° to 102°. There were on an average five motions in the twenty-four hours—fluid, and containing much mucus, with some blood, but not offensive. Vomiting was frequent, and there were thirty attacks in nine days. A uniform tympanitic note was detected over the abdomen, reaching on the right side three inches above the costal margin. The urine had a sp. gr. 1.030, was acid, and contained no blood and no albumin. An examination of the blood showed red cells 5,420,000, and white 23,600 per c mm., with hemoglobin 90 per cent.

The patient was at first placed on fish diet, but, as this increased the diarrhoea, he was restricted to liquid nourishment. A mixture of bismuth and hydrocyanic acid with capsules of creosote and carbolic acid failed to effect any improvement. His weight fell rapidly to 7 stone 10 lbs., and his general condition was unsatisfactory.

On November 29th, after two preliminary enemata of boracic acid solution, eight grains to the ounce, he was given a high rectal injection of a 2 per cent. solution of argyrol, diluted with an equal quantity of boiling water. Five pints were introduced by syphonage, the operation lasting nine minutes. Some of the fluid returned, but most of it was retained. The patient vomited after the injection, but there was no argyrol in the vomit. On the 30th there

were four motions and the patient was sick once. On December 2nd the highest temperature was 100°, and there were eight motions, with one attack of vomiting. On the 3rd the highest temperature was 99°, and there were eight motions. After this the patient rapidly improved; there was no more vomiting, and the bowels were relieved only once or twice a day, the motions being formed and free from blood and mucus.

The first chart shows the temperature and general condition of the patient a few days before the injection.

The next chart illustrates the condition a few days after the injection.

The patient made an uninterrupted recovery. From the 8th to the 17th there were no motions and there was no vomiting. The temperature was normal, and he gained weight at the rate of about 8 lbs. a week. He was placed on solid food, with vegetables, and on Christmas Day had for dinner a plentiful helping of turkey and pudding. On December 26th he was able to get up, and left the hospital on January 4th, 1905, apparently in perfect health.

I have had four similar cases in private practice, but of these I have no notes. For the preliminary injection, a solution of borax will be found better than boracic acid, as it is less irritating, and more speedily clears away the mucus.—WILLIAM MURRELL, M.D., F.R.C.P., in the *Birmingham Medical Review*.

Hay Fever and Its Treatment. Vasomotor rhinitis is due to irritation of the nasal mucosa by pollen, dust, or smoke. Sudden weather changes, neurotic heredity, uricemia and other nasal affections predispose. The affection occurs at all ages in periodic, sudden annual recurrent paroxysms, chiefly in summer and autumn. The symptoms include pricking and stinging sensations in the nose; persistent sneezing and cough; headache, paroxysms of asthma (usually about fourth week), simulating bronchial form and sudden and apparently causeless onset. More or less complete nasal stenosis, due to swelling of mucous membrane; dyshagia, sense of suffocation; epiphora and itching lids; photophobia, insomnia, general irritability and nervousness; there may be slight fever. The secretion is thin and serious (never mucopurulent) and profuse, tending to collect in the lower part of the nostrils. The mucous membrane is greatly swollen, bluish-gray, glassy, opalescent and water logged, as in acute rhinitis, with excessive hyperesthesia, as shown with a probe, particularly at lower posterior part of the septum and inferior turbinate bones. The inferior turbinate bodies are situated higher than normal. The eyes are suffused, and there is often

chemosis and edematous puffing of the eyelids, with lacrymation. As to treatment, Walter F. Chappel recommends cinchonidia in some form. Thornton prescribes extract of suparenal gland, five to ten grains at a dose three times a day. Waugh gives atropine, 1,500 grain every half hour till the secretion is checked. Hollopeter's monograph on the subject may be summarized as follows: Correct any gross lesion (polypi, hypertrophy, deviated septum, etc.), in nasal passages as far as possible. Use daily nasal sterilization, cleansing both nostrils with Dobell's solution, first with hand ball atomizer, then scrub the nasopharynx carefully in every portion, using a curved aluminum applicator or Allen's nasal cotton carrier. Then dry membrane with clean cotton and use freely a mild solution of menthol in liquid petrolatum loosely plugging the nose for a few minutes to retain the oily application. In old, habitual cases commence treatment two or three weeks before date of anticipated recurrence; also correct constipation (with effervescing soda night and morning) and amylaceous dyspepsia (tinct. nuxvomica m. x. t.i.d. for poor appetite), and anemia (pills of valerianate of iron, quinine, and zinc). Observe careful diet, tranquil mind and moderate out door exercise, avoiding the direct rays of the sun. A daily tepid bath, followed by vigorous friction of the whole body, is helpful.—*Denver Medical Times, July 1905.*

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

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EDITORS:

GRAHAM CHAMBERS, B.A., M.B. WALTER McKEOWN, B.A., M.D.

ASSOCIATE EDITOR:

T. B. RICHARDSON, M.D.

MANAGING EDITOR:

GEORGE ELLIOTT, M.D.

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COMMENT FROM MONTH TO MONTH.

The Trustees of the Toronto General Hospital are to be congratulated upon their choice of superintendent, Dr. J. N. Elliott Brown, not long ago returned from the Yukon, where he filled several responsible positions, experience in which only adds to his executive ability to tackle the responsibilities which now lie before him. Our acquaintance, or rather friendship, with Dr. Brown dates back twenty-three years, and though not for all that time has his steady upward course in life been under our direct and constant surveillance, we can say of him, he is deserving of the honor and responsibility which now falls to his lot—and there is both in this position. Nor is he unknown to the medical profession throughout Ontario, for, for several years he was General Secretary of the Ontario Medical Association. When practising in Toronto, seven years ago, he was recording secretary of the Toronto Clinical and Toronto Medical Societies. He has had good hospital training having been a year as house surgeon in

the very same institution over which he has been called to preside besides having been closely associated for several years with the work at St. Michael's Hospital. He was also a faithful worker for a time in medical journalism. Thus his experience and the work of his life to date give him professional, hospital and administrative experience and ability, possessed by few, in the work he now undertakes. "Still waters run deep," and under his quiet, retiring manner will be found the force which, when added to the foregoing qualifications, will fill, in our opinion, the essentials we spoke of in a former number. We desire to wish our old friend the fullest measure of success in this new situation, feeling that with the hearty, zealous co-operation of both management and staff, he will be quite able to fill the position, so long and so ably filled by Dr. O'Reilly—which will be none too easy to fill acceptably on account of his long tenure of office. At the informal reception given to Dr. Brown on the evening of the 26th of July by the trustees, it was pleasant to see the real, genuine feeling of good-will emanating from both management and staff. We wish him all the good success we know he deserves.

A large deputation of medical men, headed by Dr. D. Campbell Meyers, recently had an audience with Premier Whitney, of Ontario. It waited on the Premier and his colleagues in the Government at the instance first, of the Toronto Clinical Society, and second, at the instance of the larger organization, the Ontario Medical Association. The object of the deputation was explained by Dr. Meyers, who first brought the matter to the attention of the Toronto Clinical Society, and subsequently laid it before the Ontario Medical Association. It was to the effect that the profession in Toronto and in the Province desired that wards or pavilions be set apart or constructed in general hospitals for acute mental cases, which plainly should be treated in hospitals and not in so-called asylums. Others who addressed the Premier, were Dr. McPhedran, Dr. J. F. W. Ross, Dr. J. L. Davison, and Dr. N. A. Powell. Mr. Whitney listened carefully to each speaker and promised that the matter would have the very best attention of his Government. His promise may be relied on. The management of the Toronto General Hospital are considering the

advisability of setting apart the residence of Dr. O'Reilly for this purpose. Incidentally, there was one thing of which the Premier did not seem to catch the exact drift. We refer to the word "asylum," as a distinguishing title for institutions designed to treat people adjudged insane. Apparently the Premier thought that to change the name "asylum" to "hospital" for the insane was lacking in force and meaning, and that no good end would be attained thereby. This was not to the point, but rather wandered from it. We do not think the profession requires any such change, but rather that these institutions be classed as hospitals alone, without any reference whatsoever to the illness which brought their unfortunate inmates thither. Why should there be any difference in the name of an institution whose avowed purpose is to look after the mental health of an individual? He is just as much entitled to be cared for in a "hospital" as a man with pneumonia or typhoid fever. Homes for incurables and asylums for insane are equally obnoxious.

The Toronto City Council and Mr. J. Ross Robertson have each contributed \$200,000 and \$60,000, respectively, to the Toronto General Hospital and the Victoria Hospital for Sick Children. One is a city, the other a citizen, but the citizen gives nearly one-third as much as the corporation for hospital purposes. Mr. Cawthra Mulock gave \$100,000, one-half what the city gives; and yet there was some opposition to the city giving. Not probably to the actual giving, but more particularly the manner and the method of giving. There were adherents of the other hospitals, who, seeing the General was going to get something good from the city, desired to share in the prize, forgetting that a good institution long in harness before them, representative of the city, was deserving under the existing circumstances. Why could these not possibly have remained quiet, and let their rival—if they deem it such—profit. As Controller Hubbard would express it, "a good institution brings good in its train." Perhaps, having been generous to the General Hospital, who knows but that the city fathers might remember the others later on. At any rate it is unseemly and very short-sighted, not to say, picayune, for even so-called rivals in hospital work, to attempt to offset favors to a favored institution.

The Ontario Medical Council has decided not to issue proceedings any more, but to have a stenographic report made and filed away to get dust-covered. In case the report ever has to be consulted, it is there. Now, the medical profession throughout this province is entitled to know something about the proceedings of its Parliament. Certainly, to get those proceedings in pamphlet form six months after the annual meeting was not very up-to-date reading. The medical councils of the provinces are important bodies. We in Ontario take some interest in what our Council does; and some like to know what is going on in the other provinces. The public press cannot be relied on to give us this information, as they generally employ "kids," who think more of the parsley than the meat, and so write up the proceedings. We trust provision will be made to have reports supplied for the medical press. In the expense of this, no doubt the medical press and the Council will co-operate.

To us it appears from the over-crowded condition of the medical profession, that the time has come, when in order to elevate the standard of medicine, supplemental examinations should be relegated to history. This does not necessarily advocate a higher standard, but it does advocate the possession of knowledge in all departments, so that students may not pass through the ordeal of examinations piecemeal. There is an examination set; and if a student fears one subject, he neglects it and comes up for that alone six months later. The practice is an unjust one.

Dr. William S. Fischer, of Waterloo, Ontario, is contributing a series of articles, entitled "Master Minds of Medicine," to these pages, the first of which appeared in our July issue and was upon William Harvey. It is a clear, interesting and entertaining production, of one who in his day did a great deal for the science and art of medicine. As we cannot too often keep before us the example of the great men of the past whose careers furnish enduring precept even as late as these days, therefore, it is, that articles such as this appeal to the young as they do to the old and supply alike information, pleasure and profit. The next one dealt

with in a near issue, will be Sydenham, the father of clinical surgery ; and we feel sure that our readers will appreciate this as well as the one which has already been published. Dr. Fischer is the author of a volume of verse, "Songs by the Wayside," which give expression to beautiful and lofty ideals, and which give splendid promise that their youthful composer will win for himself a name in Canadian literature, a literature, which as yet, is but in its formative period. We desire to express our indebtedness to Dr. Fischer for the privilege and pleasure of publishing these contributions from month to month from his pen.

Two of Canada's leading surgeons have lately been honored with the degree of LL.D. from the University of Edinburgh, to celebrate whose fourth centenary, both crossed the "pond" a short time ago. Canadian medicine will acknowledge the high compliment and honor done to Professor Irving H. Cameron, of the University of Toronto, and to Professor Francis J. Shepherd, of McGill University. Both stand in the front ranks of their profession. Both have attained to the highest honor in the gift of their confreres of the Canadian Medical Association. Both are gentlemen of intellectual capability, of culture and of refinement. We wish to tender both Dr. Cameron and Dr. Shepherd our very warmest congratulations.

News Items.

CANADIAN.

DR. E. M. MIDDLETON, of Fergus, left for London, Eng., on June 23rd.

DR. P. MCGIBBON has returned to Bracebridge and is assisting Dr. Williams.

DR. B. J. BRANDISON has moved from North Dakota to Winnipeg, where he will practise in the future.

DR. F. F. WESTBROOK, professor of bacteriology in the University of Minnesota, has been visiting in Winnipeg.

DR. D. G. REVELL, of the University of Chicago staff, formerly of Paris, is spending his vacation in Canada.

DR. MULLIGAN has gone to McKellar as a medical practitioner since the removal of Dr. Burrows to Parry Sound.

DR. BARNES, of Pinkerton, has secured the position of assistant to Dr. Hobbs in the Homewood Sanitarium, Guelph.

DR. JAMES RAE arrived from Toronto recently, and is at present assisting Dr. Foote, Rosseau, in his growing practice.

THE Ontario Government has appointed Dr. A. J. Hunter, of Orangeville, an Associate Coroner for the Counties of Dufferin and Peel.

The following are the staff of St. Michael's Hospital for the ensuing year: Drs. G. Chalmers, F. T. Sheehan, Leo Killoran and A. O. Jackson.

The deaths from tuberculosis in Montreal during the past four years were as follows: 1900, 692; 1901, 647; 1902, 664; 1903, 633; 1904, 574.

The death is announced of Dr. J. A. Duchesneau, former Governor of the St. Vincent de Paul Penitentiary, at the age of seventy-three years.

DR. MASON, of Ottawa, an honor graduate of the Medical Faculty of Queen's University, Kingston, is associated with Dr. F. S. Comfort, Campden.

Dr. Swale Vincent, Professor of Physiology in the University of Manitoba, is delivering a course of lectures on the ductless glands at the University of London.

Dr. Donald McMaster, of Sydney, Australia, has been inspecting Children's hospitals in the United States and Canada in the interests of a new children's hospital in Sydney.

DR. W. GIBSON, late of Kingston, is the latest addition to the professional ranks in Smith's Falls. Dr. Gibson has been for some time house-surgeon in the Kingston General Hospital.

DR. REID, Wyoming, has leased the office of the late Dr. Harvey, where he has entered upon the duties of his profession. He formerly practised in Watford and has been a successful practitioner for some years.

DR. C. C. FIELD, formerly of Cobourg, Ont., is meeting with deserved success in the West, and we congratulate the doctor on his recent appointment to the position of Professor of Materia Medica and Therapeutics to the Winnipeg Medical College.

DR. BOWLES, of Woodhill, left recently for London, Eng., where he will take a post-graduate course during the summer months. During his absence his practice will be taken by Dr. Jackson, who has been Superintendent of Home for Incurables, Toronto, during the last year.

The Bill to amend the British Medical Act, 1886, has passed the House of Lords. Lord Strathcona in moving the second reading explained that the provisions amended the Act of 1886 without in any way interfering with the principle therein established, which enabled reciprocal arrangements to be entered into either with the Provincial or Federal Governments of Canada.

The British Columbia Medical Association met in Vancouver on the 18th and 19th July, under the presidency of Dr. W. D. Brydone Jack, Dr. H. E. Langis acting as Secretary. The following programme was disposed of: Paper on "Infection and Immunity," by Dr. J. C. Fagan; "An Unusual Case of Intestinal Obstruction," by Dr. R. E. McKechnie; "Clinical Reports with Exhibition of Cases," by Dr. Glen Campbell; "Further Experiences

in the Treatment of Pelvic Disease in the Female Insane" by Dr. Ernest A. Hall; "Import of Relaxed Abdominal Wall in its relation to Diseases of the Digestive System," by Dr. Joseph Gibbs, discussion opened by Dr. Bolton; "An Epitome of a Year's Hospital Work in London, Eng.," by Dr. W. T. Hayes; "On Septic Tanks," illustrated, by Col. T. H. Tracy, M.C.Soc.C.E., discussion opened by Dr. F. T. Underhill; "Vancouver Hospital," illustrated, by G. W. Grant, Architect, discussion opened by Dr. S. J. Tunstall; "Cases of Bilharzia Hematobia in British Columbia," by Dr. R. E. Walker; paper by Dr. J. Hogle; "Case of Congenital Absence of Rectum and Exhibition of other cases," by Dr. Newton Drier; "Observations on Tuberculosis in New Zealand," by Dr. William Stephen; and addresses by visitors of note from American Medical Association Convention at Portland, including Dr. W. J. Mayo, Rochester, Minn. There was an excursion to the Asylum, New Westminster, arranged by the kindness of Dr. Charles E. Doherty, Medical Superintendent.

BRITISH AND FOREIGN.

CANCER RESEARCH AT THE MIDDLESEX HOSPITAL.—The fourth report of the Cancer Research Laboratories of the Middlesex Hospital has just been published under the editorship of Dr. Lazarus-Barlow. The majority of the papers are statistical and are based on the extensive records of the hospital, which alone, among the general hospitals of the metropolis, makes special provision for cases of cancer. Dr. Lazarus-Barlow contributes a paper on Cancer Ages, based on cases admitted to the hospital from 1746 to 1904. The age given is that on admission and probably approximately corresponds with the age at which the patient first observed the growth. The total number of cases comprises 2,073 males and 4,659 females. The following conclusions are drawn:

1. The mean age of the males was 55.2 years; of the females 49.9.
2. Cancer of the alimentary tract is about seven times as common in males as in females, but this difference gradually and uniformly diminishes as the seat of the primary growth is lower in the tract.
3. The mean age of liability of males to cancer of the alimentary tract is 55 years; that of females 52.5 years; but in cancer of the liver and gall bladder the mean age of female patients is higher than that of males.
4. In males 80 per cent. of all cancer affects the alimentary tract; in females 80 per cent. affects the generative organs, including the breast.
5. In both sexes the generative system tends to be affected earliest and the cutaneous system latest; the alimentary system occupies an intermediate position.

6. Cancer before the age of 35 is commoner in women than in men, and in both sexes shows a tendency to affect the generative tract. The second paper is on the sites of cancer and is contributed by Dr. Lazarus-Barlow and Dr. Gordon Taylor. An attempt is made to ascertain whether the general increase in cancer affects every organ or not. The statistics appear to show that an increase in the mortality from cancer has occurred in the alimentary tract, stomach, colon, and rectum and anus in both sexes; in the lip, tongue, floor of the mouth, cheek, and esophagus in males; and in the uterus and breast in females. On the other hand, there was a diminution in mortality from cancer of the lip, tongue, floor of the mouth and vulva in females, and from rodent ulcer and cancer of the skin in both sexes.—*J. A. M. A.*

Special Selection.

SOME NEGLECTED SYMPTOMS OF NON-SURGICAL GYNECOLOGY.

BY JOHN A. HALE, M.D., ALTO PASS, ILL.

It is but a lack of inquisitiveness on the part of the general practitioner that has brought about a condition of things in gynecological practice that warrants the assertion so often reiterated in current surgical literature, that "Modern gynecology belongs, practically, to the field of operative surgery."

The successful physician, with a characteristic personality of inquisitiveness, can boldly refute such assertions and substantiate his refutation by the thankfulness of a happy clientele of woman-kind released from a thralldom of suffering by his inquisitiveness.

Diseases of the female organs of generation are more common than any but a physician can suppose, and surgical gynecology has become a necessity from an early neglect of backaches, spineaches and headaches, followed by irregular, scanty painful, delayed or suppressed menstruation during girlhood. The inquisitive physician rushes not into instrumental interference, nor sends such patients to certain specialists for officious mutilation, but first a volley of seek-further questions at the patient which elicit the information that such patient passed her days of approaching puberty in an over-crowded public school, or, worse,

in a jail-like boarding school for young ladies, adding fuel to the fire of antagonism between brain and indigestible foods the body growth lags behind, leaving the imprint of the unequal struggle on the reproductive organs.

With poorly established sexual functions and a perfect disregard for menstrual week, the undeveloped woman leaves school to plunge into a vortex of social dissipation, followed later by an assumption of wifely duties and responsibilities toward a husband who has seen only her bewitching face and not her frail body.

It is hard to fathom the reason why so many such wives at first tolerate marriage obligations and latter resent and loath them when the poor, broken-down sexual system refuses longer to continue functions for which it was made, but carelessly unfitted?

Is not such a condition a cause for dread of maternity on the part of the woman which often leads to criminal abortion, with all its attendant sequences?

To the inquisitiveness of the successful physician must be added a power of positiveness, wherein he may teach both the husband and the wife something they should know before their carelessness brings about these later conditions which require the necessity of mutilation.

The woman suffering from continued nervousness, weariness, wakefulness, headache and backache needs the services of a physician, and not a surgeon. Likewise, such symptoms as scanty, painful, delayed and suppressed menstruation should be under the care of a physician and not an over-zealous surgeon. Prolapsus, leucorrhœa, ulcerations, chronic inflammations, congestions and enlargements are purely the outcome of neglect of just such symptoms as named. The first-named symptoms are but the assertions of Nature that she is tired of the unequal load, and if not relieved she will resist no longer, come what will.

A judicious investigation of seemingly insignificant details and close applications to the technique of examination in the early stages of such cases will reveal constipation, congested mucus lining of the vagina, and irritable bladder, with diffuse hyperemia of all pelvic structures and loss of organic or respiratory rhythm; that subtle thrill which extends over the whole body synchronous with the beating of the heart and motion of the lungs, plainly perceptible to the trained eye looking upon healthy pelvic viscera. Quick must be the relief of this engorgement, with its pernicious nutrition of the parts and concomitant accumulation of excrementitious matter.

First and foremost in the treatment of this condition comes the remedy of absolute rest to the parts, and then, but no less important, is the removal of improper dress and the re-establishment of

abdominal breathing to restore proper circulation in the pelvic viscera. Treatment for the removal of constipation is self-suggestive; rest we can enjoin upon our patient, and abdominal breathing we may advise, but all animal cells, whether single or united in tissues or in organs, consume a certain amount of matter, and those chemical changes by which material brought to the tissues and organs by the blood and transformed into other products through the activity of the living cells, which liberation of life energy, must be maintained by a continued inherent thrill or respiratory rhythm and a constant supply of chemical products. This same chemical agent must not induct a destructive blood metamorphosis, but supply food for the debilitated vitality. For such action we must seek some combination of the old and well-tried remedies of ergot and apium, with acceptable hemagogues.

The questionable action heretofore exhibited by various preparations of such remedies has been due, as clinically proven, to the component resinous compounds of the apium in the combination. In ergoapiol (Smith) the active principles of apium have been isolated and with ergot made to form an acceptable and agreeable compound with invigorating hemagogues, proving of unquestionable benefit in such conditions as mentioned in this article.

When the general practitioner awakens to his responsibility, we will have less of these conditions, a continuation of which invariably produces a capillary varicosis, with its train of evils, manifested more frequently by copious and disagreeable discharges called leucorrhœa. But even as late as in this last-named condition the physician will learn that ergoapiol (Smith) judiciously, consistently and determinedly administered, will prevent much needless mutilation by effecting a cure.

Pre-emption of space for case reports on this subject would scarcely be justifiable, when each reader may cluster the facts as herein stated around well-known principles and evolve therefrom a rational solution of treatment for diseases involving the female genitalia.—*Medical Herald, of St. Joseph, Mo.*

Obituary.

WALTER WILLIAM MEACHAM, M.D.

Mr. Uriah Wilson, M.P., received a telegram recently announcing the death of Dr. Meacham, at Warsaw, Ont. His sudden demise will be a surprise to his many friends and admirers in Napanee and surrounding country, who were unaware of his illness.

Walter William Meacham, M.D., was born at Colborne, Ont., Sept. 22nd, 1841, studied medicine at Dr. Rolph's Medical School, Toronto, and graduated in 1869. In 1870 he married Maggie, only daughter of Geo. Campbell, of Chesley, Ont., and later practised his profession at Odessa. He was first sent to the Legislative Assembly at the general election in 1886, and re-elected at the general elections of 1890 and 1894, as the Conservative candidate. About six years ago the Dr. removed to Warsaw, where he practised his profession.

Dr. Meacham's grandfather was Dr. Seth Meacham, a native of the New England States, and came to Canada about the beginning of last century. He practised medicine in Belleville for many years.

Dr. Meacham was a man of sterling qualities and strict honor, and was able to redeem the old County of Lennox for the Conservatives when it was deemed by many hopelessly lost. He was generous to his opponents, and unlike most politicians, had not an enemy that we ever heard of. Men of the Doctor's high standing are none too plentiful and his removal by death will be a distinct loss to the country and the community in which he had located so recently. The bereaved widow and children will have the sympathy of their many friends here.