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APPENDICITIS.*

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It was with much pleasure that I accepted the invitation to read a paper on some surgical subject at this the first meeting of the newly-formed British Columbia Medical Association. Appendicitis (so called) I have chosen for the subject of my paper.

The disease is exceedingly common, causing, according to some authorities, 95 per cent. of all cases of general peritonitis. It has a large mortality, its exact nature is of only recent recognition, and at the present time the views concerning the treatment of the affection can only be said to be in a state of experiment, or, at any rate, a matter open to much discussion and controversy.

So far no paper has, to my knowledge, been written on this subject by any member of the medical profession in British Columbia. Current medical literature, particularly periodical literature, has been replete with articles by many writers on the subject. The views expressed as to treatment have been most diverse and conflicting, and the reader, if governed by what he peruses, and not by personal experience, must be in great perplexity as to the proper course to adopt when he meets the disease at the bedside. It is only by the accumulated experience of individuals that definite and uniform views of treatment can be formulated, and it is more or less the duty of those possessed of clinical knowledge of the disease to place the same on record. I therefore offer no apology for speaking on a well-worn subject.

In "Allbutt's System of Medicine," and in "Treves' Surgery," two of our most important and recent medical publica-

* Paper read at first meeting of the British Columbia Medical Association.

tions, articles appear on what Mr. Treves, the author, prefers to term perityphlitis—in reality appendicitis. The article in Allbutt's "System of Medicine" has been re-issued as a monograph by the author, thereby emphasizing and re-iterating the views expressed.

I confess I have been astounded at the views advanced in these articles as regards treatment and other points, and after laying before you the series of cases which have come within the range of my own knowledge and operation, I will make some criticisms and comments on these two articles, as in this way I shall perhaps more plainly place before you my own views concerning this disease.

The cases which comprise my list have been operated on in St. Joseph's and the Jubilee Hospitals of Victoria. In no single instance have I refused to operate because of the desperate and apparently hopeless condition of the patient. The cases constitute, without selection, all those which have come to my notice from 1893 to the present time. It is not my intention to read an exposition on appendicitis, but rather to give my personal impressions on the subject.

Analyses of Cases.—The list shows that I have operated on 105 cases of appendicitis, with 99 recoveries and six deaths.

From a surgeon's point of view there are five distinct classes of cases in the accompanying list, viz.:

Class 1.—Abscess cases, the pus lying immediately in contact with the peritoneal peritoneum, walled off from the general peritoneal cavity by adherent intestines and omentum. These cases require only direct incision as a rule, washing out with some antiseptic fluid and drainage, no attempt being made, as a rule, to remove the appendix. Of these there were six cases, five of which recovered and one died. The death was No. 15 of the series, readmitted as No. 24, as an abscess case.

Class 2.—Cases which some surgeons, for convenience sake, term *post-cecal* abscess cases. The abscess is generally in this position, though in one case of the series it was in the pelvis in contact with the right ovary and tube, and in another case the pus was walled in by the side of the cecum by small intestine and omentum—intraperitoneal abscess would be a more correct term to use, though not strictly so, but serving to distinguish this class of case from abscess in contact with the parietes. In operating on this class of case the general peritoneal cavity is of course opened, the abscess is, as a rule, situated behind a much thickened and inflamed cecum—the cecum I have always found empty—the appendix lies in the abscess, is of course the cause of the abscess, and I have always found it perforated and

generally gangrenous. These form a large proportion of the tumor cases—the sausage-shaped tumor of former times—the cases which were considered before the days of abdominal surgery to be impacted, inflamed cecums. Of this class my list contains thirteen cases. The appendix was removed in every case, and all recovered.

Class 3.—Acute non-perforating cases, each presenting different pathological conditions as detailed. Many of these cases presented conditions of the appendix which no doubt would have been temporarily recovered from; in many cases, on the other hand, with slight symptoms, hardly any acceleration of pulse, and only slight elevation of temperature; or again, with all the symptoms positively subsiding, an appendix on the verge of perforation, or with gangrenous interior or stenosed and full of septic pus, has been exposed as the result of operation, making one only too thankful that the damaged organ has been looked at, and the condition of affairs plainly and beyond all doubt threatening the life of the patient demonstrated, and at the same time made amenable to common-sense treatment. Of this class there were 42 cases, with 41 recoveries and one death—No. 22. I believe in this case I failed to remove the whole of the damaged portion of the appendix, and the necrotic process extended to the cecal wall afterwards, hence the failure to save this case.

Class 4.—The general septic peritonitis cases from perforation of the appendix into the general peritoneal cavity with no limiting adhesions, the class of cases in which all surgeons expect to have fatal results, death occurring not so much from the peritonitis but rather from general septicemia from the absorption of the septic products of the peritoneal inflammation.

Beyond all doubt the chief factor which determines whether the patient will live or die in such a case depends upon the *time* at which operation is performed after perforation has occurred. I am inclined to think also that the character of the fluid found in the peritoneal cavity greatly influences the result. My opinion is that if the fluid be purulent, other conditions being equal, there is a fair chance of recovery. I think the condition of the appendix determines the character of the peritoneal exudation, and in this class of peritonitis case I have most frequently found the appendix perforated from ulceration of its interior. On the other hand, where the peritoneal cavity is full of thin, dirty-colored, stinking, serous fluid, the outlook is exceedingly bad. This condition of things I think will be found most frequently in connection with a perforated gangrenous appendix. One can easily imagine the thinner fluid more easy of absorption and containing more deadly toxins than that of a more purulent character. Of

the general septic peritonitis class, my list contains 15 cases, four of which proved fatal and eleven of which recovered.

In the successful cases, operation was performed in 4 on the day perforation occurred, in one case on the second day after perforation, in four cases on the third day after perforation, and in the remaining two cases on the fourth day after perforation.

The fatal cases are Nos. 18, 29, 48 and 20. In the first three operation was performed on the fourth day after perforation, in the remaining cases on the seventh day after perforation.

In the fatal cases the patients were in a practically hopeless condition when operated upon, and surgical interference was instituted with the distinct understanding that it was a forlorn hope, nevertheless the only hope that existed.

I am aware that many surgeons refuse to operate on such cases, some think it throws discredit on surgery to do so; it certainly spoils a surgeon's record for success. To my mind there is a better and higher view which should govern our action; who is to draw the dividing line between cases which are absolutely hopeless and those in which an operation affords some, even if a very small, chance of life. If the chances of recovery are one in a hundred or less, I think the conscientious surgeon can have no hesitation in deciding what is his duty; he must give his patient that chance.

The plan of procedure for cleansing and draining the peritoneal cavity has been elsewhere mentioned.

Class 5.—Interim cases, that is, where after one or more attacks the operation for the removal of the appendix is performed during the quiescent period. In this class of case the appendix was invariably found adherent, and more or less difficult of re-removal, sometimes also difficult to find. My list contains 29 of these cases. The appendix was removed in each, and all recovered.

The name appendicitis, as applied to the disease under consideration, is certainly far from indicating its true character. While I would suggest no change, for the reason that the term is so generally used and understood, the term of "Disease of the Appendix Vermiformis" would be more correct.

Etiology and Morbid Anatomy.—In my opinion, an appendix which is free from any adhesions, but swings about freely in the peritoneal cavity, with its lumen unobstructed in any manner, will give its possessor, while in that condition, no trouble. A catarrhal condition of the mucous lining of the appendix is without doubt frequently the first step in producing this disease. Examination of the appendices removed at my operations demonstrates that stenosis of the lumen of the organ is a common patho-

logical factor, such stenosis being in some cases produced by narrowing or obliteration of its canal proper, as in ordinary stricture of a mucous-lined tube, or the canal may be blocked by an enterolith or by acute flexion, or by twisting, or by being coiled up or adherent in some distorted condition, or by shortening of the mesentery of the organ at some point, producing deformity. All these conditions mechanically interfere with a free circulation between the appendix and cecum, and accumulation and retention of the contents of the part result, without doubt very common factors in producing disease of this organ. Ulceration of the lining of the organ, frequently terminating in perforation—such ulceration I have found to be caused by the pressure of an enterolith, in others at the point of an acute flexion of the appendix; interference with the blood-supply of the part through septic thrombosis of its blood-vessels appears to be the most probable cause of gangrene of the organ. Frequently I have found two or more of these conditions in the same appendix. Accompanying the diseased condition of the appendix many of my cases showed varying degrees of typhlitis, the inflammation of the cecum being an extension and the result in all cases of the appendix trouble.

Appendicitis for practical surgical purposes is of two kinds, perforating and non-perforating. Perforating cases again are of two main classes: First, either there are limiting adhesions of some character, and the escape of the contents of the organ produces abscess, which is walled in by such adhesions, and the general peritoneal cavity remains at first intact. This abscess cavity, as shown by some of the cases detailed, may rupture, and infection of the whole peritoneal cavity result.

The second class of perforating cases is where no limiting adhesions exist, and the contents of the organ escape into and foul the general peritoneal cavity, giving rise to general septic peritonitis.

In non-perforating cases, the organ may be adherent or not, and is generally found in one of the abnormal conditions previously alluded to.

Symptoms.—The symptoms indicating the presence of appendicitis, in my experience, vary much in severity; in one class of case the only complaint may be of some colicky pain recurring at intervals, accompanied by tenderness over the appendix, and attended with little or no constitutional disturbance. On the other hand the pain may come on suddenly and be of very great intensity, felt chiefly around the region of the umbilicus, sometimes radiating up towards the liver and higher, or downwards towards the thigh and neck of the bladder. The symptoms may

be accompanied by vomiting, acceleration of pulse, and elevation of temperature; abdominal tenderness may be general. The most acutely painful point on pressure, however, will still be over the region of the appendix. The patient is generally severely ill from the first, and is in a condition of general mental perturbation and anxiety. Between these extremes all grades of severity of attack are met with.

Diagnosis.—Pain and tenderness on pressure, with resistant belly-wall, whether there be tumor or not situated at McBurney's point, accompanied by more or less constitutional disturbance, indicates, as a rule, the presence of some pathological condition of the appendix—that is, so-called appendicitis. The main sources of error, in my experience, are in cases where pain occurs in the right iliac region in neurotic and hysterical women; exactly why these women thus complain I am sometimes at a loss to understand. By watching these cases, and appreciating the character of the patient, a mistake is to be avoided. Another source of error is disease of the uterine appendages on the right side; a careful inquiry into the history of the case as to previous tubo-ovarian trouble, with bi-manual examination of the patient under ether, will clear up any doubt as to the differential diagnosis. Typhoid fever, again, has caused perplexity. Taking into account the gradual method of invasion of enteric fever, as compared with that of appendicitis, the presence or absence of symptoms characteristic of typhoid, the absence of the resistant abdominal wall occurring in appendicitis, substituted for which one has a normally soft condition of the abdominal parietes, with possibly gurgling and almost certainly other points of obscure abdominal tenderness, a mistake should not occur. The pain caused by sudden and violent dislocation of movable right kidney or from passage of renal calculus may also be mentioned as cases which may possibly cause some hesitation in making diagnosis.

Prognosis.—This will depend upon the character of any given case, whether it be one of the appendix perforating into the general peritoneal cavity or perforating with limiting adhesions; or again, whether the appendix remains without perforation; but chiefly the prognosis depends upon the stage at which the disease is seen and recognized, and upon the treatment adopted. If the case belong to either group of the perforating class, is seen within six, eight, or twelve hours from the occurrence of perforation, and proper treatment is adopted, the prognosis is good. I have lost no cases under these circumstances. If the case is a non-perforating one, is seen early, and what I consider appropriate treatment is carried out, the prognosis is excellent. On the other hand, if two or more days have elapsed since perforation of the

appendix into the general peritoneal cavity, and as a consequence general septic peritonitis has existed for this length of time, with general septicemia as an inevitable result, death will occur in a large proportion of such cases, as long as we have no more potent means of treatment than are known at the present time.

In the class of case which we are called upon to treat in the interim, again, by treating the case on what I consider the only scientific plan, the prognosis is excellent. I know of no abdominal disease of like gravity in which the life and health of the patient are so thoroughly in the hands of the medical man as is the case in the disease under consideration.

Treatment.—The stereotyped expectant plan of treatment by starvation, absolute rest in bed, and perhaps ice as an applicant to the parts, *waiting, in fact, to see what will turn up in the shape of catastrophe*, I mention only to condemn. When opium, or its alkaloid, morphia, is exhibited in addition to the foregoing, I can only repeat what has been more forcibly stated by many others, viz: that if you treat a case of this disease with opium, etc., you mask the symptoms and produce for a time a sense of false security and comfort for your patient; you no longer know what is his real condition; you treat a symptom and not the disease, with the result that you too often find yourself face to face with calamity in the death of the patient. Osler, a physician *par excellence*, wisely says: "There is no medical treatment of appendicitis." All who have seen this disease in the operating theatre to the extent that I have must agree absolutely with the dictum of this eminent member of our profession. When one considers the character of the disease, its, to a great extent, mechanical attributes; when one sees the condition of the appendices revealed by an incision through the abdominal wall, how simply and safely they can be remedied by mechanical means, and how impossible it would be to effect any improvement in the conditions existing by any form of medicinal or medical treatment, one is driven inevitably to the conclusion that the only scientific and effectual treatment of the various affections of the appendix and their consequences, is surgical. I consider the statistics, etc., published by physicians concerning the expectant treatment of this disease most misleading, disingenuous and unfair. The whole case is not stated, the recoveries are not *rures*. A damaged appendix remains damaged whether stenosed, blocked up by enterolith, adherent or what not—the so-called cure leaves the organ more thoroughly damaged than before, and in a condition which pretty well ensures further attacks, to be followed by invalidism, loss of life, etc. The statement that a person who has had a distinct attack of appendicitis will probably not have another, a statement

frequently made by physicians, *is an erroneous statement*. This assertion has been made so repeatedly that it has got to be considered as an accepted fact. I am sure more careful inquiry will prove such statement to be entirely incorrect—*the reverse is the truth*. Once a person has had an attack of appendicitis, no matter how slight, it is the very best argument in favor of the probability of a recurrence. The cause of the attack (*i.e.*, abnormal condition of the organ) is intensified by the attack; the wonder, on the other hand, is that recurrence is not inevitable—that is the rule. all argument from facts concerning the appendix goes to prove. The history of my cases coincides with these opinions. A large majority of the cases that I have treated have had many attacks, generally at the time not recognized—considered bilious attacks most frequently.

The operation for the removal of the appendix is a safe one, as proved by my cases. Danger in connection with this operation results not from the operation itself, but from delay in performing it; the operation is not the danger, the disease is the danger. If the disease is attacked early by surgical means (by this I certainly mean within the first twelve or twenty-four hours), no matter whether the case be a perforating one or not, recovery will be almost certain. Every hour is of moment to the patient. No medical man, no matter how great his acumen and experience, can in any apparently mild case of appendicitis foretell what the condition of the patient will be in twenty-four hours—the patient may be getting well in that time, or may have developed general septic peritonitis, and be dying. Did time permit I could prove this assertion by narrating at greater length some of the cases I have had under my care. In view of these facts I am an advocate of immediate operation in the treatment of this most treacherous disease. I have never had occasion to regret operating. If the case be a simple one, the operation is practically devoid of all danger, further attacks of a more dangerous character, and at a possibly more inopportune time are avoided, and the patient is cured.

If the pathological condition revealed by laparotomy is grave, then the necessity for irmediate operation is demonstrated, and the prospect of the successful issue of the case correspondingly increased.

As regards the technic of the operation for the removal of the appendix I need not say much. Some of the methods I have adopted in meeting the various difficulties have already been indicated in the recital of my list of cases. One or two points I would draw attention to, as the result of my experience. One is that after cutting through the abdominal wall, the utmost gentle-

ness should be used, otherwise a stinking septic abscess or a much damaged appendix may be ruptured into the peritoneal cavity. I generally, if there is any indication of the existence of such condition, pack round the cecum with plenty of sterilized gauze, thoroughly coffer-damming off the peritoneal cavity, and then very carefully make my search. If I come upon pus, as it oozes out I rapidly mop it up with pieces of gauze, which I throw away, frequently using thirty or forty such pieces, until I have the septic cavity emptied of pus, and comparatively clean. These are most commonly *post-cecal cases*, that is, cases with an abscess walled in by the cecum and omentum, the appendix perforated and lying in a small pool of stinking pus. I then, after removing the appendix, mop out the septic cavity with bichloride solution very thoroughly, pack it with iodoform gauze, take out my coffer-dam of sterilized gauze, and close the wound only at the ends, applying, of course, the usual antiseptic dressings.

As regards the method of treating the stump of the appendix, about which so much has been written, while I have adopted different methods, I have come to the conclusion that the only really important point is to remove the *whole* appendix, carefully going beyond where it is diseased at any rate. The method which I now adopt, and which renders the healthy or diseased condition of the appendix proper at once apparent is, after ligating the mesentery, to girdle the peritoneal covering of the organ at least one inch from the cecum, strip the peritoneal covering back like a cuff and ligature the stripped appendix close to the cecum with catgut, then cover the stump with the peritoneal cuff and ligature this; sometimes I also treat the open end of the appendix stump with the fine point of a Paquelin cautery, or pure carbolic acid; this seems to make no difference, however. I have had no trouble in any case from the stump, no matter how treated. One method recommended I cannot think safe or scientific, viz.: the inversion of the appendix into the cecum; to deprive the organ altogether, or to a great extent, of its blood supply, and then invaginate it into the cecum to slough, seems to be fraught with danger; the organ, to my mind, *must* necrose, and I should wonder at what point the necrotic process would be arrested.

As regards the general septic peritonitis cases, my practice has been as follows: If I find the peritonitis not general, but pelvic, and confined to the neighborhood of the appendix, cecum, etc., I wall the infected area off with gauze, and trust to swabbing the part thoroughly with gauze, removing all pus and debris, afterwards going over the part with sponges wrung out of bichloride solution and drain with iodoform gauze. If the whole

peritoneal cavity is infected, I swab out the pelvis and worst infected region near the appendix, remove the appendix, and then flush out the whole peritoneal cavity with hot sterilized water of temperature over 115, and drain according to the degree of peritoneal infection with either a pelvic drain or sometimes with drains in each kidney pouch, as well also tamponing the region of appendix lightly and leaving the wound freely open in the centre.

As regards operating on interim cases, I have usually found the appendix densely adherent, sometimes difficult to find, and often very difficult to get out. A method which has served me well, in cases where it appeared dangerous to remove the appendix in the usual way, has been to open up the peritoneal covering of the appendix, and then with the point of a pair of dressing forceps or blunt scissors to strip out the appendix proper from its peritoneal covering right down to the cecum, and then ligature it off in the usual manner. So far, I have removed the appendix in all my cases, with the exception of those of walls of abscesses, when the pus was in contact with the abdominal parietes, cases which only require incision, washing out with an antiseptic solution and drainage, the appendix purposely remaining untouched, which I imagine, all things considered, to be the most judicious method of treatment in this class of case.

In looking over the articles on appendicitis to which I have already referred, which appear in "Allbutt's System of Medicine" and "Treves' System of Surgery," in my opinion the author lays himself open to much adverse criticism. It has never been my fortune to read articles from the pen of an able writer which are so opposed to my own personal experience.

On pages 908 and 909, the author speaks of abscesses which relapse and sinuses following abscesses difficult to heal; to use his own words, he states: "Some of these cases of relapsing abscesses are extremely obstinate; I have known them to continue for years, now better, now worse; now healing, now breaking down, and to resist every surgical measure applied to them" (which I suppose means every measure the author has applied). He recommends the treating of these sinuses and relapsing abscesses by scraping them out and making them heal from the bottom. The author apparently fails to recognize that for the cure of the relapsing abscesses and persistent sinuses only one thing is necessary, viz.: the removal of the cause—the appendix.

On page 627 of "Treves' Surgery" the author states that if abscesses form the mortality rate is raised to between 30 and 40 per cent. In my list there were 19 abscess cases, with eighteen recoveries and one death. The difference in result depends entirely upon the treatment adopted. If the cases are operated

upon early, they are amongst the most successful and satisfactory, as my list shows; if, on the other hand, the abscess is allowed to increase, as in Case No. 85 of my series, where it contained pints of stinking pus, occupied at least a fourth of the abdominal cavity, extended from the appendix up to the diaphragm and filled the right loin; or again, if abscesses are allowed to develop to such an extent as Mr. Barker, of University College Hospital, narrates in an article appearing in the *British Medical Journal* of July 7th, 1900, where the pus penetrated the diaphragm, and in a second penetrated the lung also, one can understand a death-rate such as the author declares to be the rule. Early operation means a small abscess easily treated with success; late operation, on the other hand, means a large abscess which may have done irreparable mischief, and recovery from which may be impossible.

Again, it is stated, on page 627 of "Treves' Surgery," that "the great majority of cases of perityphlitis call for no operative treatment." The result of exposure of the appendix by my operations contradicts this assertion. As example, I refer to No. 6 of my list, where with no alarming symptoms the appendix was found gangrenous throughout, with the exception of its peritoneal covering; to Case 21, where with an apparently mild attack the appendix was found distended with pus, being blocked up by an enterolith near the cecum; to Case 52, where the appendix was also blocked up by an enterolith near the cecum, and beyond this point distended with pus. This patient had been playing tennis the afternoon before his appendix was exposed by operation. Again, I refer to Case 36, where the appendix was found on the point of perforation, no very grave constitutional symptoms attending the condition. To use an argument of a different character, I would refer to Case 23, Mrs. P., an enormously stout woman, who had one of the mildest and shortest attacks of appendicitis which I have ever recognized as such. Six weeks afterwards this lady's appendix perforated with no limiting adhesions, producing septic peritonitis. Her life was at once placed in jeopardy and was fortunately saved by prompt operation. It would certainly have been better if her appendix had been removed during the mild attack. No. 63 also, who had had a number of mild attacks, would have been better off if he had been operated upon during one of such mild attacks, than to have run the desperate chances he had to face when he was operated on after his appendix perforated and he had general septic peritonitis, from which he also was fortunate enough to recover. And so I might go on enumerating cases which are directly in opposition to the foregoing statement. I think the majority of surgeons on the North

American Continent, whether they are American or British, will agree with me that so many grave conditions of the appendix are exposed by operation, in apparently mild cases, that the safest rule to follow is to operate on all distinct attacks of appendicitis. If two series of cases of one hundred each were treated, the first by the expectant plan with operation only when matters were getting desperate, and the second series of one hundred were operated on without exception directly diagnosis was made, the results in the two series would demonstrate in the most unmistakable manner which was the wise course to pursue.

Again referring to the acute perforating cases causing general peritonitis, it is asserted on page 627, "Treves' Surgery," that "such cases are very uncommon." In my list there occurred fifteen general peritonitis cases out of 105. I do not consider the term *uncommon* by any means applicable.

Again, the statement is made: "When the evidences of abscess are present, an incision should be made into the collection as soon as possible;" but gives no adequate description as to how this is to be accomplished in the most common variety of abscess case, viz.: the post-cecal.

Again, it is stated, on page 628 "Treves' Surgery": "To excise an appendix by a plastic operation when it is situated at the bottom of a foul abscess, is not in conformity with surgical principles." If the appendix form part of the wall separating the abscess from the general peritoneal cavity, without doubt it is wise to leave it untouched; this condition constitutes, to my mind, the *only* one in which no attempt should be made to remove the organ. On the other hand, if it be found in intraperitoneal or post-cecal abscess, the commonest abscess variety, to leave the damaged appendix—the "*fons et origo mali*"—unremoved, would be about as unsurgical a procedure as to leave any dirty foreign body causing an abscess unremoved after opening it, or to leave a calculus in a man's bladder after doing a supra-pubic lithotomy.

Again, it is stated, page 628, "As a matter of fact, after an abscess has once formed very little more is heard of the appendix." As a rule this is beyond doubt correct. Many exceptions occur, however. Case 15 of my series, re-admitted as Case 24, is an illustration. The poor girl died because she still unfortunately possessed an appendix. Other cases where the appendix remained unremoved after abscess have given trouble within my knowledge; and, indeed, Mr. Treves, apparently unwittingly refers to similar cases in his article in "Allbutt's System of Medicine," where he speaks of fistula, etc., remaining after abscess cases.

Again, it is stated, page 628, that "an incision in perityphlitis is very seldom called for before the fifth day." I can only state the fact, which is beyond dispute, that had I followed any such rule the death-rate in my cases would have been appalling. If one could know that the appendix in any person in this room was on the point of perforating, or gangrenous, or blocked up and distended with pus, what would every medical man present advise? Would any one dare propose waiting five days before removing the organ? I think not. And no one can say whether such condition does or does not exist in any apparently mild attack.

In another paragraph on the same page the author writes denouncing "the reckless and unnecessary incisions made without due cause on the first two or three days of the attack." I have found the appendix perforated, gangrenous, distended with pus, and on the point of perforation, on the first day of the attack *i.e.*, the first day the patient went to bed, or consulted a medical man.

Again, it is stated in "Allbutt's System of Medicine," page 234, "The later the operation (of opening the abscess) is delayed, the more easily and directly the pus can be reached. If a very early incision become the rule, it will frequently happen that the matter cannot be reached without first opening the general peritoneal cavity, and cannot escape without its finding its way into that space." Evidently this expresses the author's ideas of when to operate on abscess in connection with a diseased appendix, and when not to do so. To my mind he is distinctly wrong in both opinions. When the pus is easily reached as he describes, the case has been allowed to develop to a dangerous extent; it is a condition to *anticipate*, and *not to wait for*, the best proof of this being Mr. Treves' declaration of from 30 to 40 per cent. mortality.

The conditions under which he condemns operation, in the latter part of the quotation, the post-cecal abscess cases, are the *most favorable* under which abscesses can be attacked. My list of thirteen successful cases, with no death in this class, proves this beyond doubt.

I have elsewhere referred to the technic which I adopt; in my hands there is no more satisfactory class, the recovery in all has been as prompt and uneventful as in the simplest variety of excision of a catarrhal appendix.

The author refers to the use of the exploring needle by American surgeons in abscess cases. I imagine that no American surgeon of the present date would adopt the use of any such instrument. Personally, I have never used an exploring needle in

LIST OF OPERATIONS FOR APPENDICITIS AT THE ST. JOSEPH'S AND JUBILEE HOSPITALS, VICTORIA, B.C. BY J. C. DAVIE, M.D.

NAME.	HOSPITAL.	REMARKS CONCERNING CONDITIONS BEFORE OPERATION.	CONDITIONS FOUND AT OPERATION.	NATURE OF OPERATION.	RESULT.
1.—M., male adult.	St. Joseph's.	Area of dullness over appendix; tumor; resonant on percussion at apex.	Large abscess walled off from peritoneal cavity.	Incision and washing out with bichloride solution; appendix not removed.	Recovered.
2.—J. C., male adult.	Jubilee.	Had had numerous attacks; tumor.	Found appendix hidden and buried in a mass of adherent intestines.	Appendix removed; case drained with iodoform gauze.	Recovered.
3.—F. K., male adult.	Jubilee.	Tumor.	Large abscess cavity walled off from general peritoneal cavity.	Washed out large enterolith; appendix not removed; drained.	Recovered.
4.—A. G., male adult.	Jubilee.	No tumor.	Appendix found adherent and bent upon itself, thickened and inflamed.	Appendix removed; wound closed entirely.	Recovered.
5.—A. G., male adult.	Jubilee.	Had had number of attacks; interim operation.	Found appendix adherent and stenosed near cecal end.	Appendix removed; wound closed.	Recovered.
6.—E. S. W., male adult.	Jubilee.	First attack; pulse normal; temperature normal; all symptoms subsiding when operated upon.	Operation revealed appendix with gangrenous interior.	Appendix removed; wound entirely closed.	Recovered.
7.—A. G., Chinaman, male adult.	Jubilee.	Area of dullness and tumor.	Incision revealed large walled-off abscess cavity.	Washed out enterolith; drained.	Recovered.
8.—Miss S., girl.	Jubilee.	Had been very ill for three days; temperature 103; pulse, 130; had general septic peritonitis.	Peritoneal cavity full of pus and septic fluid; appendix perforated; area most infected near appendix.	Large incision; appendix removed; washed out peritoneal cavity with many gallons of hot water at temperature of 115; sponged out most infected area with bichloride solution and packed with iodoform gauze; wound only closed at ends.	Recovered.
9.—H. P., girl.	Jubilee.	Very ill on admission.	Operation revealed appendix much enlarged and inflamed; great deal of peritoneal exudation; no perforation.	Appendix removed; peritoneal cavity washed out carefully; wound closed.	Recovered. (Complicated by congestion of lungs produced by ether.)
10.—F. A., male adult.	Jubilee.	Acute attack.	Appendix stenosed by being bent on itself; disintegrated beyond point of flexion.	Appendix removed; wound closed.	Recovered.
11.—Miss W., young girl.	Jubilee.	Acute attack; general septic peritonitis.	Appendix perforated; much peritoneal exudation.	Appendix removed; peritoneal cavity washed out and drained.	Recovered.
12.—J. O. McC., male adult.	Jubilee.	Tumor.	Walled-off abscess cavity.	Appendix not removed; cavity washed out with bichloride solution and drained.	Recovered.
13.—A. S. B., male adult.	Jubilee.	Acute attack.	Appendix blocked up near oecum by enterolith; disintegrated beyond this point.	Appendix removed; wound closed.	Recovered.

14.—J. B., male adult.	Jubilee.	Interim operation.	Appendix distorted by twisting and adherent.	Appendix removed; wound closed.	Recovered.
15.—G. I., young girl.	Jubilee.	Tumor.	Walled-off abscess cavity.	Washed out and drained.	Recovered.
16.—W. B., male adult.	Jubilee.	Acute attack.	Appendix found flexed by shortening of mesentry, inflamed and enlarged; distended with septic fluid.	Appendix removed; wound closed.	Recovered.
17.—P. McL., male adult.	Jubilee.	Acute attack.	Operation disclosed appendix enlarged, inflamed, adherent and bent on itself; contained enterolith.	Appendix removed; wound closed.	Recovered.
18.—W. O., male adult.	Jubilee.	Had general septic peritonitis from perforation of gangrenous appendix; operation undertaken as a forlorn hope; perforation occurred four days before operation.	Peritoneal cavity full of stinking, dirty colored septic fluid; appendix perforated and gangrenous.	Appendix removed; peritoneal cavity washed out and drained; operation too late.	Died three days afterwards from septicæmia.
19.—A. E. H., male adult.	Jubilee.	Recurrent appendicitis; interim operation.	Appendix adherent, containing enterolith; stenosed near cecum.	Appendix removed; wound closed.	Recovered.
20.—A. S., male adult.	Jubilee.	His appendix had perforated one week before admission; had septic peritonitis of seven days duration; operation undertaken as forlorn hope.	Peritoneal cavity full of stinking septic fluid from perforation of gangrenous appendix.	Appendix removed; peritoneal cavity washed out and drained.	Died same night.
21.—W. F. F. R., male adult.	Jubilee.	Acute attack.	Appendix found distended with pus and contained enterolith.	Appendix removed; wound closed.	Recovered.
22.—Mrs. H., adult.	Jubilee.	Immensely stout woman; pregnant four months.	Appendix found gangrenous; much local peritonitis and peritoneal exudation.	Appendix removed and wound drained; drain removed in forty-eight hours as discharge had apparently ceased; forty-eight hours afterwards septic fluid escaped at site of former drain; stitches removed, and on examination an area on the wall of the cecum surrounding appendix stump was found necrosed; local conditions gradually improved, but eight days after operation patient complained suddenly of suffocation and pain in her chest; she aborted and died within an hour; no <i>post-mortem</i> allowed; death possibly caused by embolism.	Died.
23.—Mrs. E. P., adult.	Jubilee.	Immensely stout; had a slight attack of pain, lasting twenty-four hours in region of appendix six weeks before date of admission; attack which necessitated operative interference came on suddenly with intense pain radiating up and down the whole of the right side of the body.	On opening abdominal cavity found appendix perforated; peritonitis in region of appendix and pelvis intensely inflamed; pelvis full of septic fluid.	Appendix removed; pelvis and infected area well swabbed out and drained.	Recovered.
24.—G. T., No. 15 re-admitted.	Jubilee.	On examination found area of fulness and tumor extending across the lower half of the abdomen to left side; very ill; suffering from septicæmia.	Usual incision; lower half of abdominal cavity full of septic pus in three apparently separate cavities; appendix perforated, adherent and gangrenous.	Appendix removed; infected area in peritoneal cavity washed out carefully and drained.	Died from shock in about three hours.

LIST OF OPERATIONS FOR APPENDICITIS.—(Continued.)

NAME.	HOSPITAL.	REMARKS CONCERNING CONDITIONS BEFORE OPERATION.	CONDITIONS FOUND AT OPERATION.	NATURE OF OPERATION.	RESULT.
25.—A. A. D., male adult.	Jubilee.	Recurrent appendicitis; interim operation.	On exposing cecum, there was apparently no appendix; on further examination of the part found appendix lashed back out of cecum and completely hidden from sight.	Split peritoneal covering; shelled out appendix proper; stump treated in usual way; wound closed.	Recovered.
26.—Mrs. R. L. H., adult.	Jubilee.	Had had several attacks; recovering from attack when operated upon.	Appendix found adherent and flexed upon itself, causing stenosis.	Appendix removed; wound closed.	Recovered.
27.—H. G. H., male adult.	Jubilee.	Tumor; acute attack.	Post-cecocol variety; appendix perforated and lying in a pool of pus; walled off from general peritoneal cavity by omentum and cecum.	Appendix removed; septic cavity cleansed with bichloride, packed with iodoform gauze and drained; wound closed at ends only.	Recovered.
28.—K. H., young girl.	Jubilee.	Acute attack.	Organ found stenosed containing pus.	Appendix removed; wound closed.	Recovered.
29.—F. W., boy.	Jubilee.	Seen and admitted into hospital the fourth day after perforation of appendix; had general septic peritonitis and was suffering from general septicemia from absorption of septic contents of abdominal cavity.	Operation directly after admission; peritoneal cavity full of dirty, stinking serous septic fluid; appendix gangrenous and perforated.	Organ removed; peritoneal cavity well washed out and drained; operation too late.	Died three days afterwards from septicaemia.
30.—Mrs. E. B., adult.	Jubilee.	Acute attack.	Operation showed appendix acutely inflamed, its tip apparently penetrated the wall of ilium.	Adhesion so dense to ilium that was obliged to shell organ out of its peritoneal envelope to avoid injury to intestine; wound closed.	Recovered.
31.—G. E. W., adult.	Jubilee.	Interim operation.	Appendix found adherent and distorted.	Appendix removed; wound closed.	Recovered.
32.—F. H., adult.	Jubilee.	Small tumor; acute attack.	Post-cecocol variety; appendix in pool of pus behind cecum; walled in by cecum, assisted by omentum.	Appendix removed; septic cavity cleansed, packed with iodoform gauze and wound left open in centre.	Recovered.
33.—W. B., adult.	Jubilee.	Acute attack.	Appendix found enlarged and stenosed near cecum; contained enterolith; also pus.	Appendix removed; wound closed.	Recovered.
34.—M. R., girl.	Jubilee.	General septic peritonitis.	Abdominal cavity full of septic fluid; appendix perforated.	Appendix removed; peritoneal cavity well washed out and drained.	Recovered.
35.—J. R., male adult.	Jubilee.	Admitted fourth day after perforation; desperately ill; general septic peritonitis.	At least two pints of stinking septic pus in pelvis and general septic peritonitis; appendix perforated.	Appendix removed; pelvis swabbed out, peritoneal cavity well washed out and drained with three drains, one in each kidney pouch and one in pelvis.	Recovered after hard fight for his life.
36.—D. W., girl.	Jubilee.	Acute attack.	Operation revealed appendix very much enlarged, inflamed and ulcerated; on point of perforation.	Appendix removed; wound closed.	Recovered.

37.—E. R., girl.	Jubilee.	Tumor : acute attack.	Post-occal variety ; appendix perforated and lying in pool of pus, walled off by fecum.	Appendix removed ; sponged out septic cavity ; dirty area drained.	Recovered.
38.—C. S., girl.	Jubilee.	Acute attack.	Operation revealed appendix distorted containing enterolith.	Appendix removed ; wound closed.	Recovered.
39.—R. W., adult.	Jubilee.	Interim operation ; had had number of attacks ; getting more serious.	Appendix found distorted and adherent.	Appendix removed ; wound closed.	Recovered.
40.—W. G., male adult.	Jubilee.	Interim operation.	Appendix found hidden and buried amongst intestinal adhesions, exceedingly difficult to find and remove ; much bleeding from adhesions.	Bleeding area tamponed with iodoform gauze ; wound only partially closed.	Recovered.
41.—C. A. R., male adult.	Jubilee.	Tumor half way between ribs and anterior superior spinous process of the ilium.	Post-occal abscess from perforation of appendix.	Incision over centre of tumor ; appendix removed ; abscess cavity thoroughly well cleansed and swabbed with bichloride ; packed with iodoform gauze ; wound stitched only at each end.	Recovered.
42.—M. C., little girl.	Jubilee.	Acute attack.	Appendix stenosed and acutely inflamed, distended beyond point of stenosis.	Appendix removed ; wound closed.	Recovered.
43.—Miss B., adult.	Jubilee.	Acute attack.	Appendix found acutely inflamed, enlarged, curled up like a snake and adherent.	Appendix removed ; wound closed.	Recovered.
44.—Mrs. C., adult.	Jubilee.	Acute attack.	Appendix found stenosed from flexion, enlarged and adherent.	Appendix removed ; wound closed.	Recovered.
45.—Mrs. S., adult.	Jubilee.		Appendix removed during operation for removal of diseased fallopian tubes, as appendix was stenosed and distended beyond this point.	Wound closed.	Recovered.
46.—Mrs. G., adult.	Jubilee.		Appendix found adherent and distorted, evidently from old appendicitis.	During operation for removal of uterine appendages, appendix removed ; wound closed.	Recovered.
47.—W., male adult.	St. Paul's, Vancouver.	Interim operation ; had had a number of attacks.	In this case the appendix was abnormally situated ; was only found by extending usual incision up to edge of ribs ; cecum under the upper edge of incision ; appendix, which was very long, ran backwards and downwards towards aorta.	Appendix was stripped out of its peritoneal envelope and removed ; wound closed.	Recovered.
48.—Miss L., girl.	St. Joseph's.	Perforation of appendix had occurred four days before admission ; had general septic peritonitis ; temperature, 103 $\frac{1}{2}$; pulse, 148 ; patient practically dying ; operation undertaken as forlorn hope by request of parents.	Appendix found perforated and gangrenous ; peritoneal cavity full of thin, dirty colored, stinking septic fluid.	Appendix removed ; peritoneal cavity well washed out and drained.	Died same evening.
49.—A. F., male adult.	Jubilee.	Had had many attacks of appendicitis unrecognized ; tumor.	Operation revealed appendix hidden in a mass of adherent intestines.	Appendix removed with difficulty ; wound closed.	Recovered.

LIST OF OPERATIONS FOR APPENDICITIS.—(Continued.)

NAME.	HOSPITAL.	REMARKS CONCERNING CONDITIONS BEFORE OPERATION.	CONDITIONS FOUND AT OPERATION.	NATURE OF OPERATION.	RESULT.
50.—J. H., male adult.	St. Joseph's.	Had had many unrecognized attacks; perforation occurred in the morning before admission.	Area near appendix intensely inflamed; appendix perforated and found adherent low down in pelvis.	Appendix removed; pelvis and infected area swabbed out and drained.	Recovered.
51.—Miss H., girl.	St. Joseph's.	Had had many unrecognized attacks occurring every six weeks or two months; present attack most severe experienced.	Appendix found acutely inflamed, enlarged and adherent to cecum.	Appendix removed; wound closed.	Recovered.
52.—F. W., male adult.	St. Joseph's.	Acute attack; symptoms very mild; playing tennis evening before operation.	Appendix found very large and distended with pus; enterolith blocked it near cecum.	Appendix removed; wound closed.	Recovered.
53.—J. R., male adult.	St. Joseph's.	Interim operation.	Appendix found adherent and deformed.	Appendix removed; wound closed.	Recovered.
54.—Miss S., adult.	St. Joseph's.	Acute attack.	Uterine appendages adherent; tubes distended and occluded at fibrinated extremities; appendix adherent to right tube.	Removal of uterine appendages and appendix; wound closed.	Recovered.
55.—Miss S., adult.	St. Joseph's.	Acute attack.	Abscess near pelvic brim, in which was found a perforated appendix and the right ovary and tube.	Appendix, ovary and tube removed; abscess cavity cleansed with bichloride solution and drained through Douglas' cul-de-sac; parietal wound closed.	Recovered.
56.—Miss McK., girl.	St. Joseph's.	Acute attack; tumor.	Post-cecal abscess, containing gangrenous appendix and pus.	Appendix removed; abscess cavity cleansed with bichloride and packed with iodoform gauze; wound closed only at ends.	Recovered.
57.—R. T., male adult.	St. Joseph's.	Acute attack; tumor.	Post-cecal abscess, containing perforated appendix and pus.	Appendix removed; abscess cavity cleansed with bichloride and packed with iodoform gauze; wound closed only at extremities.	Recovered.
58.—Mrs. S. R., adult.	St. Joseph's.	Acute peritonitis.	Appendix perforated; pus found in peritoneal cavity; peritonitis extended right across the lower abdomen and up to liver; much pus in peritoneal cavity.	Appendix removed; worst infected area swabbed out and afterwards peritoneal cavity well irrigated; drain left in pelvis and right kidney pouch; region of appendix packed with iodoform gauze; wound closed.	Recovered.
59.—Capt. G., male adult.	St. Joseph's.	Acute attack; tumor.	Post-cecal abscess; appendix perforated.	Appendix removed; infected area cleansed with bichloride; packed with iodoform gauze; wound closed at ends.	Recovered.
60.—J. H., male	St. Joseph's.	Had had a number of attacks; interim operation.	Tip of appendix stuck out from a mass of intestines.	Appendix very difficult of removal; impossible to treat stump effectually; wound drained.	Recovered.
61.—J. E., male	St. Joseph's.	Interim operation.	Appendix at first seemed only represented by a stump; the balance and greater part of appendix was found entirely detached from the stump and hidden by adhesions.	Stump removed and treated in the usual manner; balance and greater part of appendix was shelled out of its bed and removed; wound closed.	Recovered.

62.—K. W., girl.	St. Joseph's.	Had appendicitis during attack of measles; operation after recovery.	Appendix found adherent and flexed on itself.	Wound closed.	Recovered.
63.—E. F., male adult.	St. Joseph's.	Had had a number of slight attacks, never confining him to bed; saw him the morning of final attack in my office apparently not much worse than usual; advised his going home to bed; perforation took place on his way home; removed to hospital and operated on same evening.	Found plenty of septic fluid in peritoneal cavity; appendix perforated; peritoneal cavity soiled from one end to the other.	Appendix removed; peritoneal cavity was well washed out with large rubber tube attached to irrigator; right and left kidney pouches and pelvis drained; wound closed at ends only.	Recovered.
64.—E. G., male adult.	St. Joseph's.	Acute attack.	On opening peritoneal cavity at night what appeared to be pus escaped; could find no perforation of appendix; good deal of suspicious looking fluid in pelvis.	Washed out peritoneal cavity thoroughly; closed wound entirely.	Recovered.
65.—B. A. C., male adult.	St. Joseph's.	Acute attack.	Found all but the peritoneal covering of appendix gangrenous; organ on point of perforation; plenty of peritoneal exudation.	Sponged well out; removed appendix and entirely closed wound.	Recovered.
66.—A. P., male adult.	St. Joseph's.	Had had many attacks; operation during attack.	Appendix buried in mass of adherent intestines.	Was obliged to shell out appendix from its peritoneal covering, as from dense adhesions to intestines its removal otherwise seemed too dangerous; wound closed.	Recovered.
67.—A. C., male adult.	St. Joseph's.	General septic peritonitis.	Peritoneal cavity contained much pus and septic fluid; appendix perforated and gangrenous up to oscum.	Worse infected area in peritoneal cavity swabbed out, then whole peritoneal cavity flushed out with hot water and drained.	Recovered.
68.—H. M., male adult.	St. Joseph's.	Acute attack.	Found appendix inflamed and adherent.	Appendix removed.	Recovered. (Complicated by ether pneumonia.)
69.—W. D., male adult.	St. Joseph's.	Had had many attacks, the last the worst; interim operation.	Operation showed appendix had been perforated at its tip; it was rolled up in omentum and otherwise adherent.	Appendix removed; wound closed.	Recovered.
70.—W. McD., male adult.	St. Joseph's.	Acute attack; tumor.	Post-cecal abscess; appendix difficult to find and get out.	Appendix removed; infected area well cleansed with bichloride and drained with iodoform gauze.	Recovered.
71.—A. W., male adult.	St. Joseph's.	Had temperature of 104 and pulse of 125 before operation, and appendix perforated four days before operation; had general septic peritonitis; was septic and his general condition desperate.	Operation revealed region of appendix and pelvis full of septic fluid pus; odor of discomposition; appendix gangrenous for half its length, including its peritoneal coat.	Appendix removed; after swabbing out pelvis and worst-soiled area of peritoneal cavity, washed out the general peritoneal cavity thoroughly; placed drains in right and left kidney pouches and pelvis, and tamponed with iodoform gauze the worst infected area near site of appendix.	Recovered. (Patient's pulse remained 120 for a week, and he had a hard fight for his life.)
72.—W. W., male adult.	St. Joseph's.	Had had a number of slight attacks; operation during attack of greater severity.	Operation showed appendix doubled back on itself and inflamed.	Appendix removed; wound closed.	Recovered.

LIST OF OPERATIONS FOR APPENDICITIS.—(Continued.)

NAME.	HOSPITAL.	REMARKS CONCERNING CONDITIONS BEFORE OPERATION.	CONDITIONS FOUND AT OPERATION.	NATURE OF OPERATION.	RESULT.
73.—B. G., male adult.	St. Joseph's.	Interim operation.	Operation showed the mesentery of appendix shortened about its middle, causing acute flexion of the organ at that point; appendix enlarged and distended beyond point of flexion; distended part contained four enteroliths and liquid fecal matter, all thoroughly imprisoned.	Appendix removed; wound closed.	Recovered.
74.—Miss H., girl.	Acute attack.	Operation revealed the appendix enlarged and inflamed, its lumen contracted near cecum.	Appendix removed; wound closed.	Recovered.
75.—M. P., female adult.	St. Joseph's.	Acute attack.	Appendix twisted by shortening of mesentery, and adherent.	Appendix removed; right ovary removed at the same time, as ovary was cystic and size of an orange; wound closed.	Recovered.
76.—H. B., boy.	St. Joseph's.	Tumor midway between ribs and anterior superior iliac spinous process.	Incision over middle of swelling disclosed a post-cecal abscess containing a perforated appendix.	Appendix removed; abscess area well cleansed with bichloride; packed with iodoform gauze and drained; wound closed at each end.	Recovered.
77.—E. R., girl.	Jubilee.	Acute attack.	Operation revealed appendix in state of acute inflammation and adherent, containing enterolith.	Appendix removed; wound closed.	Recovered.
78.—J. C., male adult.	St. Joseph's.	Had had several attacks; present attack most severe.	Appendix found adherent to pelvic wall and distended.	Appendix removed; wound closed.	Recovered.
79.—A. C.	St. Joseph's.	Had complained of pain in right side, midway between ribs and iliac spine for about three years; no tumor; no tenderness; had vague intestinal symptoms.	Appendix found six inches long, strapped across and partly round and adherent to the ascending colon.	Exploratory incision in right semi-lunar line; appendix removed; wound closed; pain and other symptoms complained of before operation ceased as result.	Recovered.
80.—Miss C., adult.	St. Joseph's.	Acute attack.	Appendix found adherent and inflamed.	Appendix removed; wound closed.	Recovered.
81.—Miss B., adult.	St. Joseph's.	Acute attack.	Appendix and right ovary and tube found adherent.	Both organs removed; wound closed.	Recovered.
82.—J. K., male adult.	St. Joseph's.	Interim operation.	Appendix found to be extra-peritoneal.	Interior of appendix was shelled out of its covering and removed; wound closed.	Recovered.
83.—E. H., male adult.	St. Joseph's.	Had had previous attacks; tumor.	Found appendix coiled up behind cecum, adherent and perforated in pool of pus, appendix diseased right up to band on cecum.	Appendix removed; abscess cavity cleansed with bichloride solution; packed with iodoform gauze; ends of wound only closed.	Recovered.
84.—H. S., male adult.	St. Joseph's.	Had suffered from abscess which had pointed and been opened just above Poupart's ligament on right side some months before; sinus almost closed; interim operation.	Found appendix densely adherent to cecum, pointing upwards.	Usual incision; shelled appendix out from peritoneal covering and removed it; inserted a small drain, as I was afraid of the old sinus.	Recovered.

85.—J. W., boy.	Jubilee.	Had been ill a week before admission; area of dullness extending almost up to liver; tumor between ribs and anterior iliac spine.	Tumor felt prior to incision; composed of thickened and inflamed intestines and omentum adherent to parietes walling off pus from left side; on separating adhesions pus roiled out; further dissection revealed immense abscess cavity extending from region of appendix up to behind liver containing three or four pints of striking pus; tip of appendix which was the starting point of the trouble found gangrenous and perforated; appendix contained enterolith.	Incision through right rectus over most prominent part of tumor; clean side of abdominal cavity protected with gauze packing; pus mopped up as it appeared until whole abscess cavity was empty; abscess cavity well swabbed out with sponge wrung out of bichloride solution; appendix removed; large drainage tube inserted through stab wound below right kidney to under the liver; anterior wound closed only at ends and packed with iodoform gauze.	Recovered.
86.—Mrs. W., adult.	St. Joseph's.	Interim operation.	Appendix found adherent and deformed; patient had uterine fibroids.	Appendix removed; uterine appendages were removed at the same time; wound closed.	Recovered.
87.—Miss H.	St. Joseph's.	Acute attack.	Operation revealed appendix acutely inflamed, enlarged and distended from stricture of its lumen near cecum.	Appendix removed; wound closed.	Recovered.
88.—Mrs. B., adult.	St. Joseph's.	Interim operation.	Found appendix distorted and adherent, also double pyosalpinx.	Appendix and uterine appendages removed; wound closed.	Recovered.
89.—Miss L.	St. Joseph's.	Acute attack.	Appendix found adherent and flexed on itself.	Appendix removed; wound closed.	Recovered.
90.—W. M., male adult.	Jubilee.	Interim operation; patient complained of vague intestinal symptoms.	Appendix found adherent.	Appendix removed.	Recovered.
91.—Miss S., adult.	St. Joseph's.	Acute attack.	Appendix found acutely inflamed, stenosed near cecum and distended beyond that point.	Appendix removed; wound closed.	Recovered.
92.—McT., adult.	Jubilee.	Had had appendix trouble for four or five days, all symptoms distinctly subsiding at time of operation.	Found appendix on point of perforation; gangrenous throughout interior and necrotic process at one point right through peritoneal covering; this perforated during operation; mesentery acutely twisted.	Appendix removed; wound closed.	Recovered.
93.—R. C., adult.	St. Joseph's.	Had just recovered from attack.	Appendix badly adherent.	Had to shell it out of peritoneal envelope, as could not tie mesentery; appendix broke at point of flexion; left in a small gauze drain.	Recovered.
94.—W., adult.	St. Joseph's.	Acute attack.	Appendix adherent in circle to cecum; difficult to get at; found on girdling appendix, its lumen narrowed right up to cecum.	Removed appendix and drained with wrapped tube (small), also with iodoform gauze packing; wound left open.	Recovered.
95.—A., adult.	Jubilee.	Acute attack.	Appendix found adherent, pointing directly backwards, with practically obliteration of its mesentery.	Girdled appendix and stripped it out; removed in usual manner.	Recovered.
96.—T., adult.	St. Joseph's.	Had had a number of attacks; interim operation.	Found appendix adherent and on the stretch, its tip being adherent to pelvic wall; mesentery extended up to its distal extremity.	Appendix removed in usual manner.	Recovered.
97.—K. G.	Jubilee.	General septic peritonitis; perforation of appendix, which had taken place forty-eight hours before arrival; operation immediately after arrival at hospital.	Plenty of septic fluid in peritoneal cavity, chiefly in pelvis and lower abdomen; appendix perforated and adherent.	Appendix removed; area of appendix and pelvis well swabbed out; afterwards whole peritoneal cavity flushed out; three drains right and left kidney pouches and pelvis; wound left open; one stitch only at each end of wound.	Recovered. (Complicated by pleuropneumonia.)

LIST OF OPERATIONS FOR APPENDICITIS.—(Continued.)

NAME.	HOSPITAL.	REMARKS CONCERNING CONDITIONS BEFORE OPERATION.	CONDITIONS FOUND AT OPERATION.	NATURE OF OPERATION.	RESULT.
98.—Miss M.	St. Joseph's.	Acute attack; pulse, 125; temperature, 102; had been very ill for forty-eight hours; very tender on palpation; tumor.	Operation revealed appendix acutely bent on itself; distally contained at point of flexion; distal end contained a large amount of pus; appendix was perforated, lying in a pool of very stinking pus in front.	Swabbed septic cavity carefully; removed appendix; drained with tube and gauze.	Recovered.
100.—Mrs. C.	Jubilee.	Interim operation for appendicitis; had had three attacks.	Appendix found adherent chiefly to omentum; appendix stenosed; lumen completely obliterated near its middle; distended beyond this point with mucus.	Appendix removed.	Recovered.
100.—Miss K.	St. Joseph's.	Interim operation; had had a number of attacks.	Operation revealed appendix non-adherent; operation showed appendix as in last case; complete stenosis of its lumen about its middle; beyond this point full of clear mucus; lining much thickened.	Operation easy.	Recovered.
101.—Miss I., girl.	St. Joseph's.	Symptoms very mild before operation; had had a number of attacks, the last one the worst, but this was apparently subsiding; less tenderness; pulse, 100; temperature, normal.	Appendix fixed across the iliac vessels; pointing into pelvis, in fact adherent to posterior pelvic wall; on bringing it to surface it was evidently in very bad condition, and while removing it, in spite of all care, some pus leaked out; appendix on examination after removal was found stenosed at centre; distal portion discolored with stinking pus and lining becoming necrotic; process had reached surface of appendix at two points distinctly.	Pus carefully swabbed out and appendix removed in usual manner; bed out of which it was dug was well swabbed out with bichloride solution; wound closed entirely.	Recovered.
102.—Mr. R.	Jubilee.	Complained of continual uneasiness in region of appendix; never had any distinct attack.	Operation revealed appendix in pelvis and adherent, its distal extremity dilated; on examination after removal found almost complete stricture of lumen of appendix about one inch from cecum; beyond this point mucous lining distinctly thickened and organ dilated.	Appendix removed in usual manner.	Recovered.
103.—Japanese.	St. Joseph's.	Had had a number of attacks; interlun operation.	Appendix enlarged; stenosed almost completely about its middle; mucous membrane thickened beyond; no adhesions; evidently had been recently inflamed.	Appendix removed.	Recovered.
104.—Miss D., girl.	St. Joseph's.	Acute attack.	Acute catarrhal appendicitis.	Appendix removed; wound closed.	Recovered.
105.—F.	St. Joseph's.	Had had a very severe attack a year back; six months later fresh symptoms reappeared and continued to date of operation.	Appendix difficult to find; adhesions everywhere to intestines, ilium and cecum and omentum to parietes; the last inch of appendix was a flurvous chord, probably had been perforated at the severe attack one year before.	Shelled appendix out of its peritoneal envelope, and closed wound entirely.	Recovered.

any such case, nor have I even thought of doing so; an incision is an infinitely safer procedure.

On page 936 of "Allbutt's System of Medicine," the author states: "In one or two instances the removal of the appendix on account of the nature of the adhesions was found to be impossible." No doubt cases occur when this may be the case; they should be, however, extremely exceptional. With the exception of the parietal abscess cases, in which cases the consensus of opinion is in favor of leaving the appendix untouched, I have removed the appendix in all my operations, including 29 interim cases. In my opinion, if it is possible to find any part of the appendix by opening up the peritoneal coat, it is possible to strip out the appendix proper, no matter what the nature of the adhesions. This simple procedure has extricated me from every difficulty of this kind which I have encountered.

On page 931 of the same work the author emphasizes the necessity of attending to the digestive organs and state of the teeth as a means of warding off relapsing appendicitis; to use his own words, "In many instances I have known a set of false teeth to bring a case of relapsing perityphlitis to a favorable ending, the patients having had no further attacks." I confess by no stretch of the imagination can I understand how any such means can prove curative of stricture of the lumen of the appendix, which I have found to be the most frequent condition in causing the disease in question. Neither can I understand how such means can get rid of (masticate?) an enterolith confined in the organ.

Concerning the term, "perityphlitis," by which the author elects to designate the disease, to apply the term of "perihepatitis" to cholelithiasis is about as accurate.

The chief aim of a medical man when a patient comes to him with a disease, I imagine is, if possible, to rid such person of his or her ailment; the only means of doing this in the present instance is, without doubt, the removal of the diseased and useless organ; that this can be done safely my list of cases demonstrates.

The chief defect of the articles in question, and of very many written on this subject, is the terrible uncertainty of the advice as to when operation should be performed—one author advocating surgical interference in the presence of such and such symptoms and conditions, and the next writer advising operation under other circumstances, no uniformity of opinion existing. Such a condition of things is fraught with danger—it is a condition of doubt, uncertainty and chaos. No such comment, at any rate, can be made with regard to what is advocated in this paper; my advice has certainly the merit of simplicity, and to have plain and

clear views of one's duty in any given set of circumstances to me is always desirable. In the present instance, having weighed the whole matter carefully, when it is my fortune to meet a case of diseased appendix, I advise operation; if this is not assented to, I disavow all responsibility in the case.

To conclude, early operation is admitted by all to be the proper course in the acute perforating peritonitis cases.

Early operation in abscess cases means small abscess easily and safely dealt with.

Early operation in non-perforating cases means avoiding all sorts of catastrophe to the patient, such as perforation, gangrene, of the organ reaching the surface and infecting the peritoneal cavity, recurrence of the disease at a possible inopportune time, and last, but not least, cure of his disease.

Early operation in the interim cases means rapid restoration of the patient to health, the removal of a constant menace to the patient's life, and a comparatively easy surgical procedure.

Early operation means, in short, successful operation. Delay means uncertainty, bringing surgery into disrepute, *anything* but uniform success, and loss of life and health.

Removal of the appendix in old, incurable or recurrent abscess or fistula resulting from abscess, means the cure of such abscess or fistula.

RECOGNITION AND PREVENTION OF TUBERCULOSIS.

BY DR. C. J. FAGAN, BRITISH COLUMBIA.
Secretary Provincial Board of Health.

My name is on the programme for a paper on "Sera and their Uses," and I have to ask the indulgence of the Society for changing at the last moment to another subject, which just now appeals to me and has for some time occupied my attention. The heading of my paper is double-barrelled: (1) "The Importance of Early Recognition of Incipient Phthisis," and (2) "The Need of Laws for the Prevention of the Spread of Tuberculosis."

I have lately read a great deal on the many phases of tuberculosis, and was struck with the want of emphasis regarding the above. Moreover, I have recently proposed certain restrictive laws, and was painfully surprised at the opposition evinced, from quarters, too, where I expected support.

I will first speak of the need of early recognition of phthisis. It would almost seem unnecessary to call attention to the importance of making an early diagnosis, but applying my own experi-

ence and hearing of the experience of others, I cannot shut my eyes to the fact that tuberculosis of the lungs is rarely recognized until it is too late to effect much good by treatment.

To reach a positive conclusion before the disease has reached extensive lesions, or seriously impaired the patient's resistance, or before the simple tuberculous deposit in the lungs has become complicated with secondary infection, is obviously a matter of vital importance to the patient.

Authorities tell us that the autopsy-table reveals the fact that a very high percentage of subjects dying from other causes than tuberculosis, give evidence of healed tuberculous deposits, and the clinical results noted in incipient cases, where intelligent and active measures were adopted, bear ample evidence of its curability.

The results obtained at sanatoria have demonstrated, not only that tuberculosis is curable, but that it is curable in direct proportion to the stage at which treatment is started. Dr. Trudeau, who is at the head of the best-equipped and best managed sanatorium in America, states in his reports that during the years 1897, 1898 and 1899, of 113 incipient cases, 82, or about 72 per cent., were discharged cured; while of 151 advanced cases, only 27, or 17.8 per cent., recovered; and not one of the 59 far advanced cases was discharged cured.

Such results conclusively show the need and value of early diagnosis.

No doubt the diagnosis of incipient tuberculosis presents many difficulties. Speaking for myself, when I was in general practice I depended too much on the evidence the stethoscope elicited, and was afraid to base my opinion on rational symptoms, which are nearly always present long before lesions can be detected by physical examination. I do not think any physician is justified in postponing special treatment in a case in which is present persistent slight cough, with loss of flesh and strength, and a slight afternoon rise of temperature. This is the condition which Dr. Trudeau speaks of as "incipient tuberculosis," and in which stage up to 72 per cent. of cures are effected. What a responsibility, then, physicians bear if they wait till satisfied of physical evidence that their patient has tuberculosis.

It has been stated that we are not justified in naming a trouble to be tuberculosis until we find the bacillus in the sputum. This is a great error, for we all know that the bacillus is not constant in the sputum of tuberculous patients, and moreover is not freely given off, if at all, until the deposit breaks down. It is, however, of such supreme importance that a definite diagnosis should be made at the earliest possible moment, that when the cough

persists for a couple of weeks, or when the symptoms above mentioned are present, even with a very slight cough, frequent search for the bacillus should be made. Of course, when you get the bacillus in the sputum and you are satisfied that it is not mixed with accidental scrapings from back of tongue, etc., you know that your patient has tuberculosis, but I think it would be nothing short of criminal to await treatment for such confirmation.

The other methods of recognizing phthisis in its early stages do not take the place they are entitled to. No doubt some expert knowledge is required, and the X-ray machine is expensive, but I hope and think the time is not far distant when every large centre will have at least one good apparatus. It is invaluable in the detection of early and deep deposit, and I trust it will soon be taken advantage of, as it deserves.

The other method is tuberculin. Two objections have been advanced against its use: First, that sometimes the bacillus was injected into a patient heretofore free; second, that it caused active inflammation in deposits which were quiescent, and were probably in a condition in which no further spread would occur.

There is no doubt but that both objections were well taken, but they have since been completely met by getting rid of the bacillus by heat instead of filtering, and in the second instance by using very small doses of tuberculin instead of large ones, which beyond doubt caused trouble.

Another method which I have already alluded to is used more frequently, but not as generally as it deserves. I refer to the microscopic examination of the sputum. I here again refer to this because I wish to announce that, having charge of the Provincial Bacteriological Laboratory, I am prepared to examine all specimens of sputum sent to me—of course, free of cost—but I consider that every physician should be prepared to do this himself, because, as I said above, a negative result does not necessarily mean the absence of tuberculosis, and consequently frequent examinations must be made, and the trouble and inconvenience of sending a distance is often a deterrent.

The cry has gone abroad that consumption is curable in its early stages, and no doubt has brought hope to many, but I fear "the many" will be disappointed, for I regret to say, "early stages" does not mean what is popularly accepted. Too often the patient is not told he has tuberculosis until he can no longer be deceived. His disease is labelled grippe, pleurisy, bronchitis; he is informed that the blood came from his throat, etc, until a persistence of the symptoms—emaciation, cough, hectic and sweats make the true nature of his trouble too apparent. When the results of treatment become more generally understood and

placed at their proper value, a diagnosis of truly incipient tuberculosis will more often be made. Grave responsibility, then, rests upon the physician, and I think he should leave no method untried which could enable him to reach an early diagnosis.

I will now touch as briefly as I can on aspect No. 2, which I ask you to consider to-day.

I have drawn out a set of regulations, and distributed a few copies. They are not yet adopted by the Provincial Board of Health, and I would be glad to get suggestions regarding them.

To my mind there is no problem which confronts sanitary authorities at the present time exceeding in its importance and magnitude that presented by the tuberculous diseases, nor is there any other sanitary proposal which offers promise of such large returns in diminishing the mortality rate as one which provides successful measures for the prevention of tuberculosis.

Only in recent years have the sanitary authorities and the medical profession begun to realize the great possibilities in the way of restriction of this disease, yet but limited and ineffectual efforts are being made for its suppression. We still view with comparative indifference the ravages of a disease which causes from one-fourth to one-fifth of the deaths of the human race.

The practical difficulties in the way of regulations are many. Sanitary authorities in many of the older countries have pronounced against them. The Ottawa convention seemed unanimous in opposition to restrictive laws, and since I proposed these regulations I have received many protests.

In considering the advisability or need for regulations, certain facts in relation to the disease must be stated.

Dr. Biggs, of New York, who is an active advocate for restrictive measures, thus sums up:

1. Tuberculosis is an infectious and communicable disease, produced by the tubercle bacillus.

2. There is no satisfactory proof that the tubercle bacillus multiplies outside of the living body under natural conditions; it follows as a necessary sequence that every case of tuberculosis is produced by the reception of the same identical tubercle bacilli, which have been thrown off by some other human being, or by some animal suffering from tuberculosis.

3. The tubercle bacilli producing an infection are generally obtained from dust contained in the air breathed, or in the drink or food taken.

4. The tubercle bacilli thrown off by a person or animal suffering from the disease are contained solely in the discharges from the tuberculous tissues, and it should be possible to absolutely control their dissemination.

5. It follows, therefore, that tuberculosis is preventable, and (in early stages) clinical experience shows that it is curable.

6. It is by far the most fatal disease with which we have to deal, and from both an economic and sanitary standpoint is of vastly greater importance than any other infectious disease, both because of the number of deaths it causes and the suffering it produces. Its importance is further enhanced because it occurs to the greatest extent in the working period of life, and its victims are cut off at the time of their greatest usefulness.

7. Its prevention requires the exercise of enlightened cleanliness on the part of its victims, which presupposes education, suitable hospital accommodations for the care of advanced cases among the poor, and the efficient disinfection of dwellings.

These ends can no more be attained in tuberculosis without regulations than they can be in the contagious diseases.

I believe that the arguments urged against restrictive regulations are usually based on erroneous conceptions, and are not fair objections to their adoption.

I will now take up some of the objections raised, and can do no better than answer them as nearly as possible on lines adopted by Dr. Biggs in answering similar objections to proposed regulations for New York.

It has been urged against adopting regulations:

1. That the disease is not highly contagious, as are those diseases in which regulations are required; that it is not of limited duration, and that long and constant exposure is required to produce infection. It may be said in reply, simply, that the evidence is conclusive that tuberculosis is produced by the tubercle bacillus and that every case is the result of infection by the same tubercle bacilli, which have been thrown off by some other being suffering from tuberculosis. I cannot see that any other answer is required, for it matters not how indirect the infection is, or how difficult it may be to trace it, or how slow and insidious may be its development, or how prolonged the exposure required, the one fact remains that tuberculosis is the result of such infection, and if the arguments quoted have any effect it is to emphasize the importance of the adoption of proper regulations, because the disease, on account of these peculiarities, is far more easily prevented than the purely contagious affections.

2. It has been strongly urged that in many instances it is undesirable that the patient should know that he is the subject of tuberculosis, and that this knowledge will affect his well-being.

This view, although earnestly held by many physicians, I believe is usually erroneous. The information may be a shock, and a source of mental suffering and anxiety, but the ultimate

effect will, I believe, be in the patient's interest, for the patient will then observe the precautions which are required for his own recovery and for the prevention of infection in others and reinfection in himself. He will further consent to the adoption of such radical changes in his life and work, if these be possible, as are necessary for increasing his chances of recovery.

3. It is urged that if it becomes known that an individual has tuberculosis, he will become socially ostracized. In reply, it may be said that this statement is greatly exaggerated. Already, with the increase in popular knowledge in regard to the nature of tuberculosis, the unreasoning dread of the disease which existed at first is disappearing and is being replaced by a more intelligent conception of its nature and the means for its prevention. It cannot be too strongly insisted that, with the observation of proper precautions, a tuberculous patient may be absolutely free of danger to his intimate associates. When the knowledge of this fact has become firmly fixed in the minds of the community a great advance will have been made.

4. It is urged that the disease is of long duration; that the individual may be able to carry on his usual avocation for a long period of time, and the knowledge that he has tuberculosis may result in his being deprived of employment, or may render it impossible for him to find a suitable home.

In reply to this it may be said that too much importance is given to these latter statements; first, because notification to the sanitary authorities does not involve notification to the community at large; second, because in most occupations, if the individual observes proper precautions, he does not become a source of danger.

5. It is urged that the medical profession and the community are not yet ready to accept such advanced measures, and that it is useless to attempt to enforce such measures without their support.

In reply to this it may be said that experience has shown that the people as a whole, and even most consumptives, will and do support this measure. In no other way can we impress so strongly on the people the communicability of this disease. No reasonable sanitary officer would expect to put into force regulations regarding tuberculosis in the same way that similar ones in regard to smallpox would be enforced. The process of the enforcement of such laws must be developmental, and it must be distinctly understood and strongly and constantly emphasized, that tuberculosis is a different kind of disease from smallpox or scarlet fever or any of the other highly contagious affections.

It does not, therefore, seem to me that there has been ad-

vanced any valid objections to reasonable regulations. Of course, like any restrictive laws, they can be made objectionable in the manner of applying them, but in that case the fault will be with the authorities and not in the laws. Of course, it will sometimes happen that individuals must suffer a hardship, but the principle of the greatest good to the greatest number must and should prevail.

Re TUBERCULOSIS.

Regulations of the Provincial Board of Health of British Columbia, approved by His Honor the Lieutenant-Governor in Council, dated ———.

Whereas tuberculosis is now proved to be infectious, and is at the present time existing in many parts of the Province, the Provincial Board of Health enacts the following regulations :

NOTIFICATION.

1. Whenever any physician knows or suspects that any person whom he is called upon to visit is infected with, or has died of, tuberculosis, he shall immediately notify the Medical Health Officer, and give an account of the condition of patient and state what precautions are being taken to prevent infection.

2. Whenever any householder knows or suspects that any person within his family or household has tuberculosis, he shall immediately give notice to the Medical Health Officer.

3. Whenever any teacher in any school has reason to suspect that any pupil is suffering from tuberculosis, he shall notify the Medical Health Officer immediately, and may prevent the attendance of such pupil until medical evidence is produced that such pupil is not suffering from tuberculosis or any infectious form thereof.

4. Whenever any Superintendent of any hospital—public or private—asylum, gaol, orphanage, “Home,” convent, or private school, knows or suspects that any inmate of such hospital, asylum, gaol, orphanage, “Home,” convent or private school, is suffering from tuberculosis in any form, he shall immediately notify the Medical Health Officer.

5. In municipalities or districts where no Medical Health Officer has been appointed, notification should be sent to the Secretary of the Provincial Board of Health.

MEDICAL HEALTH OFFICER.

6. “Medical Health Officer” shall mean and include the Medical Health Officer appointed under the provisions of the “Health Act,” to act within the limits of the jurisdiction of any Local Board, or Health District.

7. The Medical Health Officer shall, within 48 hours, give notice in writing to the Secretary of the Provincial Board of Health of every case of tuberculosis reported to him, and shall state as nearly as possible condition of patient and what precautions are being taken to prevent infection.

8. In case the Medical Health Officer is not satisfied with the report of the physician in charge, he may demand a fuller report, and in the event of his still being dissatisfied he shall visit patient and satisfy himself that all necessary precautions are being carried out.

9. In case where Medical Health Officer and attending physician disagree as to precautionary measures, the matter shall be referred to the Provincial Board of Health for final settlement.

10. Whenever a case is reported as not being under the charge of a physician, the Medical Health Officer shall forthwith visit such case, and instruct patient as to necessary precautions against general and self infection.

11. Whenever the Medical Health Officer or the physician in charge considers that a house, or any part of a house, is infected with tuberculosis, he shall order said house or part of house to be disinfected in accordance with circular issued by Provincial Board of Health.

12. In all cases of death from tuberculosis the rooms or house occupied by deceased shall be disinfected to the satisfaction of the Medical Health Officer, or the Secretary of the Provincial Board of Health or his Deputy.

13. Whenever a case of tuberculosis is reported from a hotel or boarding house, the Medical Health Officer shall visit such case while residing in said hotel or boarding-house once a week, or as often as the Secretary of the Provincial Board of Health may direct.

SPITTING IN PUBLIC.

14. Inasmuch as spitting is purely a matter of habit, and is offensive to many, and is often very harmful and a fruitful means of carrying disease, it is hereby declared unlawful to spit in trams, railway cars, or other public conveyances, or on sidewalks or floors and other parts of public buildings.

TUBERCULOUS MILK.

15. Inasmuch as tuberculous milk is a most fruitful source of consumption, it is hereby declared unlawful for any person to sell milk unless they have a certificate of a date not later than six months from the Provincial Veterinary Surgeon that the cows from which such milk comes are free from tuberculosis. Such certificate may be demanded by any customer, or Medical Health

Officer, Sanitary Inspector, Secretary of the Provincial Board of Health, or his deputy.

DISINFECTION.

16. Whenever it appears necessary or advisable to the Medical Health Officer to have any house, hotel, boarding-house, hall, theatre, car, railway car, or other public conveyances disinfected, he may order same to be done and at the expense of the owners.

Clinical Reports

LABOR FOLLOWING AMPUTATION OF CERVIX.

BY RUSSELL THOMAS, M.D., LENNOXVILLE, QUE.

A woman in confinement, two children living; bad history of previous labors; forceps and post-partum hemorrhage after her last child was born, and two years ago she had the cervix amputated for extensive lacerations. Pains were rather feeble and more or less continuous for a week, when I was sent for. On examination could find no os nor opening of any kind in the uterus; but there was apparently a very faint linear, antero-posterior or supra-inferior, depression in the anterior wall of the vagina, which could be seen on introducing Graves' speculum. It was necessary to open a passage, which I did with a pair of scissors, and dilated digitally to about size of a half-dollar—all under chloroform. The patient was then allowed to come out of chloroform and venture to try something. Pains very feeble, so gave 10 grs. quinine, and repeated this three hours after without much effect. Gave fairly hot injection into bowels, which had effect of cleaning out bowels and stimulating uterus, so that pains became stronger and the membranes protruded; after waiting about two hours decided to again put patient under chloroform, and again dilate with fingers. The edge of the opening was very tense, and felt like the sharp edge of a ligament, so with pair of scissors slightly nicked the edge in three or four places, and then found that I could dilate readily *without rupturing* the muscular walls. I then ruptured the membranes and about a pint of liquor amnii came away. The pains became stronger, and I was surprised to find another bag of membranes coming down, much tougher in texture. On rupturing this, a large quantity of liquor amnii poured out, should guess at more than a quart. The head now came down,

but would not engage. so after waiting a reasonable time I applied the forceps above the brain, and brought the head without much difficulty into the pelvis. I then removed the forceps, and nature quickly and easily terminated the delivery. No rupture of perineum, nor yet of uterine wall. I consider the case interesting.

1. Almost occlusion of canal after an amputation of cervix, necessitating operative measures to secure opening in uterus to allow child to pass.

2. Double membranes, with liquor amnii between, and in a single birth.

3. Inertia of uterus not properly overcome until head was brought down into pelvis.

Patient made good recovery, and had no post-partum hemorrhage. Child well and strong.

Original Abstracts.

THE SOMATIC SIGNS OF BRAIN SYPHILIS.

Hugh T. Patrick, Professor of Neurology, Chicago Poly-clinic, contributed (*The Journal of the American Medical Association*, October 26th, 1901) a paper with the above title to the fifty-second annual meeting of the American Medical Association. The paper is limited to the signs of histologically definable specific invasion of the brain alone. He first enumerates seven postulates: (1) Fifty per cent. occur in three years after the primary sore; (2) absence of specific history has no weight in women and very little even in men; (3) syphilis of the brain is not synonymous with gumma; (4) the order of frequency is as follows: Syphilitic arteritis, syphilitic meningitis, and syphilitic infiltration of cranial nerves; gumma, the least frequent; (5) paralysis from brain syphilis is most frequently caused by thrombosis due to syphilitic arteritis; (6) the important symptomatology is that which precedes and presages paralysis; (7) syphilis is never a "system disease." The writer then considers the important diagnostic symptoms.

1. *Lack of Type.*—Brain syphilis is strikingly inconsistent in the production of apparent inconsistencies. This in itself has almost become a rule without any exceptions, with the neurologist, that when he meets a brain case conformable to no rule, he is very apt to diagnose "brain syphilis."

2. *Headache.*—In about 75 per cent. of all cases of brain syphilis, headache is present, which is usually severe, mostly nocturnal, but occasionally vesperal, and even diurnal. The location

is unimportant. Intermittent at first, it soon becomes continuous, and keeps the patient in agony day and night.

3. *Transient Attacks*.—These include every sort of fit, from the slightest to the most severe. Epilepsy or apoplexy, between 20 and 40, should always awaken suspicion of specific disease.

4. *Cranial Nerve Paralysis*.—Those pertaining to the eye are more frequently involved. Dr. Patrick says, that in the absence of traumatism, at least 90 per cent. of all cases of ocular paralysis in adults is caused by brain syphilis, locomotor ataxia, general paresis, and brain tumor, and of these by far the most frequent causes are locomotor ataxia and syphilis.

5. *Addition of Spinal Cord Symptoms*.—Syphilitic disease of the cerebral meninges often spreads to the spinal cord.

6. *Impending or Accomplished Thrombosis*.—Many of the signs of cerebral lues are those caused by local abnormalities of circulation, and they resolve themselves almost entirely into the signs of impeded circulation and arterial occlusion. Not the nerve elements, but the extra-neural tissues, are diseased—arteries, veins, membranes and nerve sheaths.

7. *Peculiar Stupor*.—The somnolent, semi-stuporous condition which occurs more frequently in cerebral lues than in any other brain disease, coupled with one or more of the somatic signs, is almost pathognomonic of brain syphilis.

8. *Fever*.—Fever is exceptional, unless pons or medulla be involved; it is therefore an afebrile disease.

9. *Vomiting*.—This occurs more frequently when the posterior fossa is invaded. Cerebral vomiting is not necessarily projectile.

10. *Polydipsia, polyuria and polyphagia* are not unusual results of brain syphilis, the last being the least frequent.

11. *Insomnia* is not rare; constant dizziness may be present.

GEO. E.

THE CLOSE RELATIONSHIP EXISTING BETWEEN EPILEPSY AND DYSPEPSIA.

Charles D. Allen, M.D., Professor of Clinical Gastro-Enterology in the Detroit College of Medicine, presented this paper to the Michigan State Medical Society (*The Philadelphia Medical Journal*, October 5th, 1901):

After giving a short resume of epilepsy, the author goes on to discuss the influence which dyspepsia exerts with regard to the attacks of epilepsy. In some of these cases we see a coated tongue, a dilated stomach, abnormal fermentation, fetid stools, and on examination of the urine, indican is found.

Heiter and Smith (*New York Medical Journal*, August 20th, 27th, and September 3rd, 1892) have reported thirty-one cases of idiopathic epilepsy, in which they observed there was a certain relationship between it and the putrefactive processes in the intestine; and their conclusions, based upon these observations, were to the effect that the paroxysms in many cases are due to toxic substances in the blood. Although not holding that true epilepsy is always connected with digestive troubles, there is a class of patients whose epilepsy seems to be directly traceable to gastrointestinal irritation. A case of interest is cited where patient had attacks as often as every eight to eleven days. Examination of stomach contents showed hypochlorhydria. The patient was put on anti-fermentatives, as after every attack he would vomit and belch large quantities of gas. Benzosol and resorcin were used, with atropine for the hypochlorhydria. Improvement took place immediately. In seventeen months the patient only had three attacks. In infants, stomach trouble frequently produces convulsions, which resemble epilepsy, and in this class anti-fermentative treatment is productive of good results.

Digestive troubles are frequently latent, and in searching for a cause of epilepsy, the digestive organs should also be examined, even to the extent of an examination of the stomach contents; and the urine.

GEO. E.

THE ROLE OF COCCI IN THE PATHOLOGY OF THE SKIN.

Dr. Sabouraud, of Paris, read a paper on this subject at the recent meeting of the British Medical Association. He said that there are three microbes, namely, the streptococcus of Fehleisen, the staphylococcus pyogenes aureus, and the grey-cultured staphylococcus (morococcus of Unna), which play an important part in the pathology of the skin.

Dr. Sabouraud believes that the streptococcus of Fehleisen is the cause of impetigo contagiosa of Tilbury Fox, of erysipelas, of the bullæ and nodules which may arise during the course of streptococcus septicemia, and of some of the complications of eczema.

The staphylococcus pyogenes aureus is credited with being the causative agent of the impetigo of Bockhart, sycosis, furunculosis, acne keloid, acne variolaformis, and of many complications of vesicular affections, such as eczema vesiculosum.

The grey-cultured staphylococcus, which is the most common bacterium on the surface of the human skin, grows more luxuriantly in some skins than in others. It is the cause of pityriasis,

seborrhea corporis and other forms of the so-called seborrheic eczema.

As regards treatment, Dr. Sabourand considers a solution of zinc sulphate (1 to 100—200), is the best application to lesions produced by the streptococcus. A mixture of sulphur precip., 19 grm., alcohol 30 grm., aquæ rose 100 grms., to lesions produced by the staphylococcus pyogenes aureus, and an ointment containing tar and yellow oxide of mercury, the best for lesions produced by the grey-cultured staphylococcus.

G. C.

WHAT IS INTUSSUSCEPTION: HOW SHOULD IT BE DEALT WITH?

At a meeting of the North Wales Branch of the British Medical Association, July 9th, 1901, Edmund Owen read a paper on this subject. He said intussusception means the catching up of one piece of bowel within another piece; and as the word intussusception was derived from "intus," within, and "susceptum," caught up, it was an excellent one to give to the pathological condition.

As regards the etiology, he said that anything which excites vigorous peristaltic action of the intestines is apt to produce the disease. He had known a case to occur after the administration of a large dose of fluid magnesia to an infant. Constipation or diarrhea is also a likely cause of it.

The diagnosis of intussusception is, as a rule, easy, as the symptoms are usually quite definite. Sudden pain in the abdomen, collapse, vomiting, mucus and blood in stools, are common symptoms. The distress in the abdomen comes on in paroxysms. The abdomen may remain flat, as there is no actual intestinal obstruction. If there is no distention of the bowel, a "thickening" or a "lump" may be made out in the region of ascending colon.

Mr. Owen is strongly of the opinion that all cases of intussusception are surgical from the very beginning. He believes that the use of water-pressure is irrational, as the force on the intussuscepted part is no greater than that on other parts of the bowel. He cites a case where he was called to operate after an unsuccessful treatment by injections of water, and found the intussusceptum prolapsed through a rent in the intussusciens. He considers it nothing less than a calamity that physicians every now and then have managed to effect a cure by using an enema, as it tends to perpetuate that form of treatment.

G. C.

Physicians' Library

Practical Treatise on Diseases of the Skin. For the Use of Students and Practitioners. By JAMES NEVINS HYDE, A.M., M.D., Professor of Skin, Genito-Urinary, and Venereal Diseases, Rush Medical College; and FRANK HUGH MONTGOMERY, M.D., Associate Professor. Sixth and Revised Edition. Illustrated with 107 engravings and 27 plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co. 1901.

The fact that the first edition of this book appeared in 1883, the second in 1888, the third in 1893, the fourth in 1897, the fifth in 1899, and the sixth in 1901, may be taken as positive evidence that the book is becoming more appreciated from year to year. It also indicates that at least one of the authors has been for a long period a student in dermatology. The latter inference is a very important one, as there is no other field of medicine except surgery in which experience is such an important factor.

The present edition has been enlarged and thoroughly revised in those parts where it was found necessary in order to bring the work abreast of the most recent developments in dermatology. Among the subjects which have been wholly or partly re-written in this edition may be mentioned the following: Anatomy, general diagnosis, herpes simplex, herpes zoster, acne, scleroderma, tuberculosis, blastomycosis, and carates. The sections on blastomycosis, syphilis, etc., subjects upon which the authors have done considerable original work, are particularly good.

The work covers the whole field of Dermatology, and is written in such a clear and concise form that it will be found useful to both undergraduates and graduates. For several years the work has been a favorite with the medical profession, and we are satisfied that it will continue to occupy this position.

Practical Surgery: A Work for the General Practitioner. By NICHOLAS SENN, M.D., Ph.D., LL.D., Professor of Surgery, Rush Medical College, Chicago. Handsome octavo volume of 1,133 pages, with 650 illustrations, many in colors. Philadelphia and London: W. B. Saunders & Co. 1901. Cloth, \$6.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

The book deals with practical subjects, and its contents are devoted to those sections of surgery that are of special interest to the general practitioner. Familiar with the needs of the general practitioner as a surgeon, the author has aimed to simplify

and lighten his often trying work by a full discussion of those subjects that come within the legitimate sphere of the daily routine work of every practising physician. Special attention is paid to emergency surgery. Shock, hemorrhage and wound treatment are fully considered. All emergency operations that come under the care of the general practitioner are described in detail and fully illustrated. The section on military surgery is based on the author's experience as chief of the operating staff in the field during the Spanish-American War, and on his observations during the Greco-Turkish War. Intestinal surgery is given a prominent place, and the consideration of this subject is the result of the clinical experience of the author as surgeon and teacher of surgery for a quarter of a century. The text is profusely illustrated, in the hope that this feature will add to the value of the book as a guide to practice.

Syphilis: Its Diagnosis and Treatment. By WILLIAM S. GOTTHEIL, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the West Side German Dispensary, etc. Profusely illustrated. Pages 216. Price, \$1.00 net. G. P. Englehard & Co., Chicago. 1901.

This little work on syphilis has been written in the interest of the general practitioner. It contains a concise resume of the latest conclusions regarding the history and treatment of this disease. At the same time the author does not hesitate to record his own views on the various questions which are as yet undecided. The binding and typography are good, and the illustrations are excellent. It is just the book for a general practitioner.

Dose-Book and Manual of Prescription-Writing. With a list of the official drugs and preparations, and the more important newer remedies. By E. Q. THORNTON, M.D., Demonstrator of Therapeutics, Jefferson Medical College, Philadelphia. Second edition, revised and enlarged. Octavo, 362 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. Canadian Agents: J. A. Carveth & Co., Toronto. 1901. Bound in flexible leather, \$2.00 net.

This work is intended to serve as a manual of prescription-writing and a ready reference handbook of doses of official and non-official drugs. In stating the doses, the quantities are given in both the apothecaries' and metric systems. In the compilation of the work the B. P. does not appear to have been consulted, as the

doses are those given in the U. S. P. and other American books on materia medica. The book contains many practical suggestions, and is full of useful data. It should prove useful alike to graduate and undergraduate. To the latter such a book is almost indispensable.

A System of Physiological Therapeutics. A Practical Exposition of the Methods, Other than Drug-Giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Volume II., *Electrotherapy*, by GEORGE W. JACOBY, M.D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children, etc. In two books:—Book II., *Diagnosis, Therapeutics*. Illustrated. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Canadian agents: Chandler and Massey, Limited, Toronto and Montreal. Price, eleven volumes, \$22.00 net.

This volume of Dr. Jacoby's work is devoted to electro-diagnosis and electrotherapy. In the first 200 pages of the book the general subject of electro-diagnosis and electrotherapy is considered, while in the remaining part the use of electricity in surgery and in the specialties is discussed by writers of experience and authority. In addition to surgery, the following are specialties considered: Eye, ear, nose, throat, skin, and gynecology. X-ray-therapy, electrolysis, and cataphoresis also receive due consideration. The sections on each of the specialties is complete in itself. This necessitates repetitions in some parts, but this character appears to us rather to enhance the value of a work of reference. The volume, taken as a whole, comes up to the standard of the first, and they both form an excellent introduction to the system of Physiologic Therapeutics.

The Pathology and Treatment of Sexual Impotence. By VICTOR G. VECKI, M.D. Third edition, revised and enlarged. 12mo, 329 pages. Philadelphia and London: W. B. Saunders & Company. 1907. Cloth, \$2.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

The reading part of the medical profession of America and England has passed judgment on this monograph. The whole subject of sexual impotence and its treatment is discussed by the author in an exhaustive and thoroughly scientific manner. Although no one denies that the sexual function is of the very great-

est consequence to the individual, as well as to society in general, yet the subject of impotence has but seldom been treated in this country in the truly scientific spirit that its pre-eminent importance deserves, and this volume will come to many as a revelation of the possibilities of therapeutics in this important field. The author ventures to assert that in many cases it is a better deed to restore to an impotent man the power so precious to every individual, than to preserve a dangerously sick person from death, for in many cases death is preferable to impotence. It is a well written, scientific work, and can be recommended as a scholarly treatise on its subject.

Simon's Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry, Specially Adapted for Students of Medicine, Pharmacy and Dentistry. By W. SIMON, PH.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition. Thoroughly revised and much enlarged. In one octavo volume of 613 pages, and with 66 engravings, one colored spectra plate, and eight colored plates representing 64 of the most important chemical reactions. Cloth, \$3.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1901.

The call for a new edition of this manual has afforded the author an opportunity to incorporate, as far as practicable, the many important and latest results of scientific progress. At the same time he has complied with the requests of many teachers to present more fully than was done heretofore the parts on chemical physics and on physiological chemistry. As heretofore, the subject has been divided into seven parts. Care has been taken to place in the foreground all facts and data which are of direct interest to the physician, pharmacist and dentist. The first part, treating of chemical physics, has been largely rewritten and much new matter added. Electrolysis and the ionic theory are briefly considered from a modern standpoint, and a colored plate giving the spectra of a number of substances has been added. The last section, giving the principal facts of physiological chemistry, was prepared for the benefit of the medical student in particular. Much new matter has been added to these chapters, and special care has been taken to mention the most modern methods for chemical examination in clinical diagnosis. As an aid to laboratory work, a number of experiments have been added which may readily be performed by students with a comparatively small outfit of chemical apparatus.

DOMINION MEDICAL MONTHLY

AND ONTARIO MEDICAL JOURNAL

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No. 5.

PREVENTION OF TUBERCULOSIS.

It is reported that the Provincial Board of Health is about to adopt resolutions favoring the legislative restriction of spitting on the streets, for the purpose, of course, of protecting the public health. We trust we will not be considered heretical when we express the hope that it will do nothing of the kind. We cannot but believe that the danger of infection from sputum which has dried upon the sidewalk or roadway and subsequently been whisked about by the wind, has been greatly exaggerated. In the unlikely event of the bacilli surviving the exposure to sunlight, the possibility of tubercle germs being present from such a source, in the constantly changing air of any but the most congested and wind-proof thoroughfare, and in sufficient numbers to offer a menace to persons passing along the streets, is nothing short of an absurdity.

But admitting the danger, what then? Spitting is not a vice; nor is it always a habit. It is to a large number of people, practically in perfect health, a disagreeable necessity. They must either expectorate the mucus expelled from the bronchi or posterior nares or swallow it. It is unlikely that the latter will be advocated from either a hygienic or esthetic standpoint. As an alternative we can only think of two methods likely to be adopted should a law prohibiting spitting on the public streets be passed: the majority compelled to spit will expectorate into their handkerchiefs and carry them home with their contained sputum, while a minority might be induced to carry receptacles in their pockets. But aside from the inconvenience of such a practice, and to most minds the filthiness of it, it requires an intelligence above that of

the ordinary individual to accomplish much improvement by this means.

In this connection we note that there is to be a by-law submitted to the ratepayers of Toronto, asking them to vote \$50,000 for the purpose of establishing, in the vicinity of the city, a sanatorium for the treatment of consumptives. No one can deny the necessity of some immediate action being taken to secure some place where patients suffering from consumption may be admitted. Thanks to the daily press, the public have been educated to regard the unfortunate consumptive with something akin to terror. He is an outcast as truly as the leper—refused admission at hotels, boarding houses, or even hospitals, as something unclean and a menace to everyone with whom he comes in contact. We know of no case where a little knowledge has proved a more dangerous thing than in the results following the general appreciation, by the laity, that consumption is communicable. Nevertheless, the public is roused, and if in its excitement it demands the segregation of consumptives for its own protection, then it should be prepared to pay for the immunity so obtained. The whole subject is in a chaotic state in this Province. The practicability of greatly diminishing the deaths from phthisis is admitted by all; but the best method of setting about securing this desirable result has not yet been evolved. We cannot imagine that isolated action on the part of a few municipalities is going to be productive of the best results. The necessity for immediate action is the only reason which can be offered why the taxpayers of Toronto should assume the proposed burden. Before anything is done some general plan should be, if possible, outlined for the whole Province. The Provincial Government should take the initiative, or the Provincial Board of Health acting for them. Politicians say they cannot move in advance of public opinion. It is just possible such a step would not be as advanced as would appear at first sight. Consumption is so prevalent that there are few in the Province who have not felt its affliction, either in their own family or in that of some near relative or friend. Provincial action, even if it necessitated a large outlay, would, we believe, be not only in the public interest, but expedient upon the part of any government.

APPENDICITIS IN BRITISH COLUMBIA.

We publish in this issue an instructive and extensive paper from Dr. Davie, of Victoria, B.C., detailing his results in 106 operations for appendicitis. The result obtained—a death rate of less than 6 per cent.—in such a large series of cases merits appreciation, especially when we consider that the operator has not refused any case on account of its apparent hopelessness.

We agree with Dr. Davie in his opinion that stricture of the lumen is responsible in the great majority of cases for the production of the condition. It is probably true that some narrowing of the canal is necessary before infection of the appendix is possible. Stricture acts in one of two ways: either by favoring the formation of a concretion, which, by its mechanical action injures the mucous membrane and so allows the entrance of infection, or by increasing the pressure within the appendix, so reducing the blood supply as to diminish the normal resistance.

In regard to the time of operation, Dr. Davie assumes the position that as soon as he is satisfied of the diagnosis he operates. There can be little doubt that in the hands of an experienced operator this line of action will give the best results.

Editorial Notes

QUACKS AND AN AMERICAN NEWSPAPER.

A newspaper published in the United States, the *Philadelphia Times*, appears to have taken a step which should commend it to all decent citizens in the district in which it circulates. It has published a statement to the effect that it declines to accept any advertisements that savor of quackery or fraud, and it has defined its position as follows: "The *Times* has drawn a line that it never allows to be passed. It refuses to insert at any price, though they are repeatedly offered, all advertisements of 'diseases of men,' 'female remedies,' 'guaranteed cures,' and such like indecencies, and of massage, clairvoyance, and other cloaks for vice. It equally refuses advertisements which promise something for nothing, that guarantee big dividends or otherwise lure the reader to questionable investments. And it absolutely rejects all objectionable displays and the huge illustrations in advertisements that are offensive to good taste and common decency." We commend the *Philadelphia Times* for the position which it has taken up, and we see no reason why a newspaper that has resolved to keep its columns free from degrading advertisements, should not give the fullest information as to its policy to the public for which it caters. In England there are many newspapers which do not publish advertisements of the class first referred to. These are, as a rule, newspapers circulating in classes of the community where such advertisements would not be tolerated, or would not secure customers for the advertisers. The majority of newspapers in Eng'nd which circulate among the lower middle and lower classes of society, and in circles where the credulous and the vicious are likely to form an appreciable

element, almost invariably contain advertisements of the more disgraceful kind, which the *Philadelphia Times* refuses to accept. It would be utopian for us to hope for the exclusion of quacks' advertisements from newspapers simply on the ground that they contain fraudulent promises of impossible cures, and are the means of swindling simple-minded people. It is otherwise, however, when the advertisements deal with the results of sexual immorality, and more or less openly proclaim the merits of alleged aphrodisiacs and abortifacients. Recent prosecutions have for a time caused a cessation of advertisements of the latter class; those of the former continue, and it will be remembered that it was the vendors of the female pills and concoctions who were prosecuted—not the newspaper editors who accepted their perfectly candid advertisements. Advertisements relating to venereal diseases and infirmities connected with sexual intercourse are in England declared indecent by Act of Parliament when exhibited near the highway or in public urinals. In newspapers their indecency would presumably be a question of fact for a jury, but the police do not institute proceedings in respect of them. That their suppression is desirable none will deny, for they are not only the product of vice and immorality—they are direct incentives. By a coincidence the *St. Louis Courier of Medicine*, from which we quote the manifesto of the *Philadelphia Times*, contains an abstract of a paper read by Dr. George Englemann, of Boston, Massachusetts, before the Gynecological section of the American Medical Association last June, in which he gives rather startling figures relating to the apparent increase of sterility among American women, and the decrease of fecundity among those married women who are not altogether childless. Primary sterility, together with the condition of childlessness due to miscarriage, he declares to be, to a large extent, intentional and artificially produced among women in the United States. We need not discuss in detail his figures or his deductions, but we may point out that conditions such as those which Dr. Englemann declares to exist, and which he naturally deplures, form an appreciable feature in modern social life elsewhere than in America, while they can hardly fail to be largely fostered and developed by the wide circulation of advertisements such as those to which we have called attention, which proclaim and trade upon the sensual aspects of sexual intercourse, encouraging the young and inexperienced to believe that they can indulge and over indulge their passions with impunity, while those who are suffering from their imprudence are lured by specious promises of impossible or criminal "remedies" and are made easy victims to blackmail and extortion.—*The Lancet*.

MEDICINE AND POLITICS IN FRANCE.

A lady writing over the signature of "Grace Corneau" in the *Daily Mail* of October 19th, gives some interesting details regarding the medical profession in France, and the association of its members with politics. At the last election "the large number of fifty-one doctors was elected to the Chamber of Deputies," while "among the members of the Senate a surprising proportion of medical men were also returned." According to the writer, such a selection of legislators is an amazing circumstance, quite incomprehensible to an Englishman, and yet immediately afterwards she adduces reasons, which she characterizes as adequate, why the career of medicine should be looked upon by our neighbors as the "road to rulership." From sunrise to sunset, sometimes far into the night, the country practitioner drives about in his little "cariole," having with him, besides his medicine case, all kinds of books, newspapers, and "revues" (magazines or pamphlets), which he distributes among his patients. At every habitation he stops to chat with the occupants, thus discussing politics from one year's end to the other. "It is not strange," adds Madame Corneau, "that under these conditions . . . the doctor propagates his political opinions, makes himself popular, and becomes . . . the preferred candidate of his 'concitoyens' (fellow-citizens)." Many young men in France regard medicine as one of the surest roads to public life, but it is sad to learn that they are driven thereto because "nothing is more ungrateful than the medical profession in the provinces." A provincial practitioner's fees are described as "pathetically modest." For what are called "office consultations" the peasant pays from 1s. 2 1-2d. to 1s. 8d., and the latter fee, with 5d. a mile for "deplacement," is also the usual charge for a visit. Very frequently, however, the miserly sick man will evade the depletion of his well-filled purse by presenting his attendant with "a lean goose, a tough chicken, or a sack of mediocre potatoes." Incidentally, Madame Corneau relates an amusing story in which mention is made of rather a novel kind of remedy. In Paris there are a large number of "medecins-fonctionnaires" (official doctors), "one of them being attached to the Comedie Francaise. During a performance an actress was suddenly taken ill and fell fainting on the floor. The ticket-taker, who apparently was present, had noticed the medical man's pass among those that had been presented, so "an 'ouvreuse' (a woman usher)" was hastily sent in front to summon him behind the scenes. Arriving post-haste, the first thing the ostensible physician did was to order everyone out of the "loge," where the unconscious patient had been carried. Then approaching her, he shook her gently and

said: "Madame, I much regret, but I am only a hardware merchant. Dr. X—— is out of town, and kindly lent me his pass; what ought I to do for you?" Upon this, so great was her surprise, the lady forthwith regained her senses! — *The Lancet*.

PROFESSOR RUDOLF VIRCHOW.

Professor Rudolf Virchow, whose eightieth birthday was recently so widely celebrated, was born October 13th, 1821, at Schivelbein, a small town in Pomerania. He was educated at the Gymnasium, in Berlin, and in 1839 he began his medical studies. He graduated at the University of Berlin in 1843. The following year he was appointed assistant in pathological anatomy at that institution. In 1846 he was connected with the Charite Hospital, and a year later was appointed regular lecturer in the university. In 1848 he was commissioned by the German Government to visit Upper Silesia to study typhus fever there. In 1849 he became professor of pathological anatomy at Wurzburg, which position he held until 1856, when he was called to be director of the Pathological Institute, in Berlin. He was a member of the Prussian Chamber in 1862, and of the Reichstag from 1880 to 1893. The name of Professor Virchow is inseparably associated with cellular pathology, which he first expounded. He is also well known as a student of archæology, ethnology, and anthropology. The gold medal for science, conferred by Emperor William on Professor Virchow, in connection with the celebration of his eightieth birthday, is possessed by no other member of the medical and law faculties of the University of Berlin, and by only three members of the philosophical faculty, including Dr. Mommsen, the historian.—*N. Y. M. J.*

THE LATE HUGH U. BAIN, M.D., PRINCE ALBERT.

At a meeting of the Medical Council of the College of Physicians and Surgeons, N. W. T., held in Calgary on the 23rd of October last, it was resolved that the following letter of condolence be forwarded to the widow of the late Dr. Bain, and that it be placed in the minutes of the Council :

"We, the members of the Medical Council, received the unexpected news of the death of our late colleague, Dr. Hugh U. Bain, with the greatest grief and distress, each and every one feeling that he had met with an irreparable personal loss; that the Council has been deprived of the services of one of its oldest and most valued members; and that one of the most highly cultured, ablest, and successful members of our profession in the Territories has passed away, to the great sorrow and grief of every medical man who had the pleasure of his acquaintance.

"He was a member of the Council uninterruptedly since 1891,

filling the President's chair in 1892, with great acceptance and satisfaction to his fellow associates.

"He was prevailed on in 1893 to accept the position of Registrar, which he continued to hold until his death a few weeks ago, a position for which he was admirably fitted, and filled for so many years to the entire satisfaction of the Council, and, we believe, with equal acceptance to the whole profession.

"His services as an advisor to the Council were invaluable, and his judgment in matters under discussion was always received with the greatest consideration and weight. He was so constituted as to permit him to appreciate every side of a question, divest himself of prejudice, and arrive at a judicial conclusion, and withal, was so considerate, generous, and indulgent in entertaining the opinions of those differing from him, that he won his way deeply into our affections and confidence.

"We feel that we cannot speak too highly of the qualities of head and heart of our late lamented colleague, and of how deeply we regret his early demise, in the prime of life and of his greatest usefulness.

"We extend to you our deepest sympathy, and we grieve with you for the loss of a faithful and loving husband and companion, and with your children in their loss of a devoted father."

THE HEALTH OF THE KING.

We have every ground for stating that the recent rumors concerning the health of His Majesty the King are entirely without truth or foundation. He is in good health, and has undergone no operation whatever. Some of our readers may have seen statements in certain newspapers so detailed in character as almost to preclude their resting entirely upon journalistic imagination. We are glad to be able to assure them that they need give no credence whatever to the sinister but, happily, untrue stories, the publication of which cannot be too strongly deprecated, since they cause needless and poignant anxiety to the country at large.--(Annotation) *The Lancet*, November 2nd, 1901.

QUERY DEPARTMENT.

We have determined to open a "Query Department," and will try, to the best of our ability, to answer as fully as possible any requests for information from our readers which may be sent the editors, in regard to diagnosis, treatment, or other matter bearing upon the practice of medicine or surgery. We will make his department not only a source of strength to this JOURNAL, but also, we hope, one which will prove of value to our subscribers.

News Items.

TORONTO'S new Smallpox Hospital is nearly completed.

THERE have been over seventy cases of smallpox at Ottawa.

SMALLPOX seems to be getting a hold in some quarters in Manitoba.

THE Toronto Home for Incurable Children now contains eleven inmates.

THERE were only sixteen cases of typhoid reported in Toronto during October.

SMALLPOX is spreading in the Province of Quebec, and has invaded schools and colleges.

COLLECTIONS from Dr. Osler, Dr. Morrow, and Dr. Dawson, have recently been added to the McGill Medical Library.

DR. LAW has been appointed Medical Health Officer of Ottawa, Dr. Robillard having resigned, after a service of over twenty years.

TRINITY UNIVERSITY is to make an appeal for \$500,000; \$60,000 has already been promised by five well-known Torontonians.

THE Medical Department of Toronto University will erect a new building in the Queen's Park to replace the old one on Gerard Street East.

DR. J. E. CRAIK, a graduate of McGill, has been appointed Resident Medical Officer at the Smallpox Hospital at Porter's Island, at Ottawa.

THE insane population of British Columbia, according to late census returns, is put down at 263. Of this number 26 are Chinese and three Japanese.

THE new head-gear or "beret" adopted by the students of Laval University is now in use in all the faculties. The medical students wear red and black.

MCGILL is contemplating raising the medical standard from a course of four years—nine months each session—to one of five years, nine months' sessions.

DR. KIRKPATRICK, who was recently injured at Grand Falls on the Canadian Pacific Railway, has been awarded \$3,500 damages by a New Brunswick Court.

THE annual meeting of the Canadian Nurses' Association was held recently at Montreal. A good year's work was reported, the number of registrations reaching 1,034.

THE Faculty of Medicine at McGill has appointed Dr. G. A. Charlton, of Montreal, and Dr. H. G. Wooley, of the Johns Hopkins University, research fellows in pathology.

THERE were 531 less deaths in September in Ontario than in the corresponding month of 1900, and this, with 99 per cent. of the population reporting. The total number was 1,959.

DR. J. D. LAFFERTY, of Calgary, Alberta, has been appointed Registrar of the College of Physicians and Surgeons of the North West Territories, to replace Dr. Hugh N. Bain, deceased.

THE Board of Health of the Province of Quebec has instructed all municipalities to see that the heads of industrial establishments and the directors of educational institutions require all persons under them to have been properly vaccinated.

DR. G. A. CHARLTON, who has just been appointed to assist Professor Adami at McGill, is an Ontario boy, having been born in the County of Brant. He is a graduate of the Ontario Agricultural College, and also of the Ontario Veterinary College.

THE Fathers of the Holy Cross have donated a fine site near Montreal for the purposes of a consumption sanitarium. A wealthy citizen has offered to endow the institution sufficiently for running purposes provided the Provincial Government erect the buildings.

THIRTY graduating nurses were recently presented with their diplomas at the Toronto General Hospital. Since the Training School was started in 1883, 347 have received certificates. It may be interesting to the editor of a society periodical in this city that ninety-three of this number have been married.

A CHINAMAN recently instituted an action for \$1,000 damages against the Health Department of Vancouver on account of an inspector breaking into his house while in the discharge of his duties, the object being to inspect "the Ranch" under the lodging-house by-law. The action was not sustained.

THE National Sanitarium Association announces that the free hospital for poor consumptives will shortly be ready for the reception of patients at Gravenhurst. It is understood that a fine site has been purchased near Toronto for the advanced cases at a cost of \$30,000. A research laboratory, the gift of the late Mr. W. E. H. Massey, will be erected at the Gravenhurst institution.

THE announcement by cable that a Canadian medical graduate has been refused permission to serve on the British medical staff in South Africa, raises the question as to what has become of the promised measure introduced into the Imperial House, which was to admit the graduates of recognized colonial medical colleges into the Imperial civil, naval and military services.

PRECAUTIONS against the introduction of bubonic plague are being taken by the Dominion health authorities. Dr. Montizambert has issued a circular letter to all steamship companies which will require a statement from the medical officer of each vessel arriving at a Canadian port, of the temperature of each passenger taken within twenty-four hours of landing at any of our ports.

LICENSE TO PRACTISE IN THE YUKON TERRITORY.—The fee for registration is \$100, and the annual tax from \$20 to \$50, according to the option of the Medical Council, which consists of five members. Those whose names are on the Register of Great Britain and Ireland, or any of the following provinces are not required to pass any examination: Manitoba, Quebec, Ontario, and the North-West Territories. There are at present forty names on the Register, but all are not practising in the Yukon Territory.

ONTARIO'S BIRTH-RATE.—The Report of the Committee on Vital Statistics recently presented to the Provincial Synod of the Anglican Church at Montreal, especially as regards the Province of Ontario and its birth-rate, is an interesting one. It would seem that Ontario has a birth-rate lower than any European country, but not quite as low as the State of Michigan, or even the State of New Hampshire. The Committee considers that one of the prime causes operating to decrease the birth-rate in this Province, is "the use of preventives, information as to which is spread far and wide by advertisements in the public press and otherwise."

General News

THE CRAIG COLONY PRIZE FOR ORIGINAL RESEARCH IN EPILEPSY.

Dr. Frederick Peterson, 4 West Fiftieth Street, New York City, offers a prize of \$200 for the best original unpublished contribution to the pathology and treatment of epilepsy. Originality is the main condition. All manuscript should be submitted in English. The prize is open to universal competition. Each essay must be accompanied by a sealed envelope, containing the name and address of the author and bearing on the outside a motto or device, which is to be inscribed also upon the essay. All papers received will be submitted to a committee, consisting of three members of the New York Neurological Society, and the award will be made upon its recommendation at the annual meeting of the Board of Managers of the Craig Colony, October 14th, 1902.

SOUTHERN MANITOBA PHYSICIANS ORGANIZE.

At Napinka, Manitoba, on October 9th, a meeting was held of the physicians of that Province for the purpose of forming an Association, the bounds of which should include the three southern lines of railway west of Winnipeg and the Pipestone branch. The election of officers resulted as follows: President, Dr. B. J. McConnell, of Morden; Vice-President, Dr. F. L. Schaffner, of Boissevain; Secretary-Treasurer, Dr. T. J. Lamont, of Treherne; Executive Council, Dr. Riddell, of Crystal City; Dr. Loughheed, of Glenboro'; Dr. McEown, of Hartney; Dr. Brown, of Carman, and Dr. Cleghorn, of Baldur.

PHYSICIANS HONORED BY YALE.

The University of Yale conferred, at its recent bi-centennial celebration, the honorary degree of LL.D. upon Dr. John Shaw Billings, director of the New York Public Library; Dr. David White Finlay, professor of the practice of medicine in Aberdeen University; Dr. William Osler, of Johns Hopkins University; Dr. Ira Remsen, President of Johns Hopkins University, and Dr. Wilhelm Waldeyer, professor of anatomy in the University of Berlin.

TUBERCLE IN CIGARS.

Dr. Klemperer, of Berlin, who has found tubercle bacilli in cigars which had been manufactured by cigar-makers at their homes, advises smokers to use cigar-holders.

The *Electro-Therapeutics*, a journal devoted to medical electricity and radiography, has been announced by its publishers, A. L. Chatterton & Co., New York City. Dr. William Benham Snow is to be the editor.

A PHYSICIAN'S business league has been organized at Victor, Col., comprising membership from all over the district. It is for the purpose of social and intellectual intercourse and for the special advantage of the medical fraternity in protecting themselves against bad debtors.

THE Physicians' Mutual Aid and Protective Association has been organized at Muskegon, Mich. The object of the Association is to prevent imposition on physicians, and to enforce payment of bills.

Special Selections

THERAPEUTICS OF PEPTO-MANGAN, "GUDE."

BY DR. LUDWIG POHL, CITY PHYSICIAN OF VIENNA, AUSTRIA.

It is about five years ago that I first had occasion to test Gude's Pepto-Mangan. The curative results obtained from its use were so surprisingly good that I decided to thoroughly experiment with this preparation on my abundant clinical material, the outcome of which is reported in this article.

The number of remedies introduced every year into the market are so numerous that for this reason alone it would be impossible to employ all of them, even if only experimentally, or to make a careful choice. Pepto-Mangan appealed to me strongly in the first instance for reasons that I shall explain. Although inclined to think well of this preparation from the first, I would remark that my observations were instituted without bias, and that my investigations were carried out in a strictly scientific manner.

I was led to make a thorough study of this preparation by the subjective statements of the patients that it never caused the least disturbances, the objective evidences of improvement, and, besides these, by the following considerations.

According to the views of many authors, iron preparations

to be efficient, must exert not only a local but distant, that is, general effect. In chlorosis and in many severe cases of anemia chalybeates are said to remove the hydrogen sulphide, formed frequently in large amount in the alimentary tract, by the combination of the iron with the sulphur. This removal is necessary, because hydrogen sulphide, if present in too large quantity, renders impossible the absorption of the iron in the food by precipitating it in the form of sulphide of iron. It is known, however, that not only iron, but also manganese is adapted in a high degree for taking up hydrogen sulphide. Manganese therefore acts as an auxiliary to iron in this respect.

Another circumstance was decisive for me. A large number, almost all, of the officinal ferruginous preparations are absorbed only to a slight extent when administered internally. This can be maintained on the ground of the fact, that in animals and human beings positive evidence of the entrance of these preparations into the blood cannot be obtained if the persons experimented with have not intestinal catarrh or have not received excessive doses of iron. The more the preparation approximates to the form in which iron is contained in the food, the more likely it is to be absorbed. The peptonizing of the iron preparation is therefore of decided advantage, as its absorbability and assimilability is thereby enhanced to a considerable degree. Aside from this, the peptone combination is adapted for exerting the systemic effect. This general action of iron preparations only takes place if after absorption they undergo conversion into hemoglobin. *Hence this conversion is only possible in the case of preparations which contain iron in form of an organic combination.* They will then act even when containing a much smaller percentage of absolute iron.

It was therefore the chemical constitution of the preparation which appealed to me, and which induced me to undertake extensive experiments.

The cases in which I employed Gude's Pepto-Mangan comprised chiefly the poorer class of people. I mention this particularly, because with these patients it is difficult or well-nigh impossible to pay attention to the hygienic conditions, or to consider the dietetic side of the treatment. Notwithstanding this, the results were favorable. Of course, they were most satisfactory in the case of those patients who were also able to carry out the hygienic and dietetic regulations.

Numerous cases of chlorosis, anemia, neurasthenia, and hysteria, as well as two cases of malarial cachexia, were submitted to careful and thorough observation.

In many cases determinations of the bodily weight, measurements of the blood pressure, estimates of the hemoglobin percentage, and blood counts were made.

As regards the bodily weight, I observed in sluggish, obese, chlorotic patients, a reduction in flesh as well as improvement of the general state. The high absorbing power of the preparation and its ready conversion into hemoglobin increases the oxygen capacity of the blood; *pari passu* with this there is an improvement of the metabolism, the oxidation, which takes place at the expense of the non-nitrogenous elements of the body, that is, the adipose tissue. In the case of lean persons I combine with this treatment rest in bed for several weeks, to which may be ascribed the increase of bodily weight observed.

There was a constant change in the conditions of blood pressure. In almost all the chlorotic patients the blood pressure, estimated by Basch's sphygmomanometre, became considerably higher. In many of my cases I noted improvements in the blood pressure of 40 to 60 millimetres in the course of four weeks. Besides this, the fluctuations of blood-pressure, so frequently observed during changes of position, disappeared; the pulse frequency diminished considerably; and the subjective disturbances connected with the circulatory apparatus, especially the troublesome palpitation of the heart, subsided. I would remark that this amelioration occurred under the use of no other remedy in so short a time as under that of Gude's Pepto-Mangan.

In judging of the value of an iron preparation, conclusive evidence is afforded by estimates of hemoglobin and blood-counts. To determine the hemoglobin I employed Fleisch's hemoglobino-meter, and as a solvent a 0.6 per cent. sodium chloride solution; for blood-counts I made use of the apparatus of Thoma-Zeiss and a 2.5 per cent. solution of potassium bichromate for the red blood corpuscles; the white were not counted.

To demonstrate the changes in the hemoglobin and in the number of red corpuscles, I report here the history of a girl, 16 years old, affected with marked chlorosis. The disease was of almost two months' duration and attended with general functional disturbance. There were present mental anxiety, a disinclination to work, to enjoy life, or move about, marked muscular weakness, cardiac palpitation, difficulty in breathing, loss of appetite, headache, vertigo, restless sleep alternating with sleeplessness. The patient came from healthy parents, had previously been always healthy, and menstruated for the first time in her fifteenth year, but scantily and irregularly. Marked palor of the skin and mucous membranes was noted; the lungs were normal.

The area of cardiac dulness was enlarged toward the right side; blowing murmurs were heard over all the valves, and a bruit over the jugular vein. The radial artery was very small and soft; the pulse frequency 110. The spleen and liver were normal in size; there were no glandular swellings; the bones were not tender to pressure. The urine contained no abnormal constituents.

The percentage of hemoglobin in the blood was 35 per cent.; the number of red blood cells 2,700,000 to the cubic millimetre. The white cells were not increased; otherwise the condition of the blood was normal.

The treatment was as follows: The patient was advised to live on a mixed diet, with an abundance of fresh air and moderate out-door exercise. She also took three teaspoonfuls of Gude's Pepto-Mangan daily.

The increase of hemoglobin and of the number of red corpuscles is shown in the following:

	HEMOGLOBIN.	RED CORPUSCLES.	
At the end of 1st week	45%	3,200,000	} To the Cubic Millimetre.
" " " 2nd "	60%	4,100,000	
" " " 3rd "	70%	4,500,000	
" " " 4th "	75%	4,900,000	

Before proceeding with the history of this case I would emphasize the fact that the number of red blood cells increased more than one and one-half million, while the increase of hemoglobin amounted to more than 100 per cent. *Such marked improvement* in the condition of the blood under the treatment with Gude's Pepto-Mangan *was not unusual*, but rather *the rule in chlorosis*. And it may be assumed with certainty that the above described effect is attributable to the high absorbability of this preparation as compared with the numerous other chalybeates; and, further, to the combined action of iron and manganese upon the blood-forming organs. I would add that numerous investigators, such as Hannan, Kugler, and many other authors, have called attention to the important part played by manganese both in the blood and as a hematogenic remedy.

In the case under consideration there was a perceptible improvement in the patient's subjective and objective state. The existing disturbances subsided gradually; the cardiac palpitation, loss of appetite, and sleeplessness disappeared, and after four weeks' treatment she was discharged cured.

It is not the purpose of this report to detail numerous histories of cases, and I shall content myself with briefly mentioning that I have treated more than 100 cases of chlorosis with Gude's Pepto-Mangan, with as good results as those above described, except that in some instances the results did not appear promptly.

The fact cannot be sufficiently emphasized that during the entire course of treatment the remedy did not have to be discontinued on a single occasion, although this must be often done with other ferruginous preparations. I never heard a complaint that the preparation was not well tolerated; on the contrary, the patients stated that they did not experience the slightest disturbance even during its prolonged use, and that it acted mildly, was well borne, caused no disturbance of digestion, but rather promoted the latter, and was free from any disagreeable taste.

I have previously mentioned that it may be positively assumed that Pepto-Mangan "Gude" stimulates the hematopoietic organs to increased activity. Numerous blood findings discovered casually by me, the appearance of the so-called immature forms of blood corpuscles, constrain me to take this view. Of much greater importance is the circumstance, however, that in numerous diseases of the blood occurring in connection with the lymphatic and blood-making organs, I have derived excellent results from the use of Gude's Pepto-Mangan.

Decided amelioration in the leuchemic state, arrest of the process in severe cases for a long time, reduction of the glandular swellings, improvement in the relation between red and white corpuscles, were noted by me in several cases under my care.

In my opinion, the value of ferruginous preparations in neurasthenia and hysteria has received too little consideration. The success of a rational therapy depends upon an effective application of all methods of treatment and remedies which enable us to combat the entire group of symptoms. An easily absorbable ferruginous preparation is of incontestable benefit, and I believe that Gude's Pepto-Mangan occupies a prominent place in this connection. It is not my intention here to institute comparisons with various iron preparations. I would emphasize, however, for reasons already mentioned, and which are especially based upon the composition of Gude's Pepto-Mangan, that I prefer the latter preparation, and have employed it successfully in all conditions where it is necessary to improve the quality of the blood.

In conclusion, I would mention that I have obtained excellent results from Gude's Pepto-Mangan in two cases of severe malarial cachexia. In the one case the treatment occupied three weeks, in the other five weeks. Both cases were cured. *It is of interest that in the first case in which a malarial attack had not occurred for some time, a typical paroxysm with rigor, fever and sweats developed.* After one week's treatment the attack failed to recur, and for this reason I was unable to search for plasmodia. I am not disposed to overestimate this occurrence, nor to make it

the subject of theoretical reflections. I am decidedly of the opinion, however, that this attack is attributable to an influence of Pepto-Mangan "Gude" upon the spleen.

In all particulars Gude's Pepto-Mangan is an excellent preparation, which bids fair to occupy a permanent place in the materia medica. I would be pleased if through this article I had directed attention to this valuable remedy, and incited others to undertake experiments and report their observations.—*Aerztlicher Central Anzeiger*, Vienna, Austria, Sept. 20th, 1899.

LECITHINE.

Lecithine (*λέιθος*, derived from the Greek word meaning yolk of egg) found in semen, brain matter, nerve tissue, the leucocytes of the blood, the yolk of egg, and many other sources, was first discovered by Gobley and studied later by Strecker. Its therapeutical value as an assimilable form of organic phosphorus, has been acknowledged by a number of authorities who have given this subject attention. Chemically, lecithine is found to be made up of certain *acid glyccro-phosphates*, and it is unnecessary to add that the phosphorous of the human organism exists as glyccro-phosphates.

The first important studies connected with the role of lecithine in nutrition are due to Danilewski. In 1897, the "Societe de Biologie de Paris" received on this subject an extremely interesting communication from Charrin. Selensky (a pupil of Danilewski), has been able to show that its action on the red corpuscles is remarkably beneficial. Numerous authorities have since studied the physiological effects of lecithine, and all agree that it assists nutrition, favors assimilation of nitrogen and phosphorus compounds, so essential to the economy. The conclusions of Desgrez and Ali Zaky recently published by the "Societe de Biologie" are on the same lines, so also are those of Gilbert and Fournier, who treated a number of phthisical and neurasthenic patients with results showing improvement in appetite, weight, strength, and general health.

Lancreaux, Gilbert and Fournier (*Bull. de l'Acad. de Med. de Paris*) have used lecithine in the various stages of *epuise-ment* occurring in diabetics, with the happiest results, particularly in the more advanced stages, with a daily depreciation of the patient's weight and vitality.

We are therefore justified in concluding that lecithine is worthy of trial as a means of checking the drain on the vital

nutritive physiological functions, caused by pathological conditions.

There is some difficulty in preparing and preserving lecithine in a pure and active state; this, however, has been overcome by Vial of Paris, by diluting it with oil and administering it in capsules, representing one grain each. By these means the disagreeable taste of lecithine is avoided, and its active properties preserved.

One capsule three times a day with meals is the usual adult dose.

M. Serono, of Turin, has also used subcutaneous injections of lecithine on the human subject.

CREMASTERIC REFLEX IN SCIATICA.

Gibson (*Medical News*, June 15th, 1901) has called attention to a remarkable exaggeration of the cremasteric reflex in cases of sciatica, not alone in those of the more serious neurotic type of the disease, attended with muscular wasting and alteration of the electric reactions, but also in those of the less grave neuralgic variety. The reflex was obtained not only by gently stroking the skin on the inner aspect of the thigh, but also and much more readily by firm pressure over the lower and inner part of Scarpa's triangle, whose sensory nervous supply is derived from the internal cutaneous branch of the anterior crural nerve. The last procedure was in some instances followed slightly later by a less distinct contraction on the opposite and unaffected side. The exaggeration of this reflex was found in cases not exhibiting much increase in the knee-jerk, as well as in others with great augmentation of myotatic irritability. In some instances the plantar and gluteal reflexes were exaggerated equally with the cremasteric; in others the last was marked, while the former were scarcely elicitable. In no instance was the increase in the cremasteric reflex associated with dorsal flexion of the toes on irritation of the sole of the foot. In explanation of the phenomena described it has been suggested that in the presence of sciatica the segments of the cord above the level of origin of the sciatic nerve from the lumbo-sacral cord—including therefore the second lumbar, in which the cremasteric reflex centre and also the knee centre are believed to be situated—are in a state of excessive irritability, while the segments below, in which the plantar, the gluteal, and the ankle centres are situated, are but little if at all influenced.—*Therapeutic Gazette*.