

# Tubercular Conditions in the Abdomen

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HAVING had considerable experience in the treatment of cases of abdominal tuberculosis I felt that perhaps a few points as to the classification and the outlook in these cases might be of interest. Glandular tuberculosis is the common form of infection in children. Much of such glandular infection is bovine in origin. The mesenteric glands are almost always involved in general tuberculosis. Many cases occur in which tuberculosis of the mesenteric glands are the outstanding features, and symptoms from the outset are primarily and mainly abdominal. This condition is usually not found during the first six months of life, but usually comes on during the next four to six years and during the period when cows' milk is the main article of diet. The symptoms are generally wasting, drowsiness, listlessness and usually some swelling of the abdomen. The abdomen has a doughy feeling on palpation and on careful examination glands may be made out in the region of umbilicus. There is great wasting, child perspires freely. Treatment for these cases is essentially medical; surgical interference is contraindicated. In young children, if recognized early enough and placed under proper treatment the disease may be checked. The first thing to do is to attend to the general surroundings of the child, put child in well ventilated room, absolute rest in bed, plenty of sun-light and the abdomen exposed directly to the sun's rays during the summer. A firm broad binder is placed around the abdomen to support it and to keep it as much as possible at rest. Stomach and bowels must be attended to so that the child can take and digest the suitable quantity of good food; if diarrhoea is troublesome it must be corrected at once. Child must have plenty fatty foods, cod liver oil and iodide of iron are of great value. The only condition with which this condition may be confused is that of coeliac disease, but in coeliac disease there is such a marked prominence of the abdomen and the passage of large fatty stools that the distinction in this may soon be made.

Tuberculous Peritonitis may occur in three forms—Ascitic, Loculated and Obliterative. In the ascetic form the tubercles are scattered over the whole peritoneum which is fairly free of adhesions. The abdomen becomes distended at first, it is tympanitic and later free fluid can be made out. In some cases the amount of fluid collects with great rapidity and the sudden stretching of muscles may cause considerable pain. If the fluid becomes excessive there is pressure on the inferior vena cava with oedema of the legs.

The following case fairly well illustrates this particular form.

Master Roddie Mac, Case No. 37, 956, age 11.

This boy had been complaining of weakness for several weeks, abdomen examined and found fairly normal with the exception of some slight tenderness in region of umbilicus. Patient had night sweats and temperature of

101-102 in the evenings and a fairly rapid pulse. In the course of several days it was found that the abdomen was greatly distended with fluid, patient quite ill and evening temperature of 102 and occasionally 103. He was admitted to the Hospital on April 25th and he appeared so ill that it was thought wise to treat him medically. Medical treatment was persisted in until May 7th, when it was found that he was going down hill so rapidly that it was decided to open the abdomen. This was done under local anesthetic of novacaine and a tremendous amount of clear straw colored fluid escaped. No manipulation was done within the abdomen and all fluid possible was expressed from abdomen and the wound was tightly closed. Several hours following operation patient became wildly delirious and had to be restrained. In the course of an hour or so he was again normal; this condition was attributed to possibly an excessive amount of novacaine. The result following this was almost phenomenal, the temperature in the course of a few days became normal, pulse dropped down to 80, night sweats disappeared, appetite improved and patient was discharged on July 3rd with no trace of any fluid in the abdomen and patient perfectly well and since that time has shown no further sign of trouble, a period of four years.

Second case that of a young Italian, Case No. 34, 591, coal miner, age 18. For a period of three weeks patient treated at home for loss of appetite, temperature varying from 99-101, night sweats, vague abdominal pains and rales heard over the upper part of right lung down to the level of the 4th rib anteriorly with dullness on percussion. Was admitted to the hospital on December 17th with a diagnosis of tuberculosis of the right lung and tuberculous peritonitis of the ascitic form. The abdomen was greatly distended and there was no question of presence of free fluid in abdomen. It was decided to treat this case medically with absolute rest in bed and extra nourishment; in spite of this his condition rapidly became worse, the lung condition appeared to extend and abdomen became more distended with considerable swelling in the limbs and everything pointed to the patient eventually dying from a possible miliary tuberculosis. On February 5th it was decided to open the abdomen by means of right rectus incision and a great amount of greenish fluid escaped; peritoneum greatly thickened and omentum rolled up in a large thickened mass, no further manipulation was done and the abdomen was closed. Following this, almost immediately there appeared to be an improvement in patient's condition, no more fluid formed in abdomen and it became quite soft and no tenderness; the lung condition also seemed to improve, temperature gradually dropped to normal and he was discharged on April 11th, 1930 with a normal temperature and healing lungs. He returned to his home in Italy and reported one year later that he was well and had no further trouble.

These cases help to show that the opening of the abdomen in the ascitic form of tuberculous peritonitis has its place in the treatment of the disease.

In chronic cases tubercles are larger and more fibrotic than in the acute. The peritoneum is thickened and the mesentery is stretched. In this form there may be very little fluid present and it frequently starts as a typical attack of appendicitis in males or tubal condition in the female. This type is well borne out by the following case.

Frank Doyle, Case No. 23,751, age 20, Telegraph Operator, Newfoundland.

Was sent to the hospital with a diagnosis of appendicitis. Gave history that two months previously he began having vague pains in right lower quadrant

of abdomen. One month before admission he developed what was diagnosed as pleurisy in the right side; following this he had what were described as several definite attacks of appendicitis. On admission to hospital patient's pulse and temperature were normal, the abdomen appeared full but no fluid was made out. Definite tenderness was made out in the region of McBurney's point and patient readily placed his finger on that point as the seat of all his trouble. Examination of chest at that time showed right side percussion slight dullness to the 5th rib and to 6th spine, marked dullness from 5th to 7th rib and 6th to 8th spine, breathing low, rough and vesicular gradually diminishing towards base where the breath sounds were absent especially at back; vocal resonance increased at apex front and back; on coughing fine rales found to 8th rib and from 5th to 7th spine. Left side slight dullness to base, breathing roughened, diminished towards base. On coughing fine rales heard at base. Diagnosis, tuberculous pleurisy with involvement of the lung. This boy was operated upon on July 14th, 1924, right rectus incision, peritoneum found very much thickened and inner surface studded with tubercular nodules; practically no fluid found in the abdomen. The appendix was greatly swollen, congested and studded with tubercular nodules; removed, and on account of the great difficulty of freeing appendix from its adhesions it was thought wise to insert a cigarette drain which was a great mistake, as following its removal a sinus persisted that required three operations during the next year before this sinus was obliterated. This shows that in all these cases the abdomen should be tightly closed. Following each of these secondary operations the patient appeared to have a flare up for a short time. Examination of this boy at the end of a year showed him to be in excellent physical condition, his lung condition had practically cleared up and has been checked up at least once a year since that time and no trace of trouble can be found in the abdomen or no signs of trouble in lungs.

In the loculated tuberculous peritonitis a mass of tuberculous material may break down and form a suppurating focus which may erode the intestine or open at the umbilicus as an abscess. One such case as this was treated by me in 1915 that had previously been opened in another hospital. She developed an abscess of the umbilicus followed later by fecal fistula and died of miliary tuberculosis.

Tuberculosis of the bowel occurs in two forms, hypertrophic and the ulcerative variety. In the hypertrophic variety there is an excessive growth of tissue in the bowel wall itself, or in other words, the new growth of tissue is in excess of the destruction of tissue. This commences in the iliocaecal region, spreads upwards along the ilium and downwards along the caecum; occurs in young adults generally. Owing to formation of new tissue in the submucosa the mucus membrane is folded and nodular and projects into the lumen of the bowel in the form of small papillomatous masses. Ulceration is not common in this variety, but there is great narrowing of the bowel and finally intestinal obstruction may develop or death result from generalized tuberculosis. Case history illustrative of this form.

Master Mac, age 9; began complaining of pain in abdomen in June, 1934. Pain referred chiefly to the umbilicus and right lower quadrant of the abdomen. Abdomen fuller than normal. Diagnosed as tubercular peritonitis, put to bed and treated at home but showed no improvement; gradually going down hill. Admitted to hospital August 15th, 1934, kept perfectly quiet in bed, no improvement; temperature varying between 99 and 102; wasting; perspired

freely especially at night. No fluid made out at any time in the abdomen and palpation of abdomen showed definite mass to the right of umbilicus which was tender to palpation. At the end of one month decided to open abdomen; mid-line incision; parietal peritoneum not involved. On exploring abdomen great mass of mesenteric glands were found; a great part of ascending colon and a large section of ilium was found greatly thickened and firmly bound down. The abdomen was closed as it was not considered advisable to attempt any operative interference. This child died three weeks later of tubercular meningitis.

Ulcerative tuberculosis common in children and young adults. Common site lower end of ilium but may extend over a great length of bowel involving both ilium and caecum. The infection may be due to the ingestion of the bacilli in tuberculous milk in the case of children; in adults usually secondary to the swallowing of tubercular sputum. Solitary glands are first infected, the ulcers spread along the wall of the bowel in an encircling manner to form what are known as girdle ulcers. The edges of the ulcers are ragged, irregular and often undermined. Adhesions to the surrounding parts are common and this with the inflammatory thickening of the serous coating renders perforation uncommon; however, perforation may take place as shown in the accompanying case. Healing takes place with great contraction and gives rise to marked obstruction, and maybe many strictures of the intervening segments of bowel show dilatation.

Gerald Mac, age 22. Seen by me in June, 1932 while on a fishing trip to Newfoundland, with what looked like a very definite attack of appendicitis; so acute was the attack that he was sent at once to a hospital. Was operated upon in one of the hospitals in Newfoundland and make a fairly good recovery. Returned home but for the next two years had recurrent attacks of abdominal pain. Continued at his work as farmer and apparently in fairly good health, although his parents say that he was not able to do the work he did previously. He was admitted to the hospital in August, 1934 with a history of developing tonsillitis three months previously; he had lost strength and appetite was poor, and he had lost weight rapidly. He found that the throat was very painful on swallowing. On examination two large reddened tonsils found; the anterior pillar appeared drawn completely over top of tonsil; the tonsils were removed and found to be very much diseased; the pillars were greatly thickened and all structures appeared thickened and oedematous. The pathological report; both tonsils shows an extensive fibro caseous tuberculosis with many caseous follicles showing giant cells. The lungs were carefully examined and nothing could be made out. X-ray of the lungs showed them to be exceptionally clear with the possibility of an old lesion at the right apex. At a loss to know what to do for the patient, advised him to return home and he was put on general tubercular treatment. Shortly after he returned home he developed laryngitis. He continued to go down hill and began complaining of severe abdominal pain with diarrhoea movements of six to eight daily. He returned to the hospital on November 10th with a still further loss of weight and running a temperature between 99 and 101 and complaining of almost continuous abdominal pain and the passage of frequent gray liquid stools. Examination showed ulceration along the vocal cords and he was put on treatment. He improved but the bowel condition showed no improvement. Two weeks later he developed a severe abdominal pain and died in the course of a few

hours. Partial post-mortem was done—the abdomen opened and a great quantity of bowel contents was present in the abdomen with a perforation of the bowel. The whole terminal ilium extending for possibly ten feet was one mass of ulceration, irregular in shape and some of them encircling the wall of bowel. Practically all these ulcers extended through to the serous coat and they ruptured with the least traction. No attempt at healing had taken place in any of them. Pathological report. The bowel reveals many tubercular follicles in the submucosa also tubercular ulceration with perforation—the mesenteric glands are enlarged and caseous and show a definite caseous tuberculosis.

The point in this case is whether the original attack of appendicitis was a tubercular condition also whether the ulceration was due to the swallowing of infected sputum from the tonsils for the past two years.

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## CORRECTION

In the December number of the BULLETIN there was published an account of the tour of the President of the Canadian Medical Association throughout Canada. In describing the meeting at Halifax the report reads as follows:—

“On Monday, November 5th, at a meeting attended by close upon one hundred in the city of Halifax, it may be said that the proposal was discussed at great length by a number of men. In every single instance, heartiest approval was expressed for national unity and consciousness; and, although the Medical Society of Nova Scotia is more than eighty years old, the group unanimously carried the resolution favouring the adoption in Nova Scotia of the name, ‘Canadian Medical Association, (Nova Scotia Branch).’”

As this statement is misleading, the Editors take this opportunity to quote from the report of Dr. C. W. Holland, Secretary-Treasurer of the Halifax Branch of the Medical Society of Nova Scotia, which was published in the November, 1934, edition of the BULLETIN. From Dr. Holland's report the resolution passed by the Halifax Branch was as follows:—

“Whereas Dr. McEachern, President of the Canadian Medical Association has placed before the Halifax Branch of the Medical Society of Nova Scotia, a proposition that the various Provincial Medical Associations become branches of the Canadian Medical Association, AND,

Whereas the advantages of the proposition to the profession at large have been set forth:—

Therefore: Resolved that the Halifax Branch of the Medical Society of Nova Scotia approves of the principle with a view to submitting it to the Medical Society of Nova Scotia for their consideration and action.

Further resolved that the Executive of the Canadian Medical Association be requested to submit a well studied plan by which this may be brought into effect.”

In view of the fact that this matter will come up for discussion at our annual meeting at Sydney, the Editors have considered it proper to make this correction.

# Two Common Surgical Diseases of the Rectum

## Hemorrhoids and Fistula in Ano.

L. R. MEECH, M.D., North Sydney.

**H**EMORRHOIDS or piles have been defined as varicose veins of the rectum and anal region; and by varicose is meant unnatural permanently dilated, tortuous and elongated veins. Hemorrhoids or varicose veins of the rectum differ from varicose veins as we ordinarily know them; for instance in the legs. The complete structure of a hemorrhoid consists of an artery and a vein, the artery one of the terminal branches of the superior hemorrhoidal.

In recent years it has been established that not all hemorrhoids come from one venous system; those on the inside (i.e. inside the external sphincter, and hence covered with mucous membrane) are related to the inferior (external) hemorrhoidal vein, while those on the outside surrounding the anal orifice may contain dilated, elongated, tortuous branches of the skin veins.

These points are of little more than academic interest, however, for all three hemorrhoidals have a free anastomosis. The general circulation is represented through the inferior (external) hemorrhoidal via the internal pudic into which it drains, and through the middle hemorrhoidal via the internal iliac, or a branch; but also the portal system through the superior (internal) hemorrhoidals via the inferior mesenteric into which they empty.

Hemorrhoids or piles do not just happen to be anywhere in relation to the anal canal; there are *three primary piles: the right anterior, the right posterior and the left lateral*; the other piles we see about the anus are secondary to the primary piles. This anatomical distribution is important to remember in the proper treatment of piles or hemorrhoids.

For the purpose of study hemorrhoids are classified as: *internal, external and intero-external*, according to their relation to the external sphincter. They may also be designated as *Inflamed, Thrombosed, Ulcerated and Gangrenous* terms which are self explanatory.

*Symptoms*:—The most characteristic symptom of hemorrhoids is *bleeding*; although this is confined to the internal variety, it occurs during or just after defecation; its bright red color and distribution only on the surface of the stool serve to distinguish such blood from that escaping higher up in the intestinal canal, in which case the blood is more liable to be dark brown and mixed with the feces. Internal hemorrhoids may cause no discomfort unless during attacks of constipation and diarrhoea; they may become swollen, causing a constant sense of fullness and varying degrees of *pain*, and *itching, paresthesia*, and *throbbing* in the perineum, and may even prolapse. If they become inflamed the pain is intense. A sudden large hemorrhage might exsanguinate the patient, or what is often just as bad, insidious, repeated small hemorrhages may give rise to a profound grade of *secondary anemia*. Gangrene of the rectum has been seen following long standing, prolapsing hemorrhoids.

*Treatment*:—The treatment varies with the pathological condition found. Mild cases demand little more than regulation of the diet, and of the bowels, through gently acting laxatives, if necessary. Prolapsed piles, if they fail to slip back themselves, must be replaced and such cases demand scrupulous attention to cleanliness, irrigations being of value here. Astringent ointments or suppositories are useful or local applications, but inflamed hemorrhoids usually require more careful attention. In the case of inflammation, the patient should rest in bed with the hips elevated, and apply ice bags or dry heat to the perineum; if this fails to relieve after a reasonable trial, the doctor can easily do so by incising the thrombosed pile and turning out the clots.

The operations usually employed for hemorrhoids are:—ligature and excision, clamp and cautery, injection and excision of the pile bearing area, (the latter operation is now rarely if ever done). The ligature method is simplest and gives as good results as any other method.

I would like to say a word about the injection treatment of hemorrhoids, as this is at the present time a well recognized method of treatment in certain cases.

The solution for injection which I have been using is a 5% carbolic in almond oil; a special speculum with a removable side piece is desirable. Regarding the injection itself, no anaesthetic is necessary; inject above the pile bearing area and no pain will be caused; inject between the mucosa and muscular coat, and until the blood vessels stand out prominently; 5-8 cc. is usually the amount injected. Only inject one area, or at most two areas, at one sitting. *Never inject anteriorly*, for you may set up trouble in the prostate in man, or may cause a recto-vaginal fistula in women.

There are certain contra-indications to the injection treatment, for example, anything complicating piles as, inflammation, fistulae, fissure, sloughing piles, marked pectinosis, or if there is a marked prolapse.

In bleeding and in moderate prolapse, you may get a good result. Above all never promise a cure.

### Ano-Rectal Fistulae.

With the exception of the fistulae produced by penetrating wounds from without, and of those resulting from carcinoma or fibrous structure of the rectum, every ano-rectal fistula is preceded by an abscess which is the outcome of infection by micro-organisms conveyed to the tissue in which the abscess forms, chiefly by means of the lymphatics. The organisms concerned are:—*Streptococci*, *Staphylococci*, the *Bacillus Coli Communis*, the *Bacillus Protein* and occasionally the *Tuberculo Bacillus*—abscess of T. B. origin represent about 14% of the total number.

Although most abscesses not within the terminal rectum or its vicinity are due to infection occurring within the rectum, occasionally peri-rectal supuration is due to micro-organisms gaining access to the tissues by means of the blood stream. As soon as an abscess has been formed it extends along the line of least resistance, the pus being guided between planes of fascia and passing around those blood vessels which are of sufficient size to resist thrombosis and dissolution. The route taken by the pus varies according to the anatomical site of the abscess, but in each type the pus pursues a regular and definite course which can be accurately mapped out and studied. As soon as the pus has found an exit either in the bowel or through the skin, a fistula

has been established, *incomplete* when the discharge has taken place only in the rectum or only through the skin, and *complete* when an exit has been made in both situations.

The sequence of events which lead up to the establishment of an ano-rectal fistula in the majority of instances is as follows:—(a) the appearance of an initial lesion; (b) septic lymphangitis or plebitis as the result of infection by micro-organisms; (c) Suppuration eventrating in the formation of a localized abscess; (d) escaping of the pus either into the bowel or through the skin or in both situations, thus giving rise to (1) a *complete* or (2) an incomplete fistula.

*Classification of Ano-Rectal fistulae:—*

It is usual to divide ano-rectal fistulae into three varieties:—

- (a) the *complete fistula* in which there is an opening upon the skin surface, in the neighbourhood of the anus and also one in the mucous surface of the bowel; (b) the *blind external* fistula in which there is an opening in the skin surface and none in the bowel; and (c) *blind internal fistula* in which there is an opening in the bowel and none in the skin surface.

Some authors describe a fourth variety, *horse-shoe fistula* in which the fistulous tract extends upon both sides of the rectum, but really the opening in the opposite side from the abscess is only an off-shoot from the original abscess cavity and the resulting fistula, cannot be regarded as constituting a separate variety.

Ernest Miles of London gives a classification of ano-rectal fistula on an anatomical basis as follows:—

- (a) The subcutaneous. (b) The submucous. (c) The intermuscular. (d) The para-rectal (situated in the lymphatic sinus). (e) The sub-sphincteric. (f) The ischio-rectal.

Each of these types may present *incomplete, complete* and *bilateral varieties*.

*Features of interest presented by a complete Ano-Rectal Fistula:—*

A complete fistula presents four features of interest, namely, (1) the external opening; (2) the internal opening; (3) the main tract, and (4) the off-shoots or extensions from the main tract.

(1) *The External Opening*—If the opening is small and contracted, and especially if it is situated within an inch of the anal verge, the fistula is probably subcutaneous in type. If the opening is large, irregular in shape with undermined edges and the surrounding skin is of a reddish-purple hue, the fistula is probably tuberculous in nature. When the opening is surmounted by a tuft of granulated tissue, a deeply seated fistula, such as the ischio-rectal or the para-rectal is indicated. Should the opening be situated close to the anal verge, or within half an inch of it, the fistula is always of the sub-mucous type.

An opening situated in the posterior part of the perineum at the level of the tip of the coccyx and about one inch distant from the middle line, is suggestive of the main point of issue of a retro-rectal abscess. An opening in the middle line between the tip of the coccyx and the anal margin is probably the result of a suppurating dermoid cyst. The presence of several external openings is an indication of the existence of off-shoots from the main tract.



Although a great many ano-rectal fistulae have only one external opening multiple openings are the rule in those of the ischio-rectal type. It must not be forgotten, however, that external openings may not always be connected with the same fistulae. Two or more separate fistulae may exist in the same patient, each having a separate opening.

(2) *The Internal Opening*:—Internal openings are always located in the interior of the bowel and on perforations of the mucous coat. They are generally of small size, and circular in outline, but may be of larger size and irregular in outline as, for example, when they are due to lacerations of the mucosa or of an abrasion caused during the passage of a foreign body, such as a fish bone. When an internal opening is exceptionally large the fistula is usually *tuberculous* in origin.

The internal opening of a para-rectal fistula is generally located above the level of the levatores and from two to three inches above the anal margin. The opening of a fistula of the sub-mucous type is generally found immediately above Hilton's white line. The internal opening of an ischio-rectal fistula is *always* in the middle line posteriorly, between the internal and external sphincters.

In the majority of cases there is only one internal opening to each complete or blind internal fistula, but occasionally there are two. One opening is generally situated at a higher line than the other. If two openings are discovered at the same level, they belong to separate fistula.

(3) *The Main Tract*:—The main tract of an ano-rectal fistula is the contracted but obliterated cavity of the abscess which preceded it. It extends from the internal opening to the primary external opening, and may take a straight, curved, or tortuous course. The exact position of the main tract of a fistula in regard to the muscular apparatus controlling the outlet of the rectum is of the utmost importance from the point of surgical treatment. Failure to recognize that all fistulae are not of the same type is responsible for the disastrous consequences that sometimes result from operative treatment.

(4) *Off-shoots or Extensions from the Main Tract*:—Extensions may take place from any part of the main tract, due to suppuration in its immediate vicinity. Secondary abscesses thus found, discharge their contents into the main tract as well as through the skin, by means of secondary external openings. Some types of fistulae are more prone to ramification than others. It is important when operating upon different types of fistulae to bear in mind the possibility of off-shoots existing in lymphatic areas, other than that in which the main tract is situated. The type of fistulae that most commonly extends to the opposite side is the ischio-rectal, though the sub-mucous type may occasionally do so.

*General Principals of Treatment*:—The treatment of an ano-rectal fistula is mainly operative, though in certain circumstances palliative measures may be adopted.

*Palliative Treatment*:—This, though it may sometimes succeed in arresting progressive extension, rarely effects a permanent cure. It should, however, be always adopted in cases in which the patient's constitutional condition contra-indicates operative interference, when active inflammation is causing severe pain and copious purulent discharge indicates the formation of secondary

abscesses in the neighbourhood of the main tract. Local treatment such as the use of warm sitz baths and the application of fomentations to the perineum, is advisable. Rest, change of environment, plain wholesome food and abstinence from alcohol will improve a patient's general condition. Daily evacuation of the bowels by mild aperients should be ensured, but avoid strong purgatives.

*Operative Treatment:*—The principal underlying the surgical treatment of a fistula is to lay open the main tract from end to end, together with all the off-shoots extending from it. It is possible to efface all fistulae in this way, but whether a satisfactory result is obtained or not depends upon the damage that may be inflicted upon the muscular apparatus controlling the anal outlet. The majority of ano-rectal fistulae communicate with the interior of the bowel by means of an internal opening, but in only a small percentage is its muscular coat, penetrated by the main tract of the fistula, and in these the laying open of the main tract from end to end results in serious impairment of the muscular control of the anus. The position of the internal opening can usually be taken as an indication of the point where the main tract passes through the bowel wall. The usual position of the internal opening is between the internal and external sphincter, which is about Hilton's white line, but sometimes this opening may be found at a much higher level. A high lying internal opening does not, however, indicate that the main tract of the fistula penetrates the wall at a corresponding level.

Let us take a few examples:—

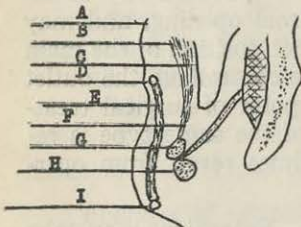


Fig. 1.

Complete sub-mucous fistula.

- A. Mucosa.
- B. Muscular coat.
- C. Pelvic peritoneum.
- D. High lying internal opening of fistula.
- E. Main tract of fistula.
- F. Levator ani.
- G. Internal sphincter.
- H. External sphincter.
- I. External opening of fistula.

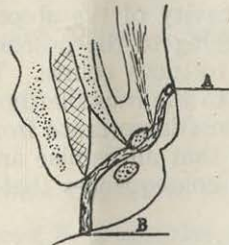


Fig. 2.

- A. Internal opening.
- B. External opening.

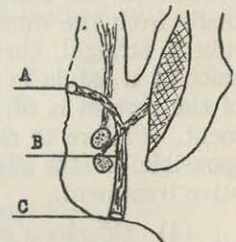


Fig 3.

Complete para-rectal fistula.

- A. Internal opening.
- B. Main tract.
- C. External opening.

Fig. 1. represents a sub-mucous fistula having a high-lying internal opening. The main tract of such a fistula is throughout its course superficial to the muscular coats of the bowel and to both internal sphincters. Laying open the main tract of such a fistula cannot possibly injure the musculature and no impairment of control can result.

In the case of an ischio-rectal fistula with a submucous extension having an internal opening at the upper extremity of the submucous portion of the tract, as in Fig. 2, laying open the tract from the external opening into the cavity

of the rectum, inflicts injury to the external sphincter, from which it is common knowledge, that impairment of control does not follow. But it will be apparent from a glance at Fig. 3. that laying open the main tract of this type of fistula (the para-rectal) into the cavity of the bowel, would result in complete division of both internal and external sphincters, both muscular coats as far as the site of the internal opening, and, what is still more important, the point of fixation of the levator ani muscle with the external muscular coat of the rectum. In operating on fistulae of this type, the tissues on the outer aspect of the main tract above should be divided as far as, but not beyond the part where the main tract passes through the wall of the rectum. The incision through the levator ani muscle is made in the direction of its fibers and not transversely. The surface wound should be extensive, also the high lying internal opening should not be interfered with. It will close completely as soon as the deep portion of the wound has been obliterated by the healing process.

An important principal involved in the surgical treatment of fistulae is that the square area of the surface wound should be made at least twice as great as the square area of the rest of the wound. In fistulae of great depth, as those of the para-rectal type, it is almost impossible to make the surface area great enough, so that it is often necessary to reopen the surface wound, in order to let the remainder of the wound fill in.

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**A**MOST important matter to be brought up at the annual meeting at Sydney is the question of the Nova Scotia Medical Society becoming a branch of the Canadian Medical Association with the name, "Canadian Medical Association—Nova Scotia Branch."

Dr. J. S. McEachern, the President of the Canadian Medical Association, and Dr. T. C. Routley, the Secretary, addressed a full meeting of the Halifax Branch on this subject last November. Several members of the executive from outside of Halifax attended. The meeting favored the proposition of Dr. McEachern and passed the following resolution:

*Whereas* Dr. McEachern, President of the Canadian Medical Association, has placed before the Halifax Branch of the Medical Society of Nova Scotia a proposition that the various Provincial Medical Associations become branches of the Canadian Medical Association, *and,*

*Whereas* the advantages of the proposition to the profession at large have been set forth:—

*Therefore:* Resolved that the Halifax Branch of the Medical Society of Nova Scotia approves of the principle with a view to submitting it to the Medical Society of Nova Scotia for their consideration and action.

*Further resolved* that the Executive of the Canadian Medical Association be requested to submit a well studied plan by which this may be brought into effect.

So far, however, no definite proposition has been received from the Canadian Medical Association. In a recent letter Dr. Routley, the Secretary, stated that the by-laws of the Canadian Medical Association have been revised and will be presented to their Council at the meeting in Atlantic City. Following that meeting a plan will be submitted to all provincial societies for consideration. Dr. Routley, the Secretary, and Dr. Meakins, the incoming President of the Canadian Medical Association, will be at Sydney and will address the general meeting on this subject. It is important we have a full meeting so that whatever action is taken will represent the feeling of the Society as a whole. *All members should plan now to attend the Sydney meeting—July 3rd and 4th.*

# A Few Observations on Organotherapy\*

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IN presenting this paper, my intention is not to go so much into a discussion of the physiology of the different organs of Internal Secretion nor a very minute description of the inter-relationship of the various organs in the endocrine chain, for although great advances have been made even since I studied physiology, which is only quite recently, yet it is apparent that theories which may now seem almost impregnable, may yet have to make way for actual facts.

Consequently, I do not propose to present much experimental evidence, but will endeavour to outline the role that the organs of internal secretion play in the maintenance of our general mental and bodily health, interspersing the discussion with a few cases, with which I have had to deal.

To start with, we are all agreed that a normal healthy individual, has perfect function of all the organs of the body, including the organs of Internal Secretion, and his nervous system. That is, the blood circulating through his body, as it passes through these internally secreting organs, picks up substances which influence the composition of the blood that maintains perfect tone of bodily organs, along with perfectly regulated nervous system.

It is experimentally proven, that venous blood from the thyroid contains thyroglobulin, picked up in its passage through the thyroid, and this fact was only discovered last year, by a man named Schulhof.

Thus, assuming that the normal healthy individual has a perfect composition of his blood, i.e. receives the proper amount of the different secretions from the thyroid, pituitary, adrenals, parathyroid, thymus, pineal, pancreas and gonads, is it not reasonable to suppose that alterations in the composition, due to the lessened or over activity of any of the organs, would not be compatible with normal health, not that there need be any great difference with a little deviation, but I think we must admit that many cases labelled as Neurasthenics, may have some such disturbance as the underlying cause. However, the term Neurasthenics, suggests that we must now establish a relationship, and a close one, at that, between the nervous system, and the various internal secretions, if we are to account for the variety of symptoms that are presented to us, such as nervous indigestion, the hot flashes, weak turns, Dyspnoeic attacks, vertigo, colitis, intermittent abdominal distension, insomnias, etc.

To establish this, I quote:—

“The complex activities of the body, both metabolic and vasomotor, are brought about by means of hormones, and by nervous influences activating these secretions. In many instances, there is experimental evidence to show that the chemical stimulus is the more important, and that it plays a larger part in the regulation of metabolism, than does the nervous.”

\*Presented at regular meeting of Harbour View Hospital Staff in April, 1934.

"As additional evidence of the intimate relationship which exists between the involuntary nervous system, and the internal secretions, there is reason to believe that the chromaffin tissue of the adrenal glands has been evolved from the central nervous system by means of cells which have travelled outwards, carrying adrenalin with them."

We know that great excitation from emotional shock, e.g. is accompanied by the presence in the blood stream of an increased amount of adrenalin, the hormone from the medullary part of the suprarenal glands. Here we see a close connection between the sympathetic nervous system, and one of our internal secretory glands, for the action of adrenalin is wholly confined to tissues with a sympathetic innervation, and moreover, the effect of adrenalin in any part of the body, is identical with that produced by electric stimulus of the sympathetic nerve supplying that part. With this in mind, and by way of diversion, I wish to cite two cases that I am now, and as far as I can see, will be, as long as I am here treating for High Blood Pressure, or, I should say, keeping under observation, for I am now quite firmly convinced that if there is to be a cure for High Blood Pressure, it will have to be instituted before the incidence of it, i.e. it will have to be relegated to the field of preventive medicine. These two cases, will serve, I think, in a way to bring out clinically evidence of the close relation of the organs of internal secretion, and the nervous system. I am assuming here now, non-authoritatively, I warn you, that the Blood Pressure in both instances, is due to a constricting influence, caused by hypersensitive nervous system, on the vessels, because both patients are not of the plethoric type. On the contrary, they are not big women, more or less anaemic in appearance, rather than of high color. Both are about the same age, about fifty-two years. Both had a rather late menopause, and neither of them are outwardly of nervous temperament. There is one interesting event in each case, that I wish to mention. I was called one night to see one of them, as she had fainted. When I arrived, she was awake, but said that her heart had suddenly started going very fast, when she fell, but she said it was going somewhat slower then. I counted it about one hundred and fifty strong rapid beats. Sometime later, within fifteen minutes, her heart suddenly resumed its normal rate. Such a picture fits in with a case of Paroxysmal Tachycardia. She gave no history of excitement of any sort, as predisposing cause, has had no attacks since, enjoys comparatively good health, certainly with no signs of cardiac deficiency. The second woman, during a menstrual period, the first since a year, suffered a whole day with marked spasm of the muscles of the left forearm, recurring about every three minutes or so, despite all local applications and sedatives.

I have mentioned these cases, merely to point out the prominence of symptoms, manifestly of nervous origin, which seem to have some endocrine disturbance as their background. The hot flashes, so characteristic of menopausal cases are due to vasomotor disturbances and in some instances, temporary insanity is present. In fact, I am sure we have all encountered the most peculiar symptoms, which, when looking for the cause, it gave us great relief to discover that the patient was undergoing her "change of life."

Thus, we see there is ample evidence of a clinical nature to show an intimate relationship between the nervous system and the organs of Internal Secretion, which will no doubt be definitely established on a scientific basis by physiologists, and laboratory workers, who are constantly at work, striving to procure the vital product or products of a certain gland in its purest, most potent form.

Assuming that we have established some relationship between the Nervous System, and the endocrine glands, and being well acquainted with the influence the Nervous System exerts on the general bodily health, let us glance briefly at the physiology of the relationship of the different glands to one another.

The experimental work now being carried on by such men as Gley, Lorand, Paton, and Cushing, is most interesting, and would make an interesting paper in itself. However, I will quote only a few of their findings, so that you may note the perplexity of the work, and from the tenor of the expressions, discern what a vast amount of physiological research has yet to be done, before the exact relationships are definitely established.

- (1) Inter-relationship between the thyroid and sexual organs appears to exist, certainly many suggestive signs point to this conclusion. The testes, and the thyroid appear to have a relation, likewise the ovary, and it is well known that the thyroid tends to enlarge at times of puberty and menopause. The ovaries exert an inhibitory action upon the thyroid, the size of the latter increasing after castration.
- (2) The inter-relationship between the thyroid and pituitary appears to be a close one, for experimental removal of the former causes hypertrophy of the latter, and Cushing states that the removal of the pituitary in young dogs, causes hypertrophy of the thyroid.
- (3) The relation between the gonads and pituitary is interesting. Destroying the pituitary, causes atrophy of the gonads, but castration causes hypertrophy of the former gland. The ovary possesses analagous properties to the testes, to a certain point, i.e. from the point of view of internal secretions.
- (4) There is a definite antagonism between the pancreatic secretion, and the suprarenals, the internal secretion of the pancreas checks the mobilizing of sugar while adrenalin hastens it.

This will suffice, I think, to show how they are gradually working out the influences of the different secretions on one another, not without much controversy, however, in some instances, as different physiologists disagree with one another, all of which illustrates how much more knowledge of the machinery of the human body, will be available to the medical profession, when it is finally established as a definite scientific fact.

I do not suppose that this presentation up to now, has convinced you that our therapeutic armament will be enhanced by the application of organotherapy, but I know that after studying Cobb's latest edition on this subject, I began to think in terms of organotherapy, and even became so enthusiastic as to suppose that I could ease the burdens of those suffering from High Blood Pressure and Asthma, not to mention an ordinary neurasthemic. As far as the cause was concerned, I was quite sure, that if the exponents of organotherapy wished to postulate some early endocrine disturbance with its consequent train of deleterious effects as a cause of High Blood Pressure, and Asthma, at least their claim could not be denied, and it would sound just as reasonable as any etiological factor that has so far been advanced.

On questioning a young married woman, about twenty-two years of age, she claimed that she experienced a slight asthmatic sensation at each menstrual period, though her bad attacks recurred at fairly wide-spread intervals. Another young girl, aged eighteen years, who suffered with milder attacks of Asthma, also complained of dysmenorrhea, and was relieved for about a moment or so, with some emplets of Thyro-ovarian extract, of which I had a few samples at the time.

Since my latest authoritative source even deprecated the use of vasodilator drugs in the treatment of High Blood Pressure, and as I had, as yet found no especially effective drug for the prolonged relief of Asthma, I thought it would not be amiss to try one of the glandular preparations. Theelin, one of the glandular secretions of the ovary, was being introduced at that time to allay the distressing symptoms of abnormal menopausal conditions. I kept a record of the fall of Blood Pressure, following each injection, and found that I had reduced a Systolic Blood Pressure of two hundred and twenty-five to one hundred and eighty-six, after a course of treatment, and it appeared to have a beneficial sedative effect on the patient. Similarly, it brought relief to a patient, who suffered a prolonged though not severe, Asthmatic attack. But, after a time, both patient's symptoms returned again, so I decided that if I had to go every third or fourth day, giving hypodermic injections the cure was not of much permanent value, and that a good stiff course of bromide treatment may have had similar results. So, as far as I was concerned, the cause seemed reasonable, and still does, only that the harmful effects of the bodily derangement, that caused the patient's present state, were too far advanced for adjustment. Meanwhile, I am not forgetting, that I have encountered as many, if not more, cases of abnormal menopausal conditions exhibiting a low, rather than a high blood pressure, and also, that some of the low blood pressure cases have even a more miserable existence than the high blood pressure cases. All of which must lead to despair, as far as organo-therapeutic assistance was concerned, and if it were not for the fact, that we may expect the signs of certain defective organic secretions to be more clearly defined, so that treatment may be instituted before the derangement has produced permanent damage. That is, when science has worked out the exact function of each gland, extracted the potent factor, and established the definite relationship, then our treatment, may not, as of necessity now, be empirical.

Since more is known of the characteristics, secretion, function, and disorders of the thyroid gland, it may be of interest to discuss it in some detail. I do not propose to discuss gross disturbances, such as goitre, and myxedema but minor disturbances, which are so prevalent, whether they are due to imperfect function of the thyroid itself, with its consequent effect on metabolism, and proper elimination, or as a result of disturbances, in the other glands, with which it appears to be closely related, and on which its proper functioning seems to depend.

In considering etiology, we must agree that it is highly improbable that one or other of the endocrine glands would suddenly, and without any stimulus, refrain from supplying its valuable contents to the blood stream. It is much more probable, that some cause, be it mental or bodily, has determined its upset. The part which mental strain plays in upsetting bodily harmony, has been proved beyond doubt by the War, and it is justifiable to assume that the strain, inseparable from modern civilian life, in some instances, may likewise produce the same effect.

Lane, in his book on Intestinal Stasis, states that one of the effects of intestinal intoxication, is atrophy of the thyroid. Similarly, any auto-intoxication, whether it be from our ordinary foci of infection, teeth, tonsils, appendix, etc., may be the determining factor, i.e. produce their harmful effects through the agency of the endocrine glands. Also, post-influenzal debility and delayed convalescence following operation, have been known to benefit by judicious use of thyroid extract.

To add to the confusion in discussing the signs and symptoms of deficient thyroid secretion, Levi and Rothschild recognized the condition known as "thyroid instability," i.e., they assert that a simple excess of thyroid secretion, i.e. slight hyperthyroidism is very liable to be succeeded by a deficiency, and that the two conditions, hyper and hypo, are frequently associated in the same individual. However, this confusion is a blessing, when we find a patient fulfilling all our requirements for a case of submyxedema, up to a certain point, and then display some marked evidence of over activity.

Since such cases are benefitted by administration of thyroid, it is well to be acquainted with this fact before enumerating some of the symptoms of thyroid deficiency. The following list of signs and symptoms, which are said to denote thyroid deficiency, is by no means exhaustive, but I will mention some of the most interesting, and I think that you will agree with me that the man who said the incidence of sub-myxedema, was one in five, did not exaggerate.

- Patients are small.
- Habitual constipation.
- Generally tired, never fit.
- Liable to morning headaches?
- Giddiness, dizziness.

Thickness is characteristic, due to deposits of fat in subcutaneous tissues, due to faulty elimination of broken down cells, i.e. nitrogen metabolism and metabolic exchanges are sluggish. Heaps of fat on nape of neck, clavicular regions, abdominal wall, and flanks.

- Children deficient have tendency to adenoids.
- Sweating absent.
- Nocturnal Eneuresis.
- Delayed union after fracture.
- Dry, rough, ichthyotic skin.
- Skin appendages lifeless.
- Eye-brow sign—outer third scanty.
- Itching of skin.
- Tendency to menorrhagia.
- Lessened bodily temperature.
- Slow pulse.
- Rheumatoid pain, and neuralgia.
- Ptosis, and weakened abdominal wall.
- Carious teeth, gingivitis.
- Laxity of joints.
- Nucous enteritis.
- Tobacco intolerance.

There are many more signs and symptoms attributable to thyroid deficiency, including in some cases, however, thyroid instability, while many of the aforementioned symptoms may owe their origin to disturbances in the endocrine chain with its consequent effect on the thyroid e.g. un-united fracture.

From a perusal of the list, we notice symptoms to which we have as yet been unable to state definitely the underlying cause. However, the tendency to rheumatoid pains, neuralgia, lumbago, etc., we have attributed to foci of



infection, and since toxæmia, from such foci, have been postulated as a cause of atrophy of thyroid, it is apparently through this agency that symptoms are manifest.

Should a case present itself, however, showing a clear cut picture of thyroid deficiency, and is diagnosed as such, the search is not ended. As Dr. Cobb says. "Most of us are well content to leave it at that, and even to spend time, which should be occupied in delving still further, and asking ourselves why such a deficiency is present, in self-adulation at our extraordinary deductive powers."

It is only in comparatively recent years, that students of preventive medicine, have attached so much importance to the removal of foci of infection to ward off the ravages of ill health, with its accompaniment of indigestion, insomnia, irritability, rheumatic troubles, etc. It is most important for thorough examination at first instance of failing health, so that any focus of infection may be removed before permanent damage is done to the whole organism. On this score, we may be able to account for the failure of organotherapeutic preparations to allay certain symptoms permanently. As this branch of medicine becomes more advanced, early disorders, diagnosed early, and corrected early by more accurate glandular preparations, may serve to cut down the incidence of the much too prevalent incurable conditions as Arterio sclerosis, High Blood Pressure, Chronic Cardio, vascular renal Disease, Asthma, etc. At any rate, I think it a good idea for those with hereditary tendencies to such conditions, to consult early and frequently, with seemingly trivial complaints.

Now, that I have at least, to my own satisfaction, accounted in some measure for the failure of the organotherapeutic preparations, I have used, to effect permanent cures, I will give a brief account of my clinical results. I might say, however, that although, in some cases, the net results were disappointing, the apparent alleviation was gratifying. The preparations I have used were:—Theelin, of which I have already spoken, Antuitrins and thyroid in a few cases and Hormotone in abundance. In one instance, I thought I had effected a cure for a most persistent monorrhagia with a combination of Antuitrin S and Hormotone. At the present time, however, I find that the same two preparations are of no avail during the recurrence following about a year of comparative comfort. The same two, or either one, however, may have had a more lasting effect on a case of shorter duration, as my case was one of functional ovarian disorder, extending over a period of from ten to fifteen years.

Regarding thyroid therapy, the points to be emphasized in its use are—

1. Choice of carefully standardized preparation.
2. Be careful preparation is fresh.
3. Use small doses, fractions of a grain, at least to begin with.

Patients taking thyroid should be under observation of a medical man, and a careful watch should be kept on pulse, and respiration rate, on temperature and blood pressure. I have not used thyroid very extensively, but in a few cases, the results were quite gratifying. It is claimed that persons who have had a prolonged illness or nervous strain, showing defective glandular secretion, owe their convalescence from a course of spa treatment, or a sea voyage to its stimulating effect, on the gland or glands inhibited by the illness or mental strain. In short, the rationale of thyroid treatment appears to

be in its administration in small doses, so that the circulation will have its beneficial effect until the underlying cause that accounts for its inhibition has been corrected.

As I said before, I have used Hormotone in abundance and am quite certain that it is a very useful preparation. It is a pluriglandular preparation containing the extracts of many glands and I think it is suitably designated as a "Scatter Shot preparation", in that since we have as yet no accurate means of detecting the particular gland at fault in a certain derangement this preparation containing all should hit the one particularly affected with its own peculiar secretion. At least this preparation corresponds with the physiological research up to now, in that the relationship of the glands seems to be established only tentatively.

My experience with it has been confined mostly to menopausal disorders, menstrual disorders, and neurasthenics. In some instances results have been spectacular, especially in an early case of menorrhagia while in those where the end results were not so spectacular, it appeared to have a wonderful stimulating effect on the patient in general. Here clinical observation of the general demeanor of the patient corresponded with her subjective symptoms, which included a sense of well-being, more vitality, and a more subdued nervous temperament.

Since studying this branch of medicine, admitting that I may have become a little over enthusiastic, I have looked upon Neurasthenics with a more tolerant attitude. Having taken particular notice of the peculiar symptoms accompanying stormy menopausal conditions, which we have no hesitation in attributing to "change of life" does it not seem reasonable to suppose that persons complaining of peculiar pains, indigestion, dyspnoeic attacks, etc. for which we can find no organic lesion, and consequently attribute to nervousness may have some endocrine disturbance as the underlying cause. Also, I do not think we are any more justified in making little of these peculiar symptoms, or attributing them to the patients imagination than we would be to tell a patient with a psychic paralysis that his arm was not paralyzed because no organic lesion can be found to account for it. Here we touch on the ground of the psychologist, which, however, is only a division of the nervous system. For we can no more divorce the psychic factor from the harmonious existence of our body, than we can omit some electrical device that forms an important cog in the perfect performance of a machine.

All must blend perfectly for a normal healthy existence, and whether bodily derangements upset the nervous system or the nervous system be responsible for the bodily derangement, it is apparent that in either case the proper functioning of the Organs of Internal Secretion are interfered with. Consequently, organo therapy is most efficacious for quick relief of bodily derangements similarly for nervous derangements, until the mental attitude or nervous strain has been corrected. In both instances it will serve to save the whole structure before either derangement unbalanced as they are have produced more or less permanent damage.

Before concluding I wish to apologize for that part of the paper which took up so much of your time in listening to observations and fanciful theories of my own concoction. Nevertheless, I would not have been so bold as to present them, had I not found after a short study of the subject that there was nothing to contradict my point of view, on the contrary it led me to see things as I have. Now, I know there isn't much of practical value that I

have presented. But when we consider that there is as yet no one theory that satisfies all the tests as to the actual mode of action of such a well known organ as the kidney we must realize how much more we have to learn of the normal functioning of this body of ours, before we can underake to cure all of its diseases.

There is no doubt that sane methods of living would eliminate the liability to many of the disorders I have mentioned. By that, I mean, if all could enjoy the benefits of fresh air, sunshine, good food, good rest and contentment, the incidents of such disorders would certainly be lessened. But such is not our heritage. Thus it would appear that we have to be constantly on the alert for new discoveries, especially the result of more recent physiological research. We may live to see the day when we will recall how incapable we were of curing Rheumatism or Asthma, for example just as older clinicians recall the days when people died of inflammation of the bowels which was really Acute Appendicitis.

#### What Toxoiding Has Meant to Toronto.

While Toronto is at present suffering from a measles epidemic (previous to 1935 there had been no deaths from that disease for two years in succession) the general health of the city is good. Last year's general death rate of 10.1 was the lowest on record in Toronto, as was the infant death rate of 54.7 (by 13 per cent.), and there was a 7 per cent reduction in the previous low rate for tuberculosis. There has not been a case of smallpox for two years.

It is in diphtheria, however, that the most remarkable record has been made—a record due in some degree to pasteurization of the milk supply but chiefly to immunization of the children who would otherwise have been afflicted. What toxoid can do in the control of this disease is shown by the following table of diphtheria cases and deaths among Toronto residents during the past few years:

Year	Cases	Deaths	Deaths per 100,000 Pop.
1929	1,022	64	10.6
1930	1,018	54	8.7
1931	532	36	5.7
1932	168	15	2.4
1933	56	5	.8
1934	22	0	0

The reduction in diphtheria rates may be even more strikingly stated by taking into account the fact that 95 per cent of the deaths that formerly occurred in Toronto were among children under 15 years of age, of whom the last census disclosed about 145,000 in the city. Sixty deaths among these 145,000 children meant a rate of over 40 per 100,000—a rate which entirely disappeared in 1934.

Approximately 56 per cent of the diphtheria deaths which used to occur were among children under six years of age, so that perhaps 36 of the 64 who died in 1929 were in that category. There were 56,000 children under six living in the city, of whom 36 died from diphtheria, a rate of over 60 per 100,000 children of that age. And in 1934 not a single death at any age!—*Toronto Star Weekly*.

## A FEW THOUGHTS ON TUBERCULOSIS CONTROL.

P. S. CAMPBELL, M.D.

THE disease Tuberculosis finds its place among the infectious, contagious or communicable diseases.

Active disease results only when persons are infected with numbers of these bacilli. When people, especially children, are protected from exposure to the bacilli the disease cannot occur. The sources of the bacilli are the persons affected, consequently where we sever the contact between tuberculous and non-tuberculous persons we are taking practical, most important and scientific steps to prevent the spread of the disease.

In the past decade approximately 5,700 people in Nova Scotia died of tuberculosis. This represents a great loss not only in lives but also in money since it has been estimated that each death from tuberculosis means a loss to the community of over \$6,000.00.

Twenty-five years ago we were losing approximately 1000 citizens annually from this disease. Last year the deaths numbered about 478. This represents a noteworthy gain and presents an encouraging picture, nevertheless we must not think that all the work in the campaign against tuberculosis has been completed. This is far from the truth. The tuberculosis problem is still a live one and the programme of the future must provide the means of completely solving this problem. How are we to do it?

A number of years ago it was thought by some that establishing a large number of sanatoria beds and bringing into these beds all persons suffering from incipient or early, non-infectious forms of the disease would bring about the disappearance of tuberculosis. The results were disappointing for the reason that advanced, infectious, cases were left, many of them under adverse home conditions, to produce more cases and those could likely be produced as fast or faster than the sanatoria could arrest the early ones. Other advocates advanced other single factors each in itself thought to be sufficient for the control of the disease such as home treatment, preventoria, education, case finding, field nurses, colonies, improved living conditions, etc.

The control of tuberculosis will never be brought about by the application of one or two of these agencies, but it may be by a sane application of all, giving to each its proper place and by apportioning our available money among them according to their importance. There is still danger of too constricted an outlook on tuberculosis and of considering one single mode of procedure as sufficient. The fight against tuberculosis is a phase of Public Health and every movement to promote the public health is an important contribution towards it.

To conquer the disease by means of sanatoria or hospitals alone would require thousands of beds. A very brief study of the problem will convince one that to cope with it in this way is out of the question. The initial cost and yearly maintenance would be in excess of what the Provincial Government, Municipal Governments, Voluntary Organizations or all of these combined would be able to provide. Fortunately such a large number of beds is not necessary, if we make use of other important agencies. It is highly probable that there are sufficient beds now so that the obvious thing to do is to make proper use of those available. Those with sputa containing bacilli and living in direct contact with young children should have preference, when possible, in admissions to institutional beds. There they are placed in a favourable environment for improvement, but of far greater importance dangerous sources of infection are removed from susceptible associates.

Beds are essential for segregational, educational, and treatment purposes. These factors are named in the order of their importance, having in mind the protection of the public and the control of the disease. After a short period of education, which all patients should be given in institutions, they are much safer to place back in their homes.

This leads up to the importance of home supervision of all open cases. It is in the home that most of the seeds of tuberculosis are sown, consequently in the home the major portion of our anti tuberculosis effort should operate. Home supervision has to do with the patient previous to his admission to an institution; it has to do with him after his discharge from the institution. It is particularly concerned with the many patients who never see the inside walls of an institution. This then should indicate the overwhelming importance of the field nurse. It has been the experience of all workers that, in many cases, with co-operative patients and tactful nurses, very favourable results have been obtained even in lowly homes.

The general scheme of home supervision is to bring into the home those fundamentals which are necessary for the treatment of the disease and for the protection of contacts. It is here that the nurse renders a really indispensable service. Having gained the confidence of the physician, the patient and the family her opportunities for doing effective anti tuberculosis work are unlimited. She will use of the means at hand and apply her knowledge accordingly. When she demonstrates and redemonstrates what can be done in the circumstances, her work becomes effective. The nurse will devote very special attention to the arrangement of the patients room or sleeping porch, use of sputum containers, proper disposal of sputum, use of mouth covering when coughing or sneezing, care of dishes, of the hands, of bedding, diet, the necessity of regular rest hours, importance of keeping others, especially children, away from the patient; in a word the practice of proper health habits.

In anti tuberculosis work education and prevention are closely related. To a great extent the control of the disease is a matter of education as to the proper modes of living and the means of preventing the spread of infection. If all the known facts of preventive medicine could be properly applied a marked reduction in tuberculosis losses would be effected. After attempting the distribution of preventive education in various ways we are forced to the conclusion that the ones best suited to bring education into the homes, where it is needed most, are those who enter the homes to do health work.

These are some of the more important factors in the control of tuberculosis as one sees the problem daily in the field. Time does not permit elaborating on others which have a particular bearing on certain phases of the crusade against the disease.

It is gratifying to be able to report that tuberculosis is declining. There was a particularly marked drop in mortality from it during the last year for which figures are available. Fewer deaths from the disease means that there are fewer advanced cases producing new infections and this implies a smaller number of disabled people in later life. Tuberculosis programmes are expanding, facts collected and information distributed. All of which makes one look into the future with greater confidence than ever before.

Permit me to close with a quotation from a well-known authority on tuberculosis, Dr. Allan K. Krouse. This gentleman once said "If in the future all tuberculosis is to be wiped out, if the conquest is to be rapid or slow, depends in the last analysis not so much on the money received and not so much on the sanatoria for the care of the tuberculous, and they are very necessary, but upon the care of the patient in the home."

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## FROZEN ASSETS OF THE MIND

**C**RITICISM of leaders of public movements and those who direct affairs of state is natural and logical in all democratic countries, including Canada. As a matter of experience, true democratic institutions cannot exist without criticism, and they, without the exercise of free speech, would soon develop or descend into an autocracy. But there is a brand of criticism which tends rather to impede rather than improve the expression of a wholesome movement. Call it fault-finding, if you will. It is only fair to assume that there is in the minds of those who occupy positions of trust, no matter how exalted or how modest, a sincere desire to improve conditions; and it is equally fair to assume that those who either by virtue of popular acclaim or by appointment have assumed public duties are so acclaimed or appointed by reason of fitness for the management of affairs with which they have been entrusted. No official body and no official deliberately undertakes a policy of destruction or defeat. Accepting office is accepting something that carries with it grave responsibility and little reward, receives much complaint and meagre compensation. Those at the head of governments or departments, leaders of social and health movements and other activities that make for a better world to live in, especially in those difficult times, when the harvest is greater than the gleaners, need sympathy and encouragement, and if there must be criticism let it be constructive.

Furthermore, no man is equipped for the critical art who is not equipped with the facts, a fund of sincerity and a passion for truth. These are real assets if a man would criticise. Fault-finding is more or less a "frozen asset."

J. K. McL.

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## THE TUBERCULOSIS CAMPAIGN.

**I**N the campaign that is being incessantly waged against tuberculosis, with its sporadic outbursts of activity accompanying the introduction of each new therapeutic weapon medical or surgical, the ultimate goal, viz. the eradication of tuberculosis as a health problem, seems almost to be lost sight of in the glamor of these immediate results, yet looking back over the

last two ten-year periods, there has been a very decided improvement in conditions over this province, still each year brings its quota of recruits to the ranks of the victims of this disease.

The two main lines of attack in this campaign are:—

- (1) Preventive measures, sponsored by the Public Health services, Provincial, Municipal and Local.
- (2) Curative measures:—dealing directly with the individual casualties which fall in the line of work of the doctors of the province, linked up with the Kentville Sanatorium and the various Annexes, thus giving an interlocking service between these two main lines of attack.

In all matters of health preservation the question of money stands out in the forefront as preventive measures call for the maintenance of a permanent, aggressive, field force, in order to learn exactly:—

- (a) How many cases exist,
- (b) Where they are located,
- (c) The facilities available for carrying out the required curative treatment in each case.

It was in this last section (c), that the number of available beds was found to be much short of the requirements. So that after much investigation, consideration and efforts for co-operation the Annex plan was evolved as it offered the best solution, under existing conditions, of this very decided handicap if we wished to wage a continued and sustained warfare against this disease.

It was realized that hospitalization of all these cases was not only impossible but in many cases, not necessary, or desirable, but that segregation of the spreaders would be a long step towards minimizing the disease. So with this in view a number of the districts decided to build an Annex in conjunction with their existing hospital service, and these units are now rendering good service in several communities.

These institutions were not intended to be competitors or substitutes for the Kentville Sanatorium, but besides carrying on in their own particular field they have afforded facilities for treatment to patients released from the Sanatorium, and also offer opportunities for a regular check up, on these cases, under the supervision of the Divisional Health Officer, and his advice, in old and new cases, is always available.

An inexpensive, fireproof type of building might be designed for this kind of service, that would still afford the patients plenty of sunlight, rest and fresh air, and with a trained staff of nurses offer a most effective weapon in this campaign.

J. J. Roy.

EIGHTY-SECOND  
**ANNUAL MEETING**  
 OF THE  
**Medical Society of Nova Scotia**

SYDNEY, July 3rd, and 4th, 1935.

Provisional Programme

TUESDAY, JULY 2nd

7.30 p.m. Executive Meeting, Isle Royale Hotel.

WEDNESDAY, JULY 3rd

9.30 a.m. Registration.  
 10.00 a.m. Civic welcome by His Worship, Mayor H. F. Muggah  
 Report of Executive.  
 Routine Business.  
 12.30 a.m. Adjournment.  
 2.00 p.m. To be arranged.  
 2.30 p.m. Paper by Dr. E. C. Menzies, New Brunswick Medical Society.  
 3.30 p.m. Golf.  
 8.00 p.m. "Arteriolar Infarction with particular reference to Cerebral  
 Haemorrhage and Coronary Lesions" by Dr. J. C. Meakins,  
 Montreal, Canada. Discussion to be opened by Dr. J. R.  
 Corston, Halifax.

THURSDAY, JULY 4th

9.30 a.m. To be arranged.  
 10.00 a.m. "Placenta Praevia" by Dr. G. F. Dewar, Prince Edward Island  
 Medical Society.  
 10.30 a.m. "Vagaries of Development of the Umbilical Region," by Dr.  
 Alfred T. Bazin, Montreal, Canada.  
 Discussion to be opened by Dr. D. W. Archibald, Sydney Mines,  
 Nova Scotia.  
 11.30 a.m. Presidential Address.  
 Unfinished Business.  
 2.30 p.m. Paper by Dr. Frank G. Mack, Halifax, N. S.  
 "Complications of Late Pregnancy" by Dr. John Fraser, Pro-  
 fessor of Obstetrics and Gynaecology, McGill University,  
 Montreal, Canada.  
 Discussion to be opened by Dr. L. M. Morton, Yarmouth, N. S.  
 4.00 p.m. To be arranged.  
 4.30 p.m. Unfinished business.  
 7.30 p.m. Banquet.



## CASE REPORTS

### RUPTURE OF UTERUS.

**R**UPTURE of the uterus, especially in the lower uterine segment, is rarely reported. Predisposing factors are previous Caesarean section, amputation of the cervix, frequent pregnancies, placenta previa, operation for uterine fixation. Beck states that wounds in the lower uterine segment heal better because this segment is comparatively a passive one.

#### *Report of a case.*

The patient was a short, thin woman, 36 years old; a para ten with the oldest child 14 years of age. Every other pregnancy was a stillborn child. There were no instrumental deliveries. She had an operation for gangrenous appendix in 1928. In 1933 she had a curettage for incomplete abortion. In January, 1934, she had indefinite labor pains for four days with little dilatation of the cervix. This was complicated by a severe and stubborn antepartum haemorrhage. Caesarean section was decided on, and the classical operation performed. The uterus was carefully sutured in three layers. A live child was obtained. She had a normal convalescence with no evidence of infection.

On March 12, 1935, the patient was admitted to the Glace Bay General Hospital for observation. Examination showed cephalic presentation with occiput anterior and head at brim of pelvis. This was confirmed by X-ray examination. Vaginal examination showed a thin cervix with no dilatation; presenting part could be palpated. She had no pains and felt in good health. It was decided to wait until the patient went into labor, and then the further course would be determined. On Sunday, March 17th, at 9 a.m. she began to complain of some irregular pains in the lower abdomen. I saw her at 10.30 a.m. The patient then looked ill and the abdomen was tender and rigid. Vaginal examination showed no presenting part and the cervix could not be located; membranes were intact. Dr. M. G. Tompkins was called in for consultation and agreed that immediate operation was indicated. On opening the peritoneal cavity the placenta was found presenting through the ruptured lower uterine segment. Both broad ligaments showed evidence of old haemorrhage. There was no free blood in the peritoneal cavity. The opening in the uterus was enlarged and a stillborn foetus delivered. Haemorrhage from the site of the placenta was profuse. The sodden lower uterine segment would not hold the sutures, nor would pressure on the segment control the bleeding. Rapid hysterectomy was performed. The patient made a slow but nice post-operative recovery. She was discharged after four weeks.

An attempt at blood transfusion on the third post-operative day was almost tragic. Counter matched blood was used. After 30 c.c. of citrated blood entered the vein, the patient complained of severe headache, agonizing pain in the lumbar region and showed signs of shock. The transfusion was stopped.

*Comment.* (1) While the dictum "Once a Caesarean section, always a Caesarean" is not exactly sound, such patients should always be treated as possible Caesarean cases. (2) There is always the possibility of alarming symptoms in a blood transfusion.

ARTHUR GREEN, M.D.,  
Glace Bay, N. S.

### Sarcoma of Thyroid.

The patient is a female, housewife, age 52 years, well nourished, who complains that her neck, which has always been large, has increased noticeably in size during the last four weeks and although painless causes difficulty in sleeping due to weight.

*Family History:*—Negative for malignancy.

*Personal History:*—Married, has five healthy children and has always been healthy. About six months ago while patient was hanging clothes she slipped and in grabbing line had an almost spontaneous fracture of the humerus. This fracture was set under fluoroscope and has not given any trouble since. Patient has had pronounced enlargement of the thyroid for ten years.

*Present Illness:*—About four weeks ago mass, about the size of a small orange, appeared on surface of right lobe of thyroid, this was very soft and seemed haemorrhagic. There is some difficulty and pain on moving head and voice is brassy.

Temperature, pulse and respirations have never varied from normal during the three weeks in hospital.

Basal Metabolism, Blood Picture and urine all show negative findings. Blood pressure 130-88.

Section of Thyroid taken at operation were sent to Pathological Laboratory with following report: "The histological appearance of this thyroid reveal a vascular spindle cell sarcoma. This tumour is extremely rare and claimed by Ewing never to have been demonstrated in the thyroid."

This report made me think of the old fracture in the humerus and on X-ray a small circular growth not extending beyond the bone margin was clearly seen. Roentgen ograms of other parts of the bony structures show no other metastis.

As no facilities for X-ray treatment are available in Sydney and as patient refused to go to larger centre, she did not have this treatment which might have helped her.

If the original focus was Sarcoma of the humerus, the rapidity of the growth of the thyroid was in direct contrast to the benign growth in the bone.

It is a question of whether the treatment of the bone growth at the time of fracture would have prevented metastis in thryoid.

About 3 mos. after leaving hospital the growth had invaded practically the whole neck and nodule were pushing through skin in various places.

Patient died while quietly in her sleep 6 mos. after fracture of humerus.

R. Ross,  
Sydney.

### Case of Idiopathic Purpura?

*History:*—Patient eighteen months old. Born and resident in Newfoundland.

*Family History:*—Maternal grandmother died of Pulmonary Tuberculosis. Mother shows evidence of chronic non-active Tuberculosis. No evidence of syphilis in family. Blood of both mother and father negative to Khan test. Two other children in family, in perfect health but with history of a rash appearing suddenly on the taking of milk.

*Past Illness:*—Child has been in perfect health since birth up to Xmas, 1934.

*Present Illness:*—(obtained from parents). Last Xmas or there about, child became suddenly ill with localized swelling or rash varying in size from a 25 cent piece to about the size of one's hand appearing in various parts of the body and disappearing as rapidly, having the characteristic of a bruise. These swellings or rash did not last more than a day but the colour changes from blue, to brownish, to natural, took a few days. During that period which amounted to about three weeks the temperature was elevated twice to 101-102F. The child also had snuffles which was being treated by the family physician. Three weeks before I saw the child and about the fourth week of the illness there developed suddenly a swelling occupying the entire forehead, nose and eyes, the eyes being completely shut owing to the swelling and the nose being about three times the normal size. A fissure appeared at the left commissure of the lips and a great deal of dirty muco-purulent secretion from the nose.

The above paragraph describes the condition in which I saw the child on first consultation.

The clinical examination revealed, in addition to the above, temperature 99, pulse 90. The child was anaemic, unable to eat owing to its mouth condition, but was well nourished, the skin clear everywhere, the swelling over the forehead was movable but of a doughy character. There was no evidence of fluid or pus. Examination of the nose and throat was negative, but for the muco pus secretion from the nose. The heart was normal, kidneys normal. Breath sounds over both lungs clear. No enlarged glands excepting the left sub-maxillary. Blood examination:—Reds 1,140,000, White 5,600. No abnormality in the blood cells excepting the pale centres of the reds.

The following were considered as possible causes of this strange condition:—Syphilis, Erysipelas, Angioneurotic Oedema, Purpura and Purpuric Urticaria.

Syphilis was eliminated after the parent's blood was found negative for Khan (the child's blood was not tested).

Erysipelas was also ruled out owing to the mildness of the general symptoms namely temperature and pulse.

Angioneurotic Oedema was not considered likely owing to the duration of the swelling over the forehead, so also was Purpuric Urticaria.

The child was put on calcium gluconate and adrenalin by mouth, and an ointment of Ichthyol and Belladonna locally. Within a week the swelling over the nose, eyes and forehead disappeared but quite suddenly one day the child became swollen all over as one would see in a case of Acute Nephritis, the legs and arms being particularly so. The temperature was 100, pulse 90,

urine negative. In twenty-four hours the swelling disappeared completely excepting around the ankles which were slightly swollen. After a few days quite suddenly again the entire body was covered with an urticaria like rash, not large but extensive. In twenty-four hours this disappeared leaving a sort of brownish like colour at the site of these rashes, suggestive of ecchymosis undergoing resolution. During the entire period the child was under observation (about three weeks) the child was kept on a strict milk diet.

About the end of the third week the child contracted a cold which developed into pneumonia which ended in death within four days. A post mortem was not held.

A. CALDER,  
Sydney.

### Congenital Portal Disease.

Miss J. R. School girl, age 11 years, admitted to Harbor View Hospital, December 21st, 1934.

*Complaints:*—Severe pains and distress with marked swelling of abdomen.

*History of Present Illness:*—Since babyhood, patient has had periodic attacks of jaundice associated with epigastric pain.

These attacks were of about three days duration, not always severe enough to prevent her attending school. Occasionally they would be accompanied with rectal pain and stools would be blood streaked.

About three weeks ago patient had tooth-ache with very marked swelling in the lower jaw. After swelling subsided, tooth was extracted but an abscess formed which had to be opened externally.

At this time patient noted that her abdomen was swelling. A large dose of castor oil relieved condition somewhat, but fluid continued to accumulate rapidly and breathing became difficult. Patient removed to hospital.

*Family History:*—Parents both healthy. Younger brother and sister both normal.

Maternal grandmother always had attacks of jaundice. Died of cancer of liver at age of 60.

One maternal great-aunt died of liver trouble in Old Country.

*Physical Examination:*—Young, well nourished girl of brunette type. Temp. 103. Pulse 130. Respirations 34. Markedly distressed and coughing continuously. Skin quite jaundiced. A pimply rash on forehead.

A slight discharge of pus from wound at base of right jaw.

Has marked dullness with moist rales at the base of both lungs.

Abdomen distended and shiny; impossible to palpate abdominal organs.

Heart sounds regular, but weak and rapid; no murmurs. B. P. 110-70.

Urine, acid, 1022; smoky XX albumin with a few red blood cells and casts.

No enlarged glands.

Reflexes normal.

*Treatment:*—Patient given calomel in fractional doses followed by saline purgatives.

December 24th abdomen aspirated and 262 ounces of pale straw coloured fluid removed.

The following laboratory report was received:

"Cultures give a mixed growth of *B. Coli communis* and *staphylococcus pyogenes albus*."

Patient got great relief after tapping. Temperature dropped to normal and cough disappeared.

Examination of the abdomen now elicits a much diminished area of liver dullness; the lower edge of the organ can be palpated  $1\frac{1}{2}$  inches above the lower border of the right costal margin. No splenic enlargement.

For three days temperature remained normal, then symptoms recurred and tapping was again resorted to.

January 31st, 1934: This time the fluid was clearer.

The following is the laboratory report:

"Direct smears. A few leucocytes, but no pus cells were seen. In addition numerous staphylococci and *B. Subtilis* were present.

Cultures gave a heavy growth of *B. Subtilis* with a moderate admixture of *staphylococcus albus* and *aureus*."

Examination negative for Tubercle Bacelli.

Patient went on as before and in spite of leakage from the aspiration wound continued to again increase in size.

The question of operation was considered and Dr. J. G. MacDougall was called in January 17th. The same day aspiration was performed for the third time and 250 ounces of fluid removed.

Surgical interference was not advised and patient returned to her home January 19th.

One week later patient had a chill and sudden rise of temperature to 104F. The following day it dropped to normal and has remained normal since.

*April 12th, 1935*:—Patient is now feeling quite well. Examination shows the same diminished liver dullness, but there is no ascites, nor has she had any attacks of jaundice.

D. W. ARCHIBALD,  
Sydney Mines.

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## ACUTE HAEMOLYTIC ANAEMIA OF LEDERER

M. G. TOMPKINS, M.D., Dominion.

**T**HIS is one of the rare anaemias, haemolytic in type. The temperature is raised and the clinical picture is that of an acute systemic infection but blood cultures and examination of the tissues all negative. There may be and usually is a leucocytosis, but there may also be a leucopenia. The disease runs a very indefinite course. It may end in death or in recovery in the course of several months. Blood transfusions are supposed to rapidly hasten recovery in some cases.

The following case history may be of value to show the fatal termination of some of these cases, regardless of treatment used.

Mrs. MacM., hospital No. 1426, age 33, para 5.

Called to see this patient April 15th, 1934; gave a history of eight and a half months pregnancy and examination showed uterus enlarged corresponding

to that period. She complained of headache, chills and at that time temperature 102, pulse rate 120; diagnosed as influenza and she recovered in the course of a few days. At the same time she gave history of vaginal discharge which had persisted for several months. Seen again May 10th, some pain in kidney region, left side, with frequency of micturition. Was admitted to the hospital May 12th, temperature 102. This pain in kidney region was quite severe. Urine examination showed albumen one plus with few pus cells. Owing to the fact that this woman had been operated upon five years previously for a large peri-nephritic abscess it was thought that another abscess had formed in the same region. Leucocyte count taken and was found to be white cells 8,280; polymorphs 84%, large lymphs 4%, small lymphs 11%. This helped to rule out the possibility of perinephritic abscess. Her temperature remained between 101 and 102 for the next few days. On May 17th she was delivered of twin babies with very little difficulty, but she had severe post-partum hemorrhage. This temperature continued about the same level and occasionally would shoot up to 103 and on a few occasions 104. On May 25th blood transfusion of 400 c.c. of blood was given. June 19th the blood picture showed white cells 1,400, red blood cells, 1,290,000; hemoglobin 30% and color index 1.2, polymorphs. 80%; large lymphs 8%, small lymphs 12%. June 20th 400 c.c. blood given; June 25th 350 c.c. of blood given; July 1st 400 c.c. blood given; July 10th 300 c.c. blood given. In spite of the large amount of blood given on July 17th the blood picture shows white cells 1,600 and red blood cells of 910,000; hemoglobin 25%, color index 1.3. July 18th 400 c.c. of blood given. The temperature at this time reached normal with an evening rise of 100, pulse very rapid and patient distressed. Limbs oedematous, heart shows quite a distinct mitral murmur, percussion shows heart enlarged markedly to the left and considerably to the right. The abdomen was distended with some free fluid. At this time the patient became very difficult to manage; along with other symptoms she developed a very severe gastro-enteritis, bowel movements numbering from ten to twelve daily. On July 23rd blood count, white cells 4,200, red cells 930,000; hemoglobin 25% and color index 1.3, and it was decided to transfer her to her home. She left the hospital on July 24th with an evening temperature of 100 and the above symptoms.

At home patient was treated with iron and arsenic hypodermically, ventriculin in full doses. Blood count taken on July 28th showed white cells 8,800, red cells 1,040,000; hemoglobin 25% and color index 1.2, polymorphs 68%, large lymphs 7%, small lymphs 24%, eosinophiles 1%. August 3rd blood count 6,280 whites, red cells 850,000, hemoglobin 25%, color index 1.5. No improvement whatever in the diarrhoea or the other symptoms. She was re-admitted to the hospital on August 6th with a temperature of 102 and a rapid pulse. It was thought at the time if blood given in large quantities that her aenemia might be combated.

August 7th, 400 c.c. of blood given.

“ 9th, 550 “ “ “  
 “ 11th, 450 “ “ “  
 “ 13th, 300 “ “ “

Her blood count on August 13th showed white cells of 1,000, red cells, 200,000 and hemoglobin up to 45%. On August 17th white cells 1,000, red cells 1,470,000. August 19th 500 c.c. blood given. Blood count on August 26th, white cells 3,320 red cells 1,440,000, hemoglobin 38%, color index 1.3.

During all this time ventriculin and iron and arsenic were kept up along with the transfusions. Decided that the case was hopeless as the blood that was transfused was used up almost as rapidly as it entered the blood channels. She gradually weakened and September 4th blood count showed white cells of 4,400, red cells, 830,000; hemoglobin, 15%; polymorphs, 65%; large lymphs, 5%; small lymphs, 30%. The patient expired on September 10th, 1934. The diarrhoea persisted throughout the whole illness without any abatement. Repeated blood cultures for various organisms done—negative. Decided to do a post-mortem. Abdomen opened and great amount of greenish fluid found in the abdominal cavity; stomach greatly dilated. Pyloric ring patent. Small bowel examined for ulceration but none found; bowel empty and contracted, the wall appeared to be greatly thinned out and almost transparent. Large bowel examined and no ulceration or growth found. Liver very much enlarged, extending down to level of umbilicus. Left kidney showed some adhesions surrounding it from previous operation. Spleen enlarged with an accessory spleen present. Right kidney normal. Pericardium contained about a quart of fluid, pericardial sac and heart extending well over to the left causing a compression of the lung. Heart muscles very flabby and heart greatly dilated. Lungs perfectly healthy.

The pathological report—The pancreas has a typical café appearance from deposit of haemosiderin in the cells and also a diffuse interstitial fibrosis or cirrhosis.

The liver shows a similar color; histologically haemosiderin is seen at the periphery of the lobules and fatty degeneration in the central area.

The spleen is enlarged to one and a half its normal size. The venous sinuses are congested and dilated with some thickening of the walls. There is also proliferation of endothelial cells with phagocytoses of the affected red cells. The accessory spleen shows a similar change.

Kidney shows some fatty degeneration and a slight deposit of haemosiderin in the secretory tubules.

Bone-marrow is somewhat reddish and the histological sections here reveal a definite erythro blastic reaction with megakaryoblasts predominating.

Remarks—The history and appearance of the organs point to a definite haemolytic anaemia which may have possibly been due to a haemolytic streptococcus.

There are some features of a profound anaemia of the pernicious type also present.

## CANCER SECTION

### CANCER OF THE CERVIX: A PREVENTABLE DISEASE

JOSEPH COLT BLOODGOOD, Baltimore, Maryland.

**C**ANCER of the Cervix of Mothers is a Preventable Disease. In spite of this knowledge the number of cases actually prevented is still relatively small. After the local cancer has started in the cervix the actual cures by treatment, with radium and X-ray, is computed in a few of the best clinics of Europe and America as about 33%. Two-thirds, therefore, of the cancers of the cervix in mothers do not reach treatment in time, or they reach some member of the medical profession who is either improperly trained or inadequately equipped.

The medical profession must be properly educated in order to cure these mothers threatened by this preventable disease. The number of mothers who have lesions of the cervix which are in the preventable stage must come under the treatment of a member of the medical profession who is properly trained and equipped.

I am quoting here the "almost unanimous opinion of 900 members of the American College of Surgeons", which was published on a separate card and given to the members of the American College of Surgeons and to many others of the Medical profession throughout the United States and Canada and abroad.

It is a matter of difficulty to conclude that ignorance of this opinion can explain the neglect of the Profession of Medicine to do their part in arranging for those protections from cancer of the cervix which are essential to give women the benefits of preventive medicine. Here is the statement which has been published and addressed to mothers:

"The almost unanimous opinion of 900 obstetricians, Fellows of the American College of Surgeons and many other Physicians and Fellows of the College, is that Mothers' best protection against cancer of the cervix of the womb depends upon the repair of all injuries and irritations following the birth of a child, and semi-annual Selvix examinations thereafter.

Every woman should know that anything observed unusual in the monthly period; the appearance of a discharge, with or without blood, between periods; and the reappearance of the menses or any discharge after the menopause (change of life), are warning symptoms which demand an immediate and a proper examination by a competent physician.

Consult your family physician about this statement. Do it now, regardless of any previous examination or conversation."

All women, therefore, are urged to report for an examination twice a year to their own family physician or to one he selects or to a member of an obstetrical clinic. No woman who has borne a child should fail in submitting to such protective semi-annual examinations.



The point is that to-day the majority of women, rich or poor, ignorant or informed, do not receive this routine semi-annual examination from the birth of the last child until the menopause.

There is hardly an exception to the opinion of public health officials that every child at six months of age should receive the toxoid for diphtheria. A large number of public health officials send a postcard to the parents whose child has arrived at its six months birthday. This postcard states: "Your child has become six months of age. It should receive its first protection by the injection of toxoid against diphtheria. If you cannot afford to take your child for this protection to your family physician, bring the child to the Health Department, and it will receive its inoculation free of charge."

Dr. Huntington Williams, Commissioner of Health for the City of Baltimore, sent me his recent report on this subject which was read at the Public Health meeting this past summer. Since these postcards have been sent out the number of cases protected by toxoid has increased tremendously both as given by private physicians and public health officials.

There are still deaths from diphtheria among children who have not been protected by the introduction of toxoid at the proper time, but there are still many more deaths from cancer of the cervix in mothers who have not received the warning to come to the clinic, or to the family physician, for a pelvic examination semi-annually after the birth of each child. These mothers are not properly informed by their physicians and there is as yet no uniform method among the members of the Health Departments to inform them. The Health Departments and the obstetricians should come together and formulate definite rules to be given to mothers on the life saving importance of semi-annual pelvic examinations.

I sincerely hope that those of you who read this statement will help obstetricians and Health Departments to instruct mothers that this semi-annual pelvic examination is the only sure protection against cancer of the cervix. I am inclined to think that the recent statement, that 33 to 40% of women are cured of cancer of the cervix by proper treatment with radium and X-ray, is a mis-statement. It does not include all women who suffer with cancer of the cervix, but only those who are treated, as there are many who die without treatment. In addition to this, there are many who are actually treated, and treated well, who are not included in these statistics, because their doctors know that the local disease has gone beyond the possibility of a cure, although amenable to palliative treatment.

I am convinced that no member of the medical profession or no public health official has as yet given correctly the same protective information to mothers for themselves that is now being given to mothers for the protection of their children against diphtheria by the toxoid injection at six months of age. You will observe that in addition to advising the toxoid injections for the protection of children against diphtheria, this advice is very definite as to age and there is no compromise. For the protection of women against cancer mothers are urged to have at least two pelvic examinations each year until the menopause has come and passed. There is no question that neither the profession nor the nurses, nor the mothers, have yet grasped the great importance of this routine. There must be no waiting for symptoms of any kind. Fortunate, however, is the mother who has definite symptoms, like pain or some kind of a discharge that brings her under observation before cancer has developed, or in the early stage of cancer, while there is still an

opportunity for a definite cure. Let us grant that many women who have had children are cured of cancer by the combination of radium and X-rays, we must bear in mind that most of them are early cases. When every woman seeks an examination the moment she is warned, her chances of a permanent cure are good. But when this warning is that of Cancer, it does not mean that she will be cured in every case. It is the best she can do, however, when she waits for a definite warning; on the other hand, when the mother acts on the instructions to seek a semi-annual examination by a properly trained doctor and examination reveals some lesion of which she had not even a suspicion, there will be very few chances of her not being cured. I am confident that all public health officials, all doctors, all nurses, and all teachers, should learn that mothers need special instructions, and one of these is that every mother should have a semi-annual examination, repeated each time after the birth of a child and continue until the menopause is established. There can be no exception to this rule. As long as there are children there must be protective semi-annual examinations.

I am beginning to notice improvement in my own experience. When I ask a mother to-day, who comes to my clinic because of warning from somewhere else in the pelvic organs, when she had her last pelvic examination, she generally answers "Within six months or a year." It is not more than four years ago since less than 10% of mothers answered that they had had a pelvic examination within six months or a year. This is a distinct improvement, but it is an improvement among a special group or class. To-day the majority of mothers are still ignorant that there should be no exception to the rule that every mother, as long as she has a uterus remaining, should receive semi-annual pelvic examinations.

Therefore, the mother, as well as the child of six months of age, should receive protection. There can be no compromise. Neither the public health officials or properly trained physicians should see not only that this is done, but done at the proper time.

The following is an exact quotation from a reprint entitled "Preventive Medicine, Periodic Examinations, and Protection of Mothers against Cancer." All of this reprint, except the statement in regard to the cervix of the womb, was presented in this BULLETIN last month. You will observe that the 1935 statement is much more emphatic in some particulars than the statement made in April, 1932.

"At the present writing, unfortunately, this subject has received the least attention of physicians, nurses and the public press. A recent careful survey of the opinions of experienced students in the medical profession shows a definite agreement that the greatest protection against cancer of the cervix in mothers rests upon a semi-annual pelvic examination by a competent member of the medical profession. The survey revealed that less than ten per cent. of mothers receive this protection. With few exceptions, mothers who present themselves to their doctors with cancer of the cervix are in the late stages. In spite of the large amount of radium and skilled radiotherapists, the probability of a cure in the most experienced hands is less than thirty per cent. We know that with the same treatment (radium), if applied in the earliest stages of the disease, the chances of a cure should be sixty per cent. or more. A semi-annual pelvic examination detects the spot in the cervix before cancer develops, or it detects the spot in the earliest stage of cancer, when the chances of a cure are best. Cancer never begins as cancer. Cancer begins in a single spot. The normal cells of that spot are changed to abnormal cells, which are not cancer cells. We know that chronic irritation, an injury, or pre-existing lumps (like warts or moles), and unhealed

wounds anywhere, are the sites in which cancer develops. When these spots are recognized and removed, or treated before cancer has developed, cancer is prevented.

Another important fact which every one should know: The symptoms, signs or warnings of little things that are not cancer but which may become cancer and the earliest stage of cancer are identical. On this fundamental fact rests the advice to have an immediate examination after the first warning. The chief value of an annual examination for every woman and a semi-annual examination for mothers is based upon the knowledge that at these examinations we may discover either the local conditions that precede cancer or the earliest stages of cancer."

The circular of Major General Ireland, Surgeon General of the United States Army, issued March, 1931, Circular No. 25, recommending annual pelvic examination of the wives of officers and enlisted men has already brought definite information justifying this procedure. He writes April, 1935, "There has now been an experience of more than four years and it is increasingly protecting the wives and mothers. The most recent report is in my hands now."

The essential thing for mothers and public health officials and doctors and nurses to remember is: Mothers must receive semi-annual pelvic examinations after the birth of each child to the menopause if they are to receive full protection. There must be no delay waiting for signs or symptoms. If a mother develops any signs or symptoms between semi-annual examinations she should be re-examined at once. There should be no waiting until the next semi-annual examination.

Prepared for the Refresher Course Committee, Faculty of Medicine, Dalhousie University and published by the courtesy of the Medical Society of Nova Scotia.

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### The True Economy of Dextri-Maltose.

It is interesting to note that a fair average of the length of time an infant receives Dextri-Maltose is five months: That these five months are the most critical of the baby's life: That the difference in cost to the mother between Dextri-Maltose and the very cheapest carbohydrate, at most is only \$6 for this entire period—a few cents a day: That, in the end, it costs the mother less to employ regular medical attendance for her baby than to attempt to do her own feeding, which in numerous cases leads to a seriously sick baby eventually requiring the most costly medical attendance.

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Dr.—going out to Onslow Mountain last fall found the last drop of oil had leaked from his car and he went to a nearby house and inquired for oil. "Any kind will do," he said, "castor oil if you have it." "I ain't got any castor oil, Mister," said the old lady regretfully, "But I can mix you up a dose of salts."

# Department of the Public Health

## PROVINCE OF NOVA SCOTIA

Office—Metropole Building, Hollis Street, Halifax, N. S.

**MINISTER OF HEALTH** - - - - HON. F. R. DAVIS, M.D., F.A.C.S., Halifax

**Chief Health Officer** - - - - DR. P. S. CAMPBELL, Halifax.  
**Divisional Medical Health Officer** - - DR. C. M. BAYNE, Sydney.  
**Divisional Medical Health Officer** - - DR. J. J. MACRITCHIE, Halifax.  
**Director of Public Health Laboratory** - - DR. D. J. MACKENZIE, Halifax.  
**Pathologist** - - - - DR. R. P. SMITH, Halifax.  
**Psychiatrist** - - - - DR. ELIZA P. BRISON, Halifax.  
**Superintendent Nursing Service** - - - MISS M. E. MACKENZIE, Reg. N., Halifax.

### OFFICERS OF THE PROVINCIAL HEALTH OFFICERS' ASSOCIATION

**President** - - - - DR. F. O'NEIL - - - - Sydney.  
**1st Vice-President** - - DR. H. E. KELLEY - - - - Middleton  
**2nd Vice-President** - - DR. W. R. DUNBAR - - - - Truro.  
**Secretary** - - - - DR. P. S. CAMPBELL - - - - Halifax

### COUNCIL

DR. C. G. MACKINNON - - - - Mahone Bay.  
 DR. B. C. ARCHIBALD - - - - Glace Bay.  
 DR. G. V. BURTON - - - - Yarmouth.

### MEDICAL HEALTH OFFICERS FOR CITIES, TOWNS AND COUNTIES

#### ANNAPOLIS COUNTY

Hall, E. B., Bridgetown.  
 Braine, L. B. W., Annapolis Royal.  
 Kelley, H. E., Middleton (County & Town).

Murray, R. L., North Sydney.  
 Townsend, H. J., Louisburg.  
 Gouthro, A. C., Little Bras d'Or Bridge,  
 East Side.

#### ANTIGONISH COUNTY

Cameron, J. J., Antigonish (County).  
 MacKinnon, W. F., Antigonish.

#### COLCHESTER COUNTY

Eaton, F. F., Truro.  
 Havey, H. B., Stewiacke.  
 Johnston, T. R., Great Village (County)

#### CAPE BRETON COUNTY

Tompkins, M. G., Dominion.  
 Fraser, R. H., New Waterford.  
 MacDonald, N., Sydney Mines.  
 McNeil, J. R., New Aberdeen.  
 McLeod, J. K., Sydney.  
 O'Neil, F., Sydney (County), West Side.

#### CUMBERLAND COUNTY

Bliss, G. C. W., Amherst.  
 Drury, D., Maccan (County).  
 Gilroy, J. R., Oxford.  
 Hill, F. L., Parrsboro.  
 Eaton, R. B., River Hebert (Joggins).  
 Withrow, R. R., Springhill.

**DIGBY COUNTY**

McCleave, J. R., Digby.  
Rice, F. E., Sandy Cove (Mcpy.).  
Belliveau, P. E., Meteghan.

**GUYSBORO COUNTY**

Chisholm, A. N., Port Hawkesbury (Mulgrave).  
Sodero, G. W., Guysboro (County).  
Moore, E. F., Canso.  
Monaghan, T. E., Sherbrooke (St. Mary's Mcpy).

**HALIFAX COUNTY**

Almon, W. B., Halifax.  
Forrest, W. D., Halifax (County).  
Glenster, E. I., Dartmouth.

**HANTS COUNTY**

Bissett, E. E., Windsor.  
MacLellan, R. A., Rawdon Gold Mines (East Hants Mcpy).  
Reid, A. R., Windsor (West Hants Mcpy).  
Shankel, F. R., Windsor (Hantsport).

**INVERNESS COUNTY**

MacLeod, J. R., Port Hawkesbury  
Chisholm, D. M., Port Hood.  
Chisholm, M., Margaree Harbour (County).  
Ratchford, H. A., Inverness.

**KINGS COUNTY**

Bishop, B. S., Kentville.  
Bethune, R. O., Berwick (Co. and Town).  
deWitt, C. E. A., Wolfville.

**LUNENBURG COUNTY**

Marcus, S., Bridgewater (McPy.).  
Reh fuss, W. N., Bridgewater.  
McKinnon, C. G., Mahone Bay  
Zinck, R. C., Lunenburg.  
Zwicker, D. W. N., Chester (Chester Mcpy).

**PICTOU COUNTY**

Blackett, A. E., New Glasgow.  
Chisholm, H. D., Springville.  
MacMillan, J. L., Westville.  
Stramberg, C. W., Trenton.  
Sutherland, R. N., Pictou.  
Benvie, R. M., Stellarton.

**QUEENS COUNTY**

Ford, T. R., Liverpool (Town and County).  
Hebb, F. J., Liverpool.

**RICHMOND COUNTY**

Deveau, G. R., Arichat (County).

**SHELBURNE COUNTY**

Brown, G. W., Clark's Harbour.  
Churchill, L. P., Shelburne (County).  
Fuller, L. O., Shelburne.  
Banks, H. H., Barrington Passage (Barrington Mcpy).  
Herbin, C. A., Lockeport.

**VICTORIA COUNTY**

MacMillan, C. L., Baddeck (County).

**YARMOUTH COUNTY**

Blackadar, R. L., Port Maitland (County).  
Burton, G. V., Yarmouth.  
O'Brien, W. C., Wedgeport.  
Siddall, A. M., Pubnico (Argyle Mcpy.).

Those physicians wishing to make use of the free diagnostic services offered by the Public Health Laboratory, will please address material to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute, Morris Street, Halifax. This free service has reference to the examination of such specimens as will assist in the diagnosis and control of communicable diseases; including Kahn test, Widal test, blood culture, cerebro spinal fluid, gonococci and sputa smears, bacteriological examination of pleural fluid, urine and faeces for tubercle or typhoid, water and milk analysis.

In connection with Cancer Control, tumor tissues are examined free. These should be addressed to Dr. R. P. Smith, Pathological Institute, Morris Street, Halifax.

All orders for Vaccines and sera are to be sent to the Department of the Public Health, Metropole Building, Halifax.

**Report on Tissues sectioned and examined at the Provincial Pathological Laboratory from April 1st., to May 1st., 1935.**

The number of tissues sectioned is 183. In addition to this, 35 tissues from 9 autopsies were sectioned, making 218 tissues in all.

Tumours, malignant .....	24
Tumours, simple .....	14
Tumours, suspicious .....	1
Other conditions .....	144
Tissues from 9 autopsies .....	35

**Communicable Diseases Reported by the Medical Health Officers  
for the month of April, 1935.**

County	Cer-Spi. Meningitis	Chicken Pox	Diphtheria	Influenza	Measles	Mumps	Pneumonia	Scarlet Fever	Tbc. Plumonary	Tbc. other Forms	V. D. G.	V. D: S.	Whooping Cough	German Measles	Paratyphoid	Erysipelas	Pink Eye	Lethargic	Encephalctis	TOTAL	
Annapolis...	1			2	37	55	1													96	
Antigonish...																					
Cape Breton...		3		15				2						1				2		23	
Colchester...				20	36						1								1	59	
Cumberland...		1			12			4												17	
Digby.....				5				4			3									12	
Guysboro...							1							13						14	
Halifax City ..	6	8			14			26						42						96	
Halifax.....							3						1	5						9	
Hants.....					5									1						6	
Inverness...				7	6		1	2		1				11						28	
Kings.....				5	51			1		1	1		22				2			83	
Lunenburg...					1			3												4	
Pictou.....				72			2	2	1					13						90	
Queens.....				25			4	5												34	
Richmond...																					
Shelburne...							4							37						41	
Victoria.....																					
Yarmouth...								9			2									11	
<b>TOTAL.....</b>	<b>7</b>	<b>12</b>	<b>151</b>	<b>162</b>	<b>55</b>	<b>13</b>	<b>57</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>145</b>	<b>..</b>	<b>..</b>	<b>4</b>	<b>1</b>	<b>..</b>	<b>623</b>		

**RETURNS VITAL STATISTICS FOR MARCH, 1935.**

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis.....	17	15	8	7	12	0
Antigonish.....	9	12	4	10	15	0
Cape Breton.....	108	115	47	63	58	0
Colchester.....	33	26	9	17	22	0
Cumberland.....	35	44	26	27	22	0
Digby.....	10	14	5	10	14	3
Guysboro.....	11	17	6	9	10	3
Halifax.....	101	111	62	71	77	3
Hants.....	19	24	9	15	10	3
Inverness.....	23	8	5	21	20	1
Kings.....	29	45	17	18	20	0
Lunenburg.....	16	22	22	14	16	1
Pictou.....	24	29	9	15	15	4
Queens.....	12	12	6	9	7	0
Richmond.....	18	15	1	10	14	1
Shelburne.....	18	19	6	13	12	2
Victoria.....	7	6	0	2	5	0
Yarmouth.....	16	17	10	18	10	0
	<b>506</b>	<b>551</b>	<b>252</b>	<b>339</b>	<b>359</b>	<b>21</b>

Plan Now to Attend

THE

**ANNUAL MEETING**

OF THE

**MEDICAL SOCIETY**

**OF NOVA SCOTIA**

---

A comprehensive scientific programme has been arranged.

The merger with the Canadian Medical Association will be discussed at the business session.

Everyone is promised a good time.

Bring your wife and family—they will be well taken care of.

**SYDNEY, N. S.**

**July 3rd and 4th**

## Branch Societies

**D**R. HUGH W. SCHWARTZ was elected president of the Halifax branch of the Medical Society of Nova Scotia at the annual meeting on April 24th in the Nova Scotia hotel. The meeting was one of the largest and most successful ever held by the branch. Other officers elected were:

Vice-President—Dr. E. K. Maclellan.

Secretary-Treasurer—Dr. Clyde Holland.

Executive—Dr. M. G. Burris, Dartmouth; Dr. E. T. Granville, Bedford; Dr. J. A. Noble and Dr. Ian Macdonald, Halifax.

Two presentations were made at the meeting. A painting by John Macgillivray, Halifax artist, of Dr. Murdock Chisholm and presented to him by the branch on the occasion of completing 50 years in the profession, was returned by his eldest son, Kenneth Chisholm.

### Accept Gift.

It was suggested that the painting of Dr. Chisholm, who had since died, be hung in the Victoria General Hospital. Mr. Chisholm made the presentation on behalf of the surviving members of the family. The gift was accepted on motion of Dr. J. R. Corston and Dr. H. K. MacDonald, who spoke in feeling terms of the late Dr. Chisholm.

A committee consisting of Dr. Corston, Dr. MacDonald, Dr. A. McD. Morton was appointed to look after details of removal and hanging of the painting in a prominent place in the hospital.

The other presentation was that of a silver mug to Dr. Clyde Holland, secretary, who recently became a father.

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## Doctor Wanted

A letter has been received by the Secretary from Mrs. J. H. Wasson President Sheffield Woman's Institute of Sunbury County, N. B. Mrs. Wasson is interested in getting a Doctor to locate at Sheffield. Full particulars may be had by writing directly to Mrs. Wasson.



One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in *Maclean's* and other leading magazines.



### Because "the office couldn't spare him"

THIS MAN has received many a warning from his body that all was not well with him.

And he has been given many a scolding by family and friends because of his do-nothing attitude. "I know, I know," he has replied, "but I haven't time to get sick. The office can't spare me. Fellow has to be on his toes every minute these days."

Here you see the result—the man who had to be "on his toes" lies flat on his back. And the office will *have* to manage without him. The bitter truth is that the office will manage without him even if he never recovers.

Cases like this have become almost common these past few years. Any number of people whose health has pleaded for attention, have been "too busy" to do anything about it. They have had the peculiar notion that it is a display of weakness to admit being sick.

That of course is utter nonsense. If you have had warnings that something is wrong,

the only intelligent thing to do is to see your physician. Those warnings may or may not indicate a serious disorder—your physician can tell. If they do, he can start you on the road to a cure or betterment of the condition. On the other hand, if these warnings indicate only some minor disturbance, aggravated perhaps by worry, he can set your mind at rest and institute whatever corrective measures may be needed.

There's no good reason to stay away from the doctor—there is every good reason to go to him. And the sooner you go, the less likely it is that you will have to endure the serious consequences of neglect.

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## Personal Interest Notes

DR. and Mrs. J. J. Macdonald of New Glasgow and their son were recent visitors in Halifax.

Dr. A. Fraser MacGregor of New Glasgow left the end of April on a ten day's visit to Montreal. He plans to take a short post-graduate course at the Montreal General Hospital.

Dr. L. R. Meech of North Sydney was a visitor in Halifax the middle of April.

On April 3rd Dr. A. F. Miller, Medical Superintendent of the Nova Scotia Sanatorium, Kentville, gave an illustrated lecture on the life and influence of Dr. E. L. Trudeau. Dr. Miller, a pupil of the famous Trudeau, gave a most inspiring lecture showing the influence of Trudeau on the Tuberculosis Movement in America.

At Yarmouth on April 3rd Dr. T. A. Lebbetter was the speaker at Kiwanis luncheon, taking as his subject "Looking Backward", and dealing for the most part with the life of Sir John Thompson. Dr. Lebbetter outlined the birth of the statesman in Halifax and drew a vivid picture of his life, his sorrows and triumphs, until his death in Windsor Castle, England.

Dr. Thomas H. MacDonald of Medford, Mass., returned to his home on April 16th, after spending a few weeks with his mother, Mrs. Rebecca MacDonald, New Glasgow, who had been seriously ill. We are glad to learn that Mrs. MacDonald is somewhat improved.

Dr. C. A. Herbin of Lockeport was recently at the Victoria General Hospital for treatment.

Dr. H. K. MacDonald, Professor of Surgery at Dalhousie University, visited Sydney and Glace Bay recently in a professional capacity. On his return to Halifax Dr. MacDonald was a passenger on the train which was wrecked at Heatherton near Antigonish. He and Dr. Fabian Bates, Dr. W. E. Fultz and S. G. McIsaac, D.D.S., all of Glace Bay, rendered valuable service in this disaster.

Dr. F. G. MacAskill of Glace Bay was a visitor in Halifax early in April.

Dr. D. J. MacMaster of Antigonish was a week-end visitor in Halifax during the middle of April.

Dr. and Mrs. M. A. Curry arrived in Halifax the end of April from England and are at the Haliburton Inn for two months.

# The Treatment of Menstrual Disorders with Emmenin & A. P. L.

These two hormones offer definite advantages in the treatment of functional menstrual disorders. The permanent character of the results obtained justifies the belief that Emmenin and A.P.L. provide a therapy superior to that of the substitution type.

*The anterior-pituitary-like gonadotropic hormone of the placenta.*

## A. P. L.

The most striking application for the use of the gonadotropic hormone—A.P.L.—is in the treatment of menorrhagia and metrorrhagia. It is for subcutaneous or intramuscular administration only and should not be administered until the possibility of infection, fibroid polyp, or carcinoma is first excluded.

*The orally-active oestrogenic hormone of the placenta.*

## Emmenin

Emmenin—the orally-active, oestrogenic hormone—is indicated in the treatment of dysmenorrhoea (when the pain precedes the flow), menstrual headache, menopausal disorders and amenorrhoea (secondary type).

●

Emmenin Liquid in specially sealed 4 ounce bottles  
A.P.L. in boxes of 6 ampoules (1 cc. each)  
5 cc. rubber-stoppered vials.  
10 cc. rubber-stoppered vials.

●

These placental hormones are prepared and biologically standardized in accordance with the technique of Dr. J. B. Collip, Department of Biochemistry, McGill University.

Detailed literature will be gladly mailed upon request

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**MONTREAL**

**CANADA**

At the Grace Maternity Hospital, Halifax, on April 18th, to Dr. and Mrs. C. W. Holland, a son.

Dr. and Mrs. W. Sidney Gilchrist of Angola, Portuguese West Africa, at present on furlough in Halifax, are receiving congratulations on the birth of a son.

Dr. W. B. Moore, for many years physician of the D. A. R., practising in Kentville, has returned to Halifax after ten years spent in travelling all over the world.

Dr. Frank J. Hebb of Liverpool was a week-end visitor with his mother in Halifax recently.

The many friends of Mayor J. A. Sponagle, M.D., of Middleton will be pleased to learn that he is steadily improving from his severe illness.

Dr. R. MacK. Saunders of Lunenburg was a recent visitor in Halifax.

Dr. Patton tells of the early history of Cape Breton. At the weekly luncheon of the Progressive Club of Halifax held in the Lord Nelson Hotel on April 17th, Dr. W. W. Patton, M.L.A., of Port Morien, spoke on the early history of Cape Breton Island, particularly on the historical fort at Louisburg. The meeting was well attended and many expressions of appreciation were heard following Dr. Patton's talk.

Dr. W. D. Forrest, who has been Chairman of the Board of Health of the City of Halifax has recently given notice through the press that he will not consider reappointment. He pointed out that the amount of work which would be involved since the Health Board has taken over the City Tuberculosis Hospital would require more time than he would care to give. Dr. Forrest was appointed Chairman of the Board of Health by ex-Mayor J. B. Kenney in 1925. With the exception of one year he has held the position ever since and has served under five mayors.

At the meeting of the Town Council of Glace Bay held April 5th, Dr. J. R. Macneil, who was recommended for the position by the Poor and Sanitation Committees, was appointed Medical Health Officer for the coming term.

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## Physician Wanted

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A letter has been received from the Rev. W. A. Wood of the United Church at Harcourt, Kent Co., N. B., who is most desirous of securing a resident physician for this district. He states in his letter that there is a good opening there for an aggressive man, and that up until two years ago Harcourt has always supported a physician. Anyone interested will kindly communicate directly with Rev. Mr. Wood.

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**HYPNOTIC**  
*for*  
**DELAYED**  
*and*  
**INTERRUPTED**  
**SLEEP**



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Evipal is particularly indicated for persons who awake a few hours after retiring and then cannot resume sleep; also, for professional men who are called upon to work at night and require a hypnotic that will assure brief and restful slumber, until the customary hour of awakening, without drowsiness.



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### Dreaded Scourge of Cancer Death List Varies in Peoples.

There were 10,646 deaths from cancer in Canada during 1933. In 1928 there were only 7,614 deaths. This indicates the great rapidity with which cancer is increasing.

This increase in the death rate is not peculiar to Canada, but applies to all countries, In Europe where the population is an older one than in Canada, the death rate is considerably higher. For example, the death rate in Germany is 116 per 100,000; in Switzerland, 139 per 100,000; in England and Wales, 141 per 100,000; in Denmark, 141 per 100,000. In Scotland there is a death rate of 143 per 100,000; and in Austria, 148 per 100,000.

In Canada, the death rate varies. According to the Dominion Bureau of Statistics, the average for the years 1931-32 for the city of Saint John, N. B., excluding non-residents, gives us a death rate of 167 per 100,000 of population; while the average death rate in the city of Windsor for the same period was only 69. There is a greater percentage of older people in Saint John than in Windsor. The same applies to Toronto, in which the death rate was 118 per 100,000; in London, the death rate was 137 per 100,000 and in Ottawa 127 per 100,000 of population. Edmonton and Regina with a younger population, have a death rate of 82 and 79 per 100,000 of population respectively. The death rate for Canada as a whole, during this period was 93.9 per 100,000. In the year 1933 it has arisen to 100 per 100,000.

The majority of the 10,646 from cancer in 1933 were unnecessary deaths. If the disease had been diagnosed sufficiently early and treatment instituted immediately a diagnosis was made, there is no doubt that a very great many of these lives would have been saved.

Cancer to-day is the second leading cause of death, being second only to heart disease and is apparently increasing. A little more than 100 years ago, the expectation of life was only 21 years, and to-day it is 60 years. This increase in the expectation of life is due to numerous factors, a higher standard of education, better knowledge of disease prevention and control, a highly trained medical and nursing personnel, and money with which to fight disease. Today in civilized countries, one rarely hears of an epidemic of cholera, of plague, of typhus or yellow fever which one hundred years ago carried away thousands of people annually. The disease of diphtheria, which was responsible for the deaths of so many children until the year 1894 when anti-diphtheria serum was discovered, is practically a thing of the past. One by one the infectious diseases have been brought under control, and the expectation of life has been increased.

Cancer is a preventable disease, and it is quite possible for us to control cancer as we have controlled cholera, plague, yellow fever, diphtheria and other diseases. The chief weapon is money. Given sufficient money to provide adequate means for early diagnosis and subsequent treatment, we should be able to reduce the cancer death rate as we have done that of other diseases.

The money obtained from the King George V. Silver Jubilee Cancer Fund will be used for the purpose of cancer prevention and control in Canada. Please send a dollar to Lady Bessborough, Ottawa.

All funds collected will be expended in Canada.

When sending in your dollar, be sure to write your name plainly, together with your postal address.



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Unexcelled Shadow Forming, Perfect Suspension. No hardening and retention of excreta. Satisfactory for oral and rectal use.



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## OBITUARY

It is with sincere regret that the BULLETIN announces the death of two well known Nova Scotia medical men; that of Dr. Charles W. Stramberg of Trenton, which occurred on May 18th, after a short illness of six weeks, and Col. Nat MacDonald, M.D., of Sydney Mines on May 22nd, after only a few hours' illness

Dr. Stramberg was born in River John, a son of the late Mr. and Mrs. J. J. Stramberg, where he received his early education, then going to Pictou Academy and the Provincial Normal College at Truro. After teaching for some years he entered Dalhousie Medical School from which he graduated in 1910. He first practised in Northport, Cumberland County, and Walton, Hants County, then moved to Trenton where he carried on an exceptionally large and successful practice for twenty-two years. Dr. Stramberg is survived by his wife, formerly Miss Bessie MacRae of Baddeck, and one daughter, Miss Elsa; also three sisters, Mrs. Spurgeon Gammon of New Glasgow, Miss Viva Stramberg and Mrs. Edward Munroe of River John.

Dr. MacDonald received his early education at Sydney Mines, then going to Dalhousie Medical School from which he graduated in 1906, and practised his profession at Sydney Mines from that time until his death. He enlisted in the Royal Army Medical Corps at the outbreak of the Great War, later transferring to the Canadian Army Medical Corps. Dr. MacDonald also participated in the Boer War, enlisting in the Mounted Rifles and the R. C. R. His many friends will learn with deep regret of the passing of this well known army and medical man.

The BULLETIN expresses its sympathy to Dr. W. R. Dunbar of Truro in the loss of his wife, Mrs. Lillie Renshaw Dunbar, who passed away at their home on Prince Street on April 25th. Mrs. Dunbar was a native of Montreal. Beside her husband there remain to mourn her one sister, Katharine, and one brother, William, of Montreal.

Dr. R. F. MacDonald of Antigonish received word on April 16th from Jersey City of the death of his brother, Richard, a son of the late Ronald MacDonald, Gow, Antigonish Landing.

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