

The NOVA SCOTIA MEDICAL BULLETIN

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EDITORIAL

QUIS CURAT?

One of the anomalies of the Nova Scotia Hospitalization Insurance Scheme is the lack of provision for a group who in Service usage would be called "Walking sick". These are the people needing specialised treatment such as Radiotherapy, certain types of Physiotherapy and Speech therapy. They do not really need all the facilities of a modern acute hospital such as the Victoria General or the Halifax Infirmary, yet they do need to be in Halifax daily for periods of up to a month and to attend for a treatment which may take no more than half an hour.

Under favourable circumstances these patients can board either with relatives or in rooming houses or hotels, but when conditions are other than ideal they must be hospitalised, even when their needs would perfectly well be met by the simplest of custodial care such as could be provided by a hostel. This could be built perhaps on a Motel plan, with facilities for meals and under the supervision of a house mother who would be a registered nurse. She would be able to undertake the issue of medications, minor nursing procedures, and keep a general watch and ward on the patients' health.

Unfortunately the Act requires that a hospital be acceptable under the Public Hospital Act (which does not apply to institutions providing custodial care only) before it is eligible for support of the cost of standard ward care—even though in the case posed that cost might be ten dollars a day rather than the thirty or so dollars in the V.G., with a consequent economy in the use of public funds. This then precludes the operation of a treatment hostel under the Hospitalisation Insurance Commission unless the Act is amended - which seems unlikely. What alternatives are possible?

Such a hostel might be operated by a separate agency of Government, without benefit from the Insurance Commission. They would need to charge patients the daily cost of maintenance, but presumably some source might be found for funds to pay for indigents, so that a means test could be applied, and the poorest excused from payment. The possibility of a voluntary agency taking the task on seems unlikely.

Some brightening of the horizon does, however, come from the recent news that capital funds may now become available for the construction of facilities of this type. If this is so, at least one major hurdle will have been overcome,

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as so far we have not even considered the question of where the first costs are to come from to build and equip our hostel, and without capital there would be no hostel to administer.

Recently the Canadian Cancer Society has evinced an interest in this problem, partly as the largest group concerned are cancer patients attending for radiotherapy. They are to be congratulated for their public spirit, and we should all endorse their efforts, giving them what assistance we can. Unfortunately they are precluded by their constitution from the active operation of hostels or treatment facilities, but they are doing all that they can to find a way to provide the capital and an agency to take over the operation.

The Medical Society has already acknowledged this need in their Brief to the Royal Commission. Let us hope that we shall see some progress in this regard before too long.

J.F.F.

SPECIAL MEETINGS OF EXECUTIVE COMMITTEE

A Special Meeting of the Executive Committee was called by the Chairman Dr. L. C. Steeves, on December 22, 1962, to review the views from Branch Societies as to principles which would apply in the finalization of the proposed Schedule of Fees. The Branch Society views had been requested by the Executive Committee as a result of discussion of the report from the Committee on Fees to the 3rd Regular Meeting of the Executive December 1st, 1962.

The views of the Branch Societies, as in the Minutes of their Special Meetings, were presented by the Branch Representatives and discussed. Resolutions were passed by the Executive and forwarded to the Chairman of the Committee on Fees.

A second Special Meeting of the Executive Committee was called by the Chairman on January 26, 1963, to consider the reply from the Chairman of the Committee on Fees. On the basis of this letter the Executive Committee made plans to proceed to publication of a Fee Schedule. Details of the foregoing are included in the Newsletter to each member of The Medical Society of Nova Scotia.

C.J.W.B.

THE MEDICAL SOCIETY OF NOVA SCOTIA

HOUSING APPLICATION FORM

110th Annual Meeting

BRAEMAR LODGE, Yarmouth Co., N. S.

July 2 - 5, 1963

Tues., Wed., Thurs. and Fri.

Dr. C. J. W. Beckwith, Executive Secretary, The Medical Society of Nova Scotia, Dalhousie Public Health Clinic, Halifax, Nova Scotia.

Please reserve for me the following accommodation: -

A. IN MAIN LODGE:

Double Room with bath - twin beds - including meals.

- () Lakefront view - \$12.00 per person, per day.
() Woodland view - \$10.00 per person, per day.

B. IN LAKE LODGES:

Double Room with bath - twin beds - including meals.

- () Lakefront view - \$12.00 per person, per day.
() Woodland view - \$10.00 per person, per day.

C. IN COTTAGE:

Cottage with sitting-room and two or three twin-bedded bed-rooms, including meals \$11.00 per person, per day.

I expect to arrive July.....A.M.....P.M.....

I expect to depart.....

Name of persons to occupy the above accommodations:

Name:

Address:

In view of the attendance expected, no single rooms will be available at BRAEMAR LODGE, unless cancellations permit. If coming alone please check here.....if you are willing to share a room. If you have a preference for some party to share a double room with (or couple(s) to share cottage with) please insert name(s) below:

I would prefer to share accommodation with: -

Name:

Address:

Name:

Address:

Please check if you are interested in any or some of the following: -

- () Water Skiing () Deep Sea Fishing
() Skeet shooting () Sail Boating () Golf

Signed: Date:

PRESENT CONCEPTS OF THE SURGICAL TREATMENT OF PEPTIC ULCERATION

Frederick G. Kergin, M.A., M.D., M.S., F.R.C.S. Eng.
and (C), F.A.C.S.*

The topic upon which I have been asked to speak, "Peptic Ulceration", includes peptic lesions of the stomach, the duodenum and on occasion even of the jejunum. There was a time when the surgical treatment of gastric and duodenal ulcers was guided purely by empiricism with very little knowledge of the associated pathological physiology. Today, even though the basic cause of these lesions still escapes us, at least we have some knowledge of the disturbances of the normal function of the stomach which are associated with the occurrence of peptic ulceration. Before going on to discuss the principles which now guide us in our choice of operation, I wish to refer briefly to these known facts.

For simplicity, let us think of duodenal ulceration first. This condition is associated with marked overactivity of the cephalic phase of gastric secretion, that being the type of secretion mediated through the vagus nerves. That type of secretion has been known to exist since the days of Beaumont and was extensively studied by Pavlov. It was Dragstedt who demonstrated that in a duodenal ulcer the response is not only cyclic but this phase continues throughout the day and night resulting in a very marked excess of gastric secretion during sleep. In these patients the secretion is highly active, containing increased amounts of free hydrochloric acid and pepsin.

Although Dragstedt's observations do not explain why a patient develops this overactivity of the cephalic phase of gastric secretion, they do explain the rationale of the traditional medical treatment for a duodenal ulcer. The frequent feeding supplies food, and particularly protein in such forms as milk, for its buffering action. Antacids such as aluminium hydroxide have a similar effect. Banthine and Probanthine inhibit parasympathetic function.

These observations also explain why certain surgical procedures, carried out on the stomach, have been relatively successful or frequently unsuccessful. Gastrojejunostomy alone did nothing to alter the fundamental physiological abnormality. At best it might allow for some increased reflux of alkaline upper jejunal content into the stomach to partially neutralize the highly acid gastric content. It frequently resulted in persistence of the original duodenal ulcer, or alternatively exchanged this for a jejunal ulcer. Pyloroplasty alone had the same basic fault.

A partial gastrectomy is something of an improvement. It also is quite an indirect approach because it removes the distal part of the stomach, which is not the part which produces the acid and pepsin. It includes the antrum where the humoral factor, gastrin, is manufactured. This is not the important factor in a duodenal ulcer. It was learned that a modest resection of the stomach, involving only forty to fifty percent, frequently resulted in failure. It was only when resections were extended to include seventy or seventy-five percent of the total stomach that a relatively high degree of success was obtained, with the recurrence rate in the neighbourhood of three percent.

Having demonstrated this reasonably satisfactory success rate, partial

*Professor and Head Department of Surgery, University of Toronto.

gastrectomy earned a place as an orthodox treatment for a duodenal ulcer, which it still holds. It is proper that we should examine some of the advantages and disadvantages of this method.

It has become a well established standard type of operation which all trained surgeons know how to do and should have a mortality rate in elective cases of not more than two percent. It allows, in most cases, for the removal of the ulcer, which is of questionable importance, and is at the same time a procedure designed to prevent further ulceration. If carried out in a radical fashion it has a high rate of success.

Having said that, one has perhaps said all that one can say in favour of partial gastrectomy in a duodenal ulcer. The disadvantages are very real. The stomach is a very useful organ and the degree of disability which any given patient will suffer after removal of seventy percent of it is quite unpredictable. Some patients remain amazingly well over many years with no appreciable subjective symptoms and no nutritional problem. Many others continue for long periods of time or even indefinitely to have "small stomach" symptoms, fail to regain normal weight and show a significant degree of steatorrhea. Others have some degree of the dumping syndrome and in a large series these will amount to about fifteen percent, and in five percent this will be a severe disability requiring further corrective surgical treatment. More will be said of the dumping syndrome later.

Up until now nothing has been said of the method of reconstruction following partial gastrectomy. This may be either by the Billroth 1 technique or by the Polya method. In spite of the enthusiasm of Harkins for the Billroth 1 technique, this has found little favour with most surgeons as reconstruction following resection for a duodenal ulcer. There are technical difficulties because of the diseased state of the first portion of the duodenum; the fact that the open end of the stomach must be brought across to meet the duodenum without tension tends to lead to insufficient resection; a residual inflammatory reaction in the duodenum may result in stenosis at the anastomosis. As Harkins himself demonstrated, this reconstruction does not protect the patient against the dumping syndrome.

The usual type of reconstruction following partial gastrectomy for a duodenal ulcer is by the Polya method, either antecolic or retrocolic. Many surgeons favour the long loop antecolic reconstruction because they find it easier to do and also because they think that if the patient should have the misfortune to develop a jejunal or stomal ulcer, this reconstruction leaves a situation in which it is easier to go back and do a secondary resection. I have always favoured the retrocolic reconstruction because I have not found any significant difficulty in performing the procedure; I have disliked the creation of an unnatural tunnel between the long loops of jejunum and the colon, with its known tendency to internal hernia of the afferent loop behind the efferent loop, and also because I have always considered that it is more physiological to bring the gastric content into the jejunum as close to the duodenum as possible. I have also had the impression that the nutritional state of these patients is better than those with the long loop antecolic reconstruction.

This impression receives some support from a very careful study carried out by Butler in Bristol and published in the *Annals of The Royal College of Surgeons of England* in November 1961. He made a careful study of the fat excretion in the stool of a series of patients who had been subjected to

partial gastrectomy with various types of reconstruction, the studies being carried out at three months post-operative and again at three years post-operative. An interesting observation was that in every type of reconstruction there was an increase in the degree of steatorrhoea over this period of three years. With the Billroth I reconstruction only one percent of the patients showed significant steatorrhoea at three months rising to eight percent after three years. With the retrocolic Polya reconstruction the figures were twenty percent rising to thirty-three percent. With the antecolic reconstruction the figures were sixty-one percent rising to seventy-three percent. These observations lend strong support to the use of the Billroth I type of reconstruction providing it is technically suitable, as in partial gastrectomy for a gastric ulcer or gastric carcinoma.

In the light of Dragstedt's observations it seems obvious that one should deal with the known abnormality in a duodenal ulcer and interrupt the cephalic phase of gastric secretion by an attempt to obliterate the vagus function. It was soon found that vagotomy alone led to certain difficulties. Many patients had prolonged gastric retention, some had troublesome chronic diarrhoea and some had belching of foul gas from the stomach. Some even went on to develop gastric ulcers, apparently due to stasis in the stomach. These effects were not surprising because not only does the vagus nerve activate the gastric secretion but it also carries motor impulses to the stomach to cause contraction, and inhibitory impulses to the pylorus to cause relaxation. Destruction of the vagus function results in an atonic stomach and an obstructed pylorus. In the absence of free acid and in the presence of stasis in the stomach, the contents become infected, resulting in fermentation, production of foul gas and also intestinal irritation with resulting diarrhoea. When Dragstedt and his co-workers added an adequate drainage procedure to the vagotomy, these difficulties were overcome to a large degree. This procedure may be a generous pyloroplasty or a gastrojejunostomy placed at the most dependent part of the stomach.

A vagotomy with a drainage procedure has become an exceedingly popular way of treating a duodenal ulcer. What then are its advantages and disadvantages? The advantages are numerous. It is a less severe procedure than a partial gastrectomy, can be done more quickly and leaves fewer suture lines as a potential source of leakage and peritonitis. This is somewhat important in an elderly or debilitated patient. It is less mutilating and retains the whole stomach. It leaves a situation in which, in the event of failure, one can always go back and do a partial gastrectomy without difficulty. Our experience to date would indicate that the nutritional state is better after this procedure than after a major resection and the dumping syndrome is less evident.

The disadvantages, to a degree, are related to technical details. It is not easy to be certain that one has done a complete vagotomy. Most of the failures can be shown by an insulin test meal or at a subsequent operation to be due to failure to interrupt completely the vagus supply to the stomach. An inadequate pyloroplasty or a badly placed gastrojejunostomy may lead to poor drainage and may even result in a gastric ulcer. When we do a vagotomy, we do not quite know what we are doing to a human being. The effects of total vagotomy on the biliary system and pancreas have not been fully elucidated. There is some suggestion that pancreatic secretion is reduced, with resulting impaired fat and protein digestion and a degree of

malabsorption. Finally, we learned long since that it may take a very long time to discover all the faults in any given surgical procedure designed to cure a duodenal ulcer. However, in view of the very favourable experience to date with vagotomy, in our own hands and as reported in the literature, this operation, combined with a drainage procedure, must be considered the treatment of choice for an intractable duodenal ulcer.

Because of concern about the side effects of total vagotomy, Burge, in England, has been practising and advocating selective vagotomy with preservation of the hepatic branch of the anterior vagus nerve and the coeliac branch of the posterior vagus. He has some evidence that by this method he can completely remove the vagus influence on the stomach but preserve the vagus influence over the biliary system and the pancreas. We have operated upon a few patients by this method but are as yet unable to form any opinion of its efficacy.

Let us now turn to the management of gastric ulcer. The associated pathological physiology is quite different. In a gastric ulcer there appears to be, for reasons unknown, an overactivity of the hormonal control of gastric secretion by gastrin. Vagus function remains normal so that vagotomy has no useful place in treatment. However, the effective treatment is fairly obvious and that is to remove the source of gastrin, which is the antrum of the stomach. It is a strange fact that jejunal or stomal ulceration is virtually unknown following operations for a peptic ulcer of the stomach and also recurrence is quite uncommon. Although our own practice has always been to remove the ulcer, as well as the antrum, it is reported on good authority that if the gastric ulcer happens to lie high on the lesser curve and the surgeon simply removes the antrum, then the ulcer will invariably heal. If one should choose to adopt this method, and I cannot recommend it from personal experience, obviously one should be quite satisfied that the ulcer is in fact benign and not malignant. A biopsy and frozen section should settle this matter.

The problem of reconstruction is also different in the case of a resection for a gastric ulcer. The resection need not be radical, so there is plenty of stomach to reach the duodenum; the duodenum itself is healthy and mobile so that a Billroth 1 reconstruction is feasible; it is the operation of choice. It is certainly a more physiological reconstruction than the Polya, and Butler's figures confirm this.

Up until this time nothing has been said about the indications for surgical treatment in peptic ulceration of the duodenum, or stomach. Time will permit only a rather brief reference to the complications which require surgical interference.

In perforation of a peptic ulcer I really cannot see any virtue in treatment by a gastric tube and suction except in rare cases in which the patient presents very late indeed with evidence that either he has sealed the perforation or has localized a sub-hepatic abscess. The real question is whether one is justified in combining a definitive procedure, designed to cure the patient of the ulcer tendency with the procedure for the perforation. Some years ago Tovee, at the Toronto General Hospital, re-examined a series of patients who had originally been treated for a perforated duodenal ulcer by simple closure. He found that one-third of them had very little subsequent trouble, one-third had continuing ulcer symptoms and one-third had severe symptoms requiring a secondary surgical procedure. This means that in about two-thirds

of the patients that we see with a perforated ulcer, benefit would be derived if they could be permanently relieved of symptoms at the time of the primary operation, and one-third would have an operation which is unnecessarily radical. In the past few years there has been an increasing tendency in our centre, when a patient is seen within the first six or eight hours after perforation and is in good general condition, to perform a vagotomy and pyloroplasty as the primary procedure. We have had no difficulty from contamination of the mediastinum due to the operation on the vagus nerves. There has been a similar trend to perform a limited gastrectomy with Billroth I reconstruction for a perforated benign gastric ulcer.

At one time we believed that the one remaining indication for a simple gastrojejunostomy as treatment for a duodenal ulcer was the old patient with pyloric obstruction and a long history of ulcer indigestion, the so-called "burnt-out" ulcer. This is probably still true, but one must be very sure that in fact one is dealing with a scar in which there is no active ulcer present. More and more we are seeing very old people with active duodenal ulcers and they are quite capable of developing a jejunal ulcer if we do a simple gastroenterostomy. We feel that the majority of these patients, presenting with obstruction at the pylorus, should have a proper ulcer operation and at the moment we favour vagotomy and pyloroplasty or vagotomy and gastrojejunostomy.

Bleeding is another complication which may lead to an emergency operation and a decision as to what is the best form of treatment for that particular patient. Time will not permit an extended discussion of the pros and cons of early operation versus prolonged observation and transfusion in these patients. A few rather dogmatic statements must suffice. In this day and age no patient should be allowed to die from hemorrhage. If one studies the pathology of the ulcer in those patients who have died of hemorrhage from, for instance, a chronic duodenal ulcer and sees the dense scar with the artery held open in the centre of it, quite unable to contract or retract, one marvels that any of these patients ever stop bleeding spontaneously. But we know that some do. Our problem is to recognize, at the right time, which patients require an operation and which do not.

It is very helpful to know the source of the bleeding. The history, and in particular, a previous gastrointestinal examination may give us this information. We have come more and more to use emergency gastro-intestinal examinations in bleeding patients. These examinations may be confusing if the stomach contains large amounts of clot, but very often they are extremely helpful.

At the Toronto General Hospital, the management of a patient with a bleeding peptic ulcer, or in fact any severe upper gastro-intestinal hemorrhage, is a joint medical and surgical responsibility. The patient is admitted to a medical ward, the resident surgeon notified at once and a decision for or against surgical treatment is made in consultation between the staffs of the two departments. In general, we feel that any patient who comes into hospital bleeding from a peptic ulcer and continues to bleed actively over a period of eight to twelve hours should be operated upon as an emergency after proper restoration of blood volume. If a patient comes into hospital bleeding and then stops, and again has a major hemorrhage while under treatment in the hospital, then he should be operated upon early in the second hemorrhage. If a patient with a known duodenal ulcer who is under medical treatment demonstrates that the treatment has failed by having a major hemorrhage,

and comes to hospital early and in good general condition, then he can be protected against the dangers of hemorrhage and also have the definitive surgical treatment which obviously is necessary without delay if he is operated upon at once.

In the case of the bleeding duodenal ulcer, there is an increasing tendency in our hospital to open the duodenum, underrun the bleeding vessel with non-absorbable sutures and to sew the margins of the ulcer over the vessel, using catgut. The opening of the duodenum is then converted into a pyloroplasty and a vagotomy completes the procedure. This has been done as an emergency procedure about thirty times during the past two years and our results to date have been most gratifying. There has been no recurrence of bleeding in this group. In the case of a bleeding gastric ulcer the usual procedure is a partial gastrectomy with excision of the ulcer.

The problem of distinguishing a malignant from a benign ulcer applies almost exclusively to the stomach. The distinction is not always easy, particularly in pre-pyloric ulcers, even with the help of gastroscopy and the gastric test meal. Again, one cannot go into all the factors that may influence a decision but I would suggest that one should lean toward operative treatment rather than ultra-conservatism in one's approach to gastric ulcers, particularly if there is any possible doubt as to the fundamental nature of the ulcer.

The commonest indication for a surgical operation on a patient suffering from a peptic ulcer is failure to cure the ulcer and control the symptoms by other methods of treatment. Just what constitutes failure of medical therapy is beyond the scope of this paper. Suffice it is to say that I have already suggested that the treatment of choice at the present time for most patients with a duodenal ulcer is vagotomy and pyloroplasty or vagotomy and gastrojejunostomy. The latter may be favoured where the first portion of the duodenum appears to be so inflamed that there is a hazard in performing a pyloroplasty. In the case of a gastric ulcer, the treatment of choice is a moderate distal gastrectomy, with excision of ulcer and a Billroth 1 reconstruction.

The dumping syndrome is a notorious complication of any operation on the stomach, but actually it is only one of a number of symptom complexes which may become apparent after a gastric operation and these can be lumped together as the post-gastrectomy syndrome.

After any major gastric resection, as might be done for a duodenal ulcer, it is normal for the patient to exhibit the "small stomach" syndrome. This is characterized by a feeling of fullness or even satiation following the ingestion of less than a normal meal. If the patient is encouraged to go on eating all that he can with any degree of comfort, the gastric remnant gradually accommodates itself and these patients eventually may eat a normal meal with satisfaction. During the interval, the patient should be advised not to take liquids with his meals but to reserve what gastric capacity he has for solid food.

When used strictly the term "dumping syndrome" refers to a series of symptoms which typically come on within fifteen minutes of taking a meal and last for about forty-five minutes to one hour. The symptoms are remarkably similar to those of a mild hypo-volemic shock. The patient sweats, has a feeling of weakness or even faintness, nausea, palpitation and occasionally

has explosive diarrhoea. The symptoms are partially or even completely relieved by lying down. This series of symptoms appears to be related to the rapid emptying of the stomach into the upper small bowel, associated with the intestinal hurry which results. A number of theories have been evolved to explain this syndrome, none of which is universally accepted. The symptoms have been explained on jejunal distension, on the basis of either hyperglycemia or hypoglycemia, pooling of blood in the splanchnic area or hypovolemia. The symptoms could easily be explained on the latter basis and there is experimental evidence of reduced blood volume following the taking of a meal due to the sudden outpouring of plasma in response to the high osmotic pressure of the mixture of food which suddenly enters the jejunum. These patients can have some symptomatic relief if they take a diet which is low in carbohydrate and high in protein and fat. Many of the milder cases will improve gradually but there is a residue of some five percent of patients who have had a major gastric resection in whom the symptoms are disabling. Many of these can be helped by a conversion operation, such as converting a Polya reconstruction into a Billroth 1, or alternatively by introducing a segment of jejunum between the gastric remnant and the duodenum.

A degree of the dumping syndrome may follow any type of gastric resection but is undoubtedly more common following the more radical resections for duodenal ulcers.

A few patients will display similar symptoms but coming on two or three hours after a meal. If their blood sugar levels are studied it will be found that some of these patients show hypoglycemia at this time, due to a rebound phenomenon. The sudden absorption of carbohydrates from the jejunum, following a meal, results in the production of insulin which outlasts the tendency to hyperglycemia with a subsequent fall on blood sugar to levels which give symptoms. This syndrome is also improved by taking a low carbohydrate diet.

There is one other type of post-gastrectomy symptom complex, which has a mechanical basis. With the long loop antecolic Polya type of reconstruction there is a tendency for kinking and some degree of obstruction of the afferent loop. With the sudden outpouring of bile and pancreatic juice following a meal these patients develop tension in this obstructed loop with resulting upper abdominal discomfort, or even cramps, associated with nausea and a bile regurgitation. If these patients are given a swallow of barium, the afferent loop usually fails to fill because of the partial obstruction. These patients are greatly relieved if a secondary operation is done and an enteroenterostomy made between the afferent and efferent loops.

I wish to refer very briefly to the ulcerogenic tumour of the pancreas described by Zollinger and Ellison. When carrying out any surgical procedure for a peptic ulcer it is wise to examine the pancreas carefully, and particularly so if the patient appears to have an unusually severe ulcer diathesis. If what appears to have been an adequate operation for a duodenal ulcer has failed, and particularly if the secondary ulceration involves the jejunum, a careful examination of the pancreas is mandatory. Certain of these patients will show severe associated diarrhoea, and a few will show diarrhoea alone without a demonstrable peptic ulcer. We have seen one such patient recently. McPhedran and his co-workers at the Banting Institute in Toronto have demonstrated by the use of extracts of such a tumour that

the diarrhoea is purely secondary to the tremendous outflow of irritating gastric juice, which has a laxative effect, and not due to any direct effect on the intestine itself.

At least sixty percent of these ulcerogenic tumours are malignant and frequently, by the time they are recognized at operation, secondary carcinoma of the liver or lymph nodes will be demonstrable. The secondary lesions, like the primary lesion, produce a gastrin-like hormone, so that even if the primary tumour is capable of removal, the ulcerogenic influence will continue. The tumours are usually of a low-grade malignancy so that the patient may continue to live for a considerable period in the presence of residual tumour. If a situation of this type is encountered, it is proper to remove the tumour as far as possible and to perform a total gastrectomy to protect the patient against persisting and recurrent peptic ulceration.

Conclusion:

For a duodenal ulcer the operation of vagotomy combined with a drainage procedure must still be considered as under trial. To date, our own results and those reported by others are quite satisfactory as far as the rate of recurrence is concerned, and in the case of those patients who do have recurrent ulceration, the cause is usually demonstrably a technical error. Having referred to the disadvantages of partial gastrectomy and emphasized the virtues of a vagotomy with preservation of the stomach, I believe that we must conclude that at present the latter operation with a drainage procedure is the treatment of choice for a duodenal ulcer.

In the light of our present knowledge of the patho-physiology of a benign gastric ulcer, the operation of a moderate distal gastrectomy with Billroth I reconstruction appears to be well conceived and certainly gives very satisfactory results.

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FROM THE BULLETIN OF 40 YEARS AGO

The Medical Society of Nova Scotia Bulletin, Dec. 1922

REGULAR MEDICAL EXAMINATIONS

A large number of our people had the advantage of frequent physical examinations brought forcibly to their attention during Cancer week. The experience of the Life Extension Institute has demonstrated that an astonishingly small proportion of seemingly healthy people are not in need of some medical attention. Our members are asked to give careful consideration to every applicant for such examination, to make the examination complete and thorough in every respect, and to give explicit advice relative to health habits. The idea of regular examinations will appeal to everyone as being so rational that it should have every encouragement. The extent to which it will become a custom will, of course, depend upon the success of physicians in impressing its value upon their clientele.

OBSTETRICAL EMERGENCIES

M. G. TOMPKINS, JR., M.D.

Halifax N. S.

With the exception of traumatic surgery, there is no area in medicine where acute unexpected emergencies occur so frequently and require greater judgment in their treatment than in Obstetrics.

These emergencies may be broken down into four main groups:

1. Haemorrhage.
2. Foetal Distress.
3. Infection.
4. Toxaemia.

Haemorrhage is still the main cause of maternal death in Nova Scotia. In the last three years 58% of all deaths were due to haemorrhage. Of these the abruptio and the ruptured uterus led the list, followed by post-partum haemorrhage and inverted uterus. There were no deaths from placenta previa.

In the acute antepartum haemorrhage the first procedure is to have the patient admitted to hospital and on admission to be grouped and cross-matched for blood, leaving a No. 19 needle in the vein with glucose and water running slowly. Following this an accurate diagnosis is made. I think it is fairly easy to diagnose the typical abruptio placenta and placenta previa. Unfortunately in only about 50% of antepartum haemorrhage are we able to define the cause clearly. The remainder are usually mild and do not represent a hazard to the mother or child. The abruptio, with the findings of shock, usually out of proportion to the blood loss, painful contractions with a tender uterus which is irritable on palpation with the presenting part engaged on abdominal examination, is pretty typical. The presence or absence of the foetal heart usually dictates the form of therapy. If the foetal heart sounds are present and the patient only in early labour and a primipara (which she usually is), a Caesarian Section is the procedure of choice. If the foetal heart sounds are not present, then conservative measures should be carried out with rupture of membranes, Pitocin drip carefully supervised, adequate replacement of fresh blood, having in mind the possibility of afibrinogenemia occurring. The usual error is that inadequate blood is replaced. The best guide in this regard is the pulse rate which will usually come down below 100 and the urine production maintained at 15 drops/minute when adequate volume has been restored. The use of manual dilatation of the cervix or excessive use of Pitocin are contraindicated and lead to uterine rupture.

Placenta Previa does not appear to be such a problem to the mother but still represents a very hazardous condition for the child. Prematurity with death is still very troublesome. The main problem is to treat the patient conservatively and attempt to carry the mother to 38 weeks, when definite treatment is given. These people require close observation. The old rules of pelvic examination **only** in the O.R., double set-up and adequate blood for replacement still hold. Despite conservative measures one is often forced to section a placenta previa before 38 weeks because of persistent haemorrhage.

Uterine Rupture requires immediate surgical interference. To attempt conservative measures, to await for an improved state before surgery is attempted, will result in a mortality. When the haemorrhage is stopped the patient will improve. Spontaneous rupture from previous classical Caesarian is common. The latter procedure should not be done except in very rare instances, as one finds for example, in an impacted transverse presentation. Two maternal deaths occurred in Nova Scotia recently. There were many near misses. Rupture from the injudicious use of Pitocin with maternal death occurred 5 times. This stresses the need for close observation when this drug is used. It is not innocuous when used carelessly, it is lethal. Any woman who complains of a severe pain with cessation of labour following the injection of Pitocin has a ruptured uterus until proven otherwise. This requires immediate laparotomy.

Post-partum Haemorrhage was responsible for 3 more maternal deaths, again with many near misses. Adequate blood replacement has improved this situation tremendously. Conservative obstetrics will prevent the uterine and vaginal lacerations which so commonly cause the majority of post-partum bleeding. Adequate lighting, a proper table for posturing the patient, with instruments to visualize the vaginal lacerations will again further prevent mortality. Inspection of the vaginal tract with visualization of the complete circumference of the cervix is a must after every forceps delivery.

An atonic uterus, or retained pieces of placental tissue, are a minor cause of post-partum bleeding. Adequate sedation, fluids, and close observation to prevent exhaustion of the patient will prevent uterine atony. One should anticipate atony and be prepared with cross-matched blood for replacement if necessary, in such cases as twins, hydromnios and prolonged labour. Once atony has occurred prompt treatment with I. V. Pitocin drip will cut down the amount of blood loss. There is little effect from uterine packing and this may be dangerous in that delay in appropriate treatment can occur. A true atony which will not respond to Pitocin drip is rare but when it occurs will usually require a hysterectomy.

Retained Placenta should receive immediate attention if bleeding is a problem. If not, one should wait for twenty minutes and then if separation has not taken place, manual removal is advised with anaesthetic coverage.

Delayed haemorrhage with portions of placental tissue can be quite severe. One such death has occurred. In these instances I think the placental tissue is an incidental finding, with the true bleeding caused by infection of the decidual site with failure of this area to involute. In most instances the material obtained at D&C is decidual with little or no placental tissue. A D&C at this time is technically a very dangerous procedure.

Foetal Distress is difficult to define and to predict. In a large proportion of cases there is prolapse of the cord but in many others no obvious cause can be found. Prolapsed cord can be prevented again by a high index of suspicion. Any woman with prematurely ruptured membranes, when the physician is not sure if engagement of the presenting part has occurred, should be admitted to hospital immediately to rule out this complication. Artificial rupture of membranes with an unengaged vertex is an exceedingly dangerous procedure. Once prolapse has occurred the patient should be placed in deep Trendelburg or knee-chest position, and given oxygen. If possible a hand is placed in the vagina to keep the presenting part away from the cord, while preparations are made for immediate delivery. I do not feel that cord

replacement is of value: it may be tried but usually wastes time, and places the uterus in spasm, further increasing the anoxia of the baby. If not deliverable immediately by vagina, then a Caesarian Section should be done stat.

Distress, other than prolapse of the cord, is often difficult to define. If close observation of the foetal heart is carried out abnormal speeding or slowing of the foetal heart is a good indication - add to this meconium staining, and delivery is a must. Again if the cervix, position and pelvis are not favourable for an immediate delivery a Caesarian Section is necessary. After such an operation one feels very frustrated by the fact that no obvious cause for the distress was found - in fact a needless operation may have been performed. With the above findings and until we have more accurate methods of foetal assessment this must follow.

Toxaemia is still a big source of maternal and perinatal mortality. Eclampsia is a preventable disease. When it occurs it is unexpected and in a woman who has received poor prenatal care. There is a great hodge-podge of treatment for eclampsia. This is again confusing, particularly to the nursing staff in an Obstetrical Unit whose care will often dictate the outcome of the disease. Early hospital admission for all toxic patients, adequate sedation with Sodium Luminal and Magnesium Sulfate, diuretics, with close clinical observation will lower the number of eclamptics.

In the treatment of toxaemia a standard regime should be established by the staff utilising the Obstetrical Unit, this standard to be well documented, with close observation and recording of clinical material. The newer antihypertensive drugs are disappointing in our hands, in fact some feel they are dangerous because the real state of the patient is masked. Toxaemia that persists beyond two weeks will usually cause permanent damage to the mother. It is felt safer for both mother and child, even though the latter is premature, to induce labour after two weeks of persistent toxaemia. The severe toxaemia on admission should be controlled for 24 hours before definite treatment is instituted. Those who quickly improve and clear, all well and good - spontaneous labour. Those who remain stationary induction of labour after 24 hours. If a multip and the presenting part is engaged, rupture of the membranes with Pitocin - a primip is unlikely to fit into this category - and might require a Caesar. In a few instances, the patient may deteriorate rapidly and will need surgical interference earlier than 24 hours. Patients who are admitted in labour and who are toxic, require special care. There is often reluctance to administer sedation to these people for fear that labour will be stopped or the baby will asphyxiate. Neither of these fears is valid. To withhold adequate control will result in a high proportion of eclampsia on the delivery table.

Once eclampsia has occurred conservative measures are advised. The patient should be controlled for at least 24 hours. Labour is usually initiated by the first convulsion. Foetal death may occur during this period - if so the toxic state improves. When the patient is controlled, rupture of the membranes and induction should be carried out.

Traumatic procedures such as manual dilatation of the cervix, excessive dosages of Pitocin, forceps either mid or through a partly dilated cervix are condemned because they usually precipitate convulsions, or cause sufficient damage to the genital tract that a mortality may result from haemorrhage.

Infection. The last segment is that of infection. We are not so concerned with the post-partum infections which in their day were the greatest cause of maternal mortality. With adequate and appropriate antibiotics these diseases are effectively controlled.

Septic Shock or Endotoxic Shock is a relatively new disease which may be seen in the pregnant woman. Indeed it is most commonly seen in this group. It may be in association with a septic abortion, urinary tract infection with pregnancy, and infection due to premature rupture of the membranes. The common organisms are *E. Coli* and *B. Welchi*: and the patient usually dies of tubular necrosis.

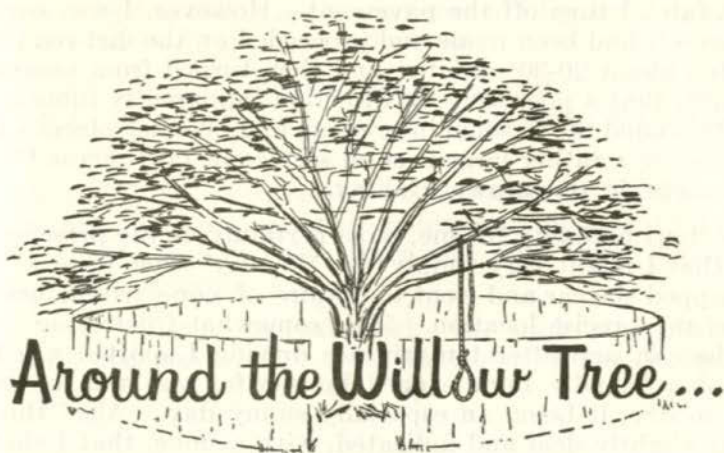
These patients are admitted in shock. They are cold, the temperature is subnormal, pulse rapid, haemogram usually normal. They produce little or no urine. The treatment involves first, cultures of the urine, vagina and cervix, and a blood culture to establish the organism. An I. V. is started with levophed or aramine to re-establish the circulation. Care must be taken not to overhydrate the patient. Blood is used only to replace estimated loss. Large dosage of Penicillin and/or Chloramphenicol is used initially until the definite causative organism is identified. Solucortef has been used by some, others feel it is of no value - if used, large doses in the vicinity of 200-500 mgm may be necessary.

As to the treatment of the main condition, I prefer to be conservative. If an abortion, she is examined and tissue if present is removed from the cervix and lower segment to allow drainage. Nothing further is done until the infection is controlled and urinary function is established. There are men who feel that a more radical attack with a D&C is preferred. This I think is dangerous.

If the condition is due to premature rupture of the membranes, again I prefer to be conservative. However there are those who feel that the uterus should be emptied. Pitocin is used. If ineffectual within 24 hours then a Caesar should be done.

Once infection is controlled the main problem is the treatment of anuria. This requires scrupulous fluid control to prevent pulmonary oedema and close electrolytic control to prevent potassium intoxication. The latter usually requires the use of exchange resins or dialysis on the kidney. These two measures are highly specialised, and usually require referral to specific treatment units.





PRELUDE TO AN ANGLO-IRISH HUNTING TRIP IN NOVA SCOTIA

ANTHONY F. C. SCOTT, M.D.

Yarmouth, N. S.

My English friend prescribed for me a good rest in the form of a "Last of the Season" deer hunting trip to his camp somewhere inside Kemptville. (I later felt that Outer-Mongolia might have been a better locale.)

I was unable to join my English friend on the planned night of departure, because of practice commitments, so he gave me, over the telephone, perhaps too precise and clear instructions as to the location of his camp, or rather, as far as an "Iron Pipe Gate" entrance to camp; here we were to meet at approximately 11.00 a.m. the next day. He reminded me of the usefulness of bringing along a "quart". (This latter in general North American terms really means a bottle of rum containing $4/5$ quart or 32 fluid ounces). My English friend has been 15 years in Canada - myself $3\frac{1}{2}$ yrs.

My practice commitments came to a head, or more correctly to two *breech Twins* between 4.30-6.30 a.m. to complete the confinement fully. As I was to depart for the hunting trip this same morning, I hastened from the hospital to my office to leave out some promised prescriptions and a brief note for my secretary. I also made up a compact first aid pack to put in my grip for the hunting trip, as the clock now showed near 7.00 a.m.

I decided to visit my regular barber for a much needed haircut, but declined the luxury of an open razor shave because I was going to "rough it" for a couple of days.

It would be near 8.00 a.m. when I arrived home to find the household activities well under way and my oldest son on his way to the school bus.

After breakfast I retired to bed for a short *one hour* sleep, but this hour was extended to something like three, despite vaguely remembered reminders of the time being repeated by my wife, at seemingly incessant intervals. These reminders were more forcibly mimicked by our three year old son, by frequent skull tapplings (mine) using his latest "sawn off shot gun".

I have no idea of the eventual time of departure for Kempt or Kemptville, but I managed the first leg of the journey without diversionary difficulties. So far the jotted down instructions from my English friend seemed very factual

until the first fateful turn off the pavement - However, I was confident that the correct turn-off had been made and proceeded on the dirt road with assurance that lasted about 20-30 minutes, and then turned from assurance to the inevitable doubt, that a poor sense of direction (apparently inborn) has in the past frequently landed me in some interesting and peculiar places - I recall two years ago attending a rather large funeral service in Portuguese Cove, instead of an appointment in downtown Halifax.

One important necessity for me, most certainly, is the presence of my fellow humans, that I might very simply 'ask the way' when disorientated in my travels. I stopped the car and went to inquire of non-existent occupants of a derelict house, my precise location. This somewhat frustrating situation led me to turn the car, and after ten minutes driving I spotted a fellow human in the form of a friendly middle aged housewife, who was hanging up her clothes wash to dry, it being an especially sunny day. Alas! this good lady was more than slightly deaf and indicated, with a smile, that I should ask her son who stood six foot something plus, in the doorway of their home.

Now this young man looked at my jotted instructions and crude map of "Kempton Corner", as per my English friend's detailed directive; and he, somewhat puzzled by my "map" informed me of the existence of a Kempton at every compass point. At least five were mentioned. He then said that it would be better to ask his father, who was somewhere down the road, but I might find difficulty in locating him. I dismissed this as impractical.

I hurried away waving 'thanks' to these people but was pleased to observe somebody enjoying himself, a large black horse, four legs in the air, rolling on his back. Perhaps the poor creature was really tormented by "the itch" and trying to scratch it!

Not being daunted, a firm decision to return to the aforementioned turn-off the pavement and re-start with a more concentrated approach seemed sensible.

Up to the time of writing this narrative, or Anglo-Irish tale, I have not succeeded in finding the pavement and there is so much mud specking on my windshield, I have had to waste a bottle of throat gargle to wash it clean (my windshield washer reservoir never has water when I want it).

By now also, I believe I have visited at least four or five Kemptons and could certainly have driven to Kentville, Kings Co. and back in so much time on the road. Also, I have found, at least three disused schoolhouses. My jottings and "map" include the importance of my reaching "an old schoolhouse". I feel by this time, that my English friend was really thinking of "old school ties", but to be fair to his clear instructions I'm sure of having located his "old schoolhouse", namely a heap of rubble and timber scarcely visible from the roadside, without stopping the car and having a vivid and re-creative imagination.

A very sad fact at this time is that while recording this confusion I felt that a celebration at having found so many Kemptons must be toasted out of that "quart" which now looks more like a $\frac{1}{2}$ pint - I just hope that the area is not teeming with 'Mounties' searching for a missing M.D.

Where I am writing this is a pleasant sort of "lay by", to use an English highway term for an Irish cut-out in the road.

I feel it is time to re-concentrate and get to that iron pipe gate - Oh dear, what would constitute an iron pipe gate, what diameter of piping? I can still foresee troubles ahead.

Before closing, I must record a short account of the 'Wild Life' seen so far. Just here there are numerous squirrels gadding about and if I don't soon succeed in finding that 'iron pipe gate', there may well be no "quart" and pink elephants among the squirrels.

Finally, I am beginning to realize why the Irish 'struggled for freedom' from the English, and also wonder - was that black horse happy on his back, or really tormented by the "Itch. . . .?"

NOTICE TO MEMBERS

At the meeting of the Executive Committee December 1st., 1962 the following resolution was carried:

"THAT notice of motion be given to the Annual Meeting of The Medical Society of Nova Scotia that practitioners resident in the province of Nova Scotia be required to be members of The Medical Society of Nova Scotia before they can be participating physicians in Maritime Medical Care, Incorporated."

PARA-MEDICAL ORGANIZATIONS (6)

THE RED CROSS BLOOD TRANSFUSION SERVICE

C. L. ILLSLEY*

Halifax, N. S.

All Red Cross workers were greatly stimulated by the resolution of The Medical Society of Nova Scotia endorsing the Free Blood Transfusion Service of the Society. Especially encouraged were those directly concerned with the oft-time onerous task of recruiting blood donors. On the other hand there was general dismay over an article in MacLean's Magazine which questioned the necessity of a modern transfusion service. Two points of view, and one much more publicized than the other. So the resolution was heartening, serving as a testimonial to the efficacy of the program.

The trouble with resolutions, though, is that despite the enthusiasm which generates them, they go into a book where they may lie forgotten. Infinitely more effective is the active support of doctors in the organization and conduct of clinics. In a few instances doctors are chairmen of the Red Cross blood donor committees, and thus are directly involved in the collecting of blood. Other well known Nova Scotia physicians take only "emergency calls" on clinic days and make it a point to appear at the clinics and commend those who are volunteering their blood. There can be no under-estimating the importance of support by the medical profession in organizing a successful clinic. The primary reason that a volunteer blood donor gives his time and his blood is the conviction that he is doing something for his fellow man, which comes as close as a human being can to laying down his life for his friend. To many people, giving blood the first time entails a great deal of heart searching, and the approbation of the doctor cannot be over-estimated. The only real reward that any blood donor asks is the knowledge that his blood is needed, and the words "Don't forget the next Red Cross Blood Donor Clinic" may be all that is required to tip the balance.

While Red Cross realizes that there is no place in medicine for dramatics (in spite of some of the very popular TV programs) there *is* a place for public medical support of this program. Every community has its Medical Society, and a letter to the editor of the local paper or a word on radio or television from a representative of the Medical Society, urging support of the clinic, goes a long way towards ensuring its success. Usually, only the doctor knows of the more dramatic cases where blood, freely given, was actually instrumental in saving a life; and occasional stories of these cases, when conditions permit, do much to inspire new and continuing blood donors. It is so easy to take things for granted: antibiotics, serums, drugs, and blood. These aids to healing are nearly always available in the modern hospital, but they would not be at hand if it were not for the persistence of many dedicated people, who, consciously or unconsciously, believe that they are their brothers' keepers. This applies particularly to the Red Cross Blood Transfusion Service.

*Commissioner of The Canadian Red Cross Society, Nova Scotia Division.

In the past 14 years, more than 125,000 people in Nova Scotia have received blood or blood derivatives, exceeding one out of every seven people living in this province. In 1963, to keep the hospitals in Nova Scotia and Prince Edward Island supplied with almost 1,000 bottles of blood a week means an intensive program of donor recruitment. It is here that the doctor can help by making a personal appearance at the clinic, or better still, by being a donor himself. Through The Medical Society perhaps some story of the systematic life-saving service can be told, bearing in mind that what is commonplace to the doctor is thrilling to the layman, and a compelling reason to give blood.

The job of collecting over 37,000 bottles of blood a year leaves no time for vacations, in fact the holiday season is often the busiest in the Blood Transfusion Service, because of holiday accidents. On the blood transfusion side of the picture, the Canadian Red Cross depot at Halifax, faces increasing requests for blood fractions. Fresh frozen plasma, serum albumin, fibrinogen, gamma globulin, are in growing demand. The Red Cross maternal Rh investigation service, which has resulted in the saving of many mothers and newborn infants, results in almost 12,000 free investigations a year.

The Free Blood Transfusion Service of the Canadian Red Cross Society is cited with the free service of the Dutch Red Cross as the two most effective Blood Transfusion Services in the world today. Strangely enough, the American Red Cross Blood Transfusion Service is only a partial service and blood is not free in most hospitals. Through an arrangement with the American Red Cross, however, Canadians who are hospitalized in the United States may have any blood required for them replaced free of charge as a reciprocal act, because American citizens who are hospitalized in Canada receive blood free through our system. From time to time, information regarding this is sent to all doctors in the province, and a pamphlet *Blood Replacement in the U.S.A.* explains exactly how this operates and is free on request. There is no red tape, a letter giving simple information is all that is required. In 1962, fourteen Nova Scotia patients, hospitalized in the United States, had blood replaced, cancelling bills for blood totalling many thousands of dollars. This service is diminishing as our Nova Scotia hospitals increase the services they are able to offer in specialized surgery and treatment. This extension of service, soon to include open-heart surgery, will mean even greater demands for blood.

The Canadian Red Cross organization, the donors, the doctors, the hospitals and the Government, working together, are necessary to provide the efficient and ample supply of blood and blood derivatives required to meet ever growing demands.



OBSERVATIONS ON EXCESS MORTALITY ASSOCIATED WITH EPIDEMIC INFLUENZA*

Two epidemics of Asian influenza since 1957 have resulted in 86,000 excess deaths. High-risk groups are those 65 years of age and over, persons with certain chronic diseases, and pregnant women. Immunization is suggested for these groups.

One of the classic epidemiologic descriptions frequently applied to influenza is embodied in the phrase "high morbidity, low mortality." Such a description, however, tends to lose sight of the fact that morbidity in epidemic influenza may be so high that even the relatively low associated mortality may itself reach grave proportions.

Two epidemics of Asian strain influenza have occurred in the United States since the identification of this antigenic variant in May, 1957. The first occurred in two distinct waves from September through December, 1957, and from January through March, 1958; a total of almost 40,000 excess deaths was recorded during the first wave and of 20,000 during the second wave. During the first three months of 1960 a second major epidemic occurred, resulting in approximately 27,000 excess deaths. A total of 86,000 deaths in excess of the expected number thus occurred in the United States as a result of Asian influenza epidemics in the three-year period.

It is important to determine in how many of the 86,000 excess deaths influenza was merely a terminal event in an already severely debilitated patient, and in how many influenza and its accompanying pneumonia may have killed a person in active, productive life, albeit in an older age group, or with definite but compensated chronic disease.

The best measure of the total impact of an epidemic is provided by the total excess mortality. The following table shows the estimated excess, and that the bulk of it was in deaths due to pneumonia-influenza and cardiovascular-renal causes:

Cause and Period	Expected	Observed	Excess
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Oct.-Dec., 1957			
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Total Deaths	408,320	447,620	39,300
Pneumonia-influenza	12,440	24,540	12,100
Cardiovascular-renal	221,360	240,060	18,700
All other	174,520	183,020	8,500
January-March, 1958			
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Total Deaths	421,020	441,020	20,000
Pneumonia-influenza	16,740	22,740	6,000
Cardiovascular-renal	235,180	248,180	13,000
All other	169,100	170,100	1,000
January-March, 1960			
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Total Deaths	439,100	465,800	26,700
Pneumonia-influenza	18,270	28,870	10,600
Cardiovascular-renal	246,350	258,550	12,200
All other	174,480	178,380	3,900

Theodore C. Eickhoff, M.D.; Ida L. Sherman, M.S., and Robert E. Serfling, Ph.D., *The Journal of The American Medical Association*, June 3, 1961.

*Abstracted by National Tuberculosis Association. Printed through co-operation Nova Scotia Tuberculosis Association.

When excess mortality data are analyzed by age, it is apparent that the heaviest toll is paid by the population over 65 years. Although during the first epidemic period only slightly over one half of the excess deaths occurred in persons 65 years and older, this proportion increased in succeeding epidemics; in the 1960 epidemic, 80 per cent of the excess deaths occurred among individuals in this age group.

It need not seem paradoxical that an epidemic of influenza should cause a distinct wave of excess deaths said to be due to cardiovascular-renal disease, or to some condition other than influenza or pneumonia. These "epidemics" of chronic disease are because deaths in the United States, as well as in most other countries, are tabulated by "primary" cause, that is, the cause that initiated the train of circumstances which eventually resulted in death.

LIVES CUT SHORT

Analysis of the excess mortality data has suggested that most victims of an influenza epidemic are those who might have lived considerably longer had influenza not claimed them, rather than severely debilitated patients in whom influenza is simply the terminal event.

Excess influenza-associated deaths due to asthma, diseases of the respiratory system other than influenza and pneumonia, and pulmonary tuberculosis probably occur primarily in patients whose pulmonary function is significantly compromised. The lives of diabetics are jeopardized by influenza not only by their increased risk of bacterial superinfection and increased incidence of cardiovascular-renal disease, but also by the increased risk of acidosis and coma during an acute infection.

An increased risk of influenza death in association with certain conditions is better demonstrated by clinical studies than by analysis of reported mortality data. The association of rheumatic heart disease and influenza-associated death, particularly rheumatic mitral stenosis and fatal influenza-virus pneumonia, for example, is well documented in the literature.

A relationship between influenza-associated deaths and pregnancy is a common clinical impression. Several studies carried out during the 1957 pandemic have indicated that pregnant women are definitely at greater risk of death from influenza than non-pregnant women of the same age group.

VACCINATION FOR HIGH-RISK GROUPS

There is a significant body of evidence that the lethal potential of epidemic influenza is still present. Rather than recurring in a mild form, as might have been anticipated as the over-all immunity of the population increased, the most recent outbreak in 1960 resulted in excess mortality which exceeded that of the second wave of the 1957-1958 epidemic and approached that of the first wave.

This analysis serves to underscore the fact that certain individuals are at increased risk of death from influenza. Three broad groups can be identified—persons over 65, persons with certain associated chronic diseases, and pregnant women. The chronic illnesses of significance include cardiovascular-renal disease, particularly rheumatic heart disease; chronic pulmonary disease, e.g., bronchial asthma and pulmonary tuberculosis; and metabolic diseases such as diabetes mellitus.

It would seem entirely reasonable to believe that the prevention of influenza in these high-risk groups would result in a corresponding reduction of excess influenza-associated mortality. Annual immunization of such high-risk groups against influenza might well be highly effective in reducing the disquieting toll of excess deaths periodically exacted by epidemic influenza.

AN APPRECIATION

HUGH R. PEEL, M.B., Ch.B.

In the recent death of Dr. Hugh R. Peel, "Hughie" to his friends, Truro and Colchester County have lost one of their most distinguished practitioners and notable characters. Although we had known for some time that the end was near, it was a shock to learn that Hugh had finally gone. He bore his last illness with courage and patience, even though he knew from the first that it was a losing battle.

Born in 1905 in Truro, he grew up here, and knew and was a friend to everyone in town. He decided early in life on Medicine as his career, and with that end in view attended Acadia, Whittier College and Edinburgh University where he graduated in 1931. His parents were not wealthy and his descriptions of his trials and trips extending from California to Scotland would make a book in themselves. It is possible that the hardships of these days led to the comparatively early onset of his final illness. During his days at Edinburgh he gained and held the friendship of many of the leading physicians of today in Great Britain.

He began his practice in Truro during depression days but from the first was busy and active and soon developed a very large following. He was first and last a family physician in the best sense of the word, doing everything for everyone to the full extent of his capacity. He was very fond of children, and knew all his patients by their first names. His special interests appeared to be in obstetrics and gynaecology, but he loved all the branches of medicine. He was a pioneer in the use of ethyl chloride and intravenous pentothal in this area. He brought the first pentothal to Truro in 1934 on his return from Scotland. He took frequent trips back to his home base in Scotland and also to California, where his family lived, and generally returned with some new advance in medicine or surgery.

As a sportsman Hugh Peel was expert. He loved trout fishing and duck and partridge shooting. Few could surpass him in his ability to lure a trout from a pool or discern a partridge in a tree. He had a large library of classical records and a very good collection of books. His hobby was the collection of early writings about Nova Scotia.

In the business world, he headed several of the county's leading industries. His restless and energetic nature demanded activity whether in business, sport or practise. He was a perfectionist in dress.

He was very fond of his home. In 1932 he married Florence MacMullin, Dal. '26, and the home they built on Highland Drive in Truro has been a haven of hospitality down through the years. Their son, David, is a Dalhousie graduate in Arts and Law and is now in the diplomatic service in Ankara, Turkey. Their daughter Penny is a graduate of Mount Allison in Arts.

Hugh Peel was essentially a family doctor and general practitioner in the best sense of the terms. His loyalty to his patients and his willingness to go to them day or night was proverbial. To his colleagues he was loyal, too, and always available for help or consultation. His happy witticisms and stories cheered up many a sick room or medical gathering, but his lightheartedness never prevented him from taking a stern action in the face of an emergency. He will be sadly missed.

R. F. ROSS, M.D.

AN APPRECIATION

Owen B. Keddy, M.D., C.M.

One of the sayings of the late Dr. Owen B. Keddy was "learn to grow old gracefully", and that he did. He was not a complainer and went to his rest peacefully during the last week in 1962 and was buried in Windsor on January 1, 1963.

He was born in Milton, Queens County, a son of William Keddy. He taught school for awhile and later went to Acadia and McGill Universities. From the latter he obtained his degree of M.D., C.M. He practiced in Liverpool for a year and was then enticed to Windsor by the late Dr. J. B. Black. Dr. Keddy was not in Windsor long before he had a very large practice and became a famous surgeon. At that time Payzant Memorial Hospital was in its infancy and through his endeavours the hospital came to be well recognized throughout the province. It is true that he served his internship during the horse and buggy era, but he lived to see the end of it and to graduate into an easier way of life. He kept himself up with the times by attending yearly post graduate courses in the United States.

Good looking, an immaculate dresser, he was a man of quiet disposition, never seeking the ego. His bedside manner was superb - gentle and sympathetic, and he was on call twenty-four hours a day and nobody was turned away. His life was a model one to many a youth. Some of his interests and accomplishments were - Mayor of Windsor; President of Windsor Rotary Club; Master Mason; Member of Choir, Windsor Baptist Church; Honorary Life Member, Nova Scotia Medical Society; A governor of Acadia University.

He was a very good golf player, curler, an excellent salmon fisherman and duck hunter, and a shrewd card player. A truly great citizen, a trusted friend, a capable surgeon, and one who loved to recite Rudyard Kipling's "IF" -

"If you can keep your head when all about you
Are losing theirs and blaming it on you;

* * * * *

If you can fill the unforgiving minute
With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it
And - which is more - you'll be a Man, my son!

He surely lived this.

Dr. Keddy is survived by his wife, in Windsor; his only son, Dr. George W. Keddy, Orthopedic Surgeon, Saint John, N. B., and five grandchildren.

G. K. Smith, M. D.



PERSONAL INTEREST NOTES

The N. S. Medical Bulletin is now indexed by the INDEX MEDICUS and Institute of Scientific Information, Academy of Sciences, Moscow.

Isn't it too bad that no news is forthcoming this month from the Branch Medical Societies of so large a part of Nova Scotia? Only Antigonish-Guysborough, Cumberland, Lunenburg, Queens and Western Counties reported this month.

In Halifax City our confrères "made news" in various ways. Dr. W. A. Condy, General Practitioner, is the newly elected Chairman of the Halifax Board of School Commissioners. He was elected by acclamation to succeed Mrs. Abbie Lane.

Dr. Paul Fleming, Anaesthetist at the Victoria General Hospital, was appointed Potentate of the Shriners on Jan. 19th and also as a delegate to the Imperial Conference in Chicago, next summer. This Conference will be attended by 800 Shriners from North America who will plan for expansion of the 17 hospitals supported by them for the treatment of crippled children.

Dr. J. E. Harris Miller has retired to Supplementary Reserve after continuous military service since 1935. He has been Assistant Director of Medical Services, (A.D.M.S.) Eastern Command and C.O. Command Medical Advisory Staff and Senior Reserve Medical Officer in Eastern Canada.

Dr. Gabrielle Nigrin, who was Chief Resident and later Research Fellow, working with Dr. W. A. Cochrane at the Childrens' Hospital in the field of Cystic Fibrosis, left Dec. 29th for Charlottesville, Virginia, where he has accepted a teaching position on the medical faculty of the University of Virginia. Prior to his departure, a presentation was made to him by the N. S. Cystic Fibrosis Society.

Dr. W. A. Cochrane, Professor of Paediatrics at Dalhousie and Medical Director of the N. S. Cystic Fibrosis Society, gave a paper at the annual meeting of the Royal College of Physicians and Surgeons of Canada, held recently in Edmonton. The paper was the result of observations and investigation of 51 cases during the last three years carried out by him and Dr. Nigrin and Dr. Garcia of the Department of Paediatrics and the Childrens' Hospital. In it he observed that Cystic Fibrosis of the Pancreas was likely the most common chronic lung disease of children in Canada at the present time. One case is being diagnosed at the Childrens' Hospital every 4-6 weeks. It is felt that earlier diagnosis could be made if physicians were aware of the magnitude of the problem and consider this diagnosis in patients with symptoms of recurrent chest disease, gastro-intestinal problems or failure to thrive. "Although no known cure is available for this disease at present, early recognition and intensive treatment may allow the infant or child, and the parents to live relatively normal lives for many years".

LOCAL CHAPTER OF MUSCULAR DYSTROPHY ASSOCIATION OF CANADA

The Halifax Chapter of the Muscular Dystrophy Association was formed recently in Halifax. It hopes to serve the Province as a preliminary step in establishing other chapters in Nova Scotia. Dr. A. M. Sinclair has asked the Bulletin to urge that anyone knowing the names of any person known to be affected by this disease will please forward the information to the chapter secretary, Mrs. D. M. Jewers, Erin Drive, Westphal, Dartmouth, N. S. It is hoped that this information will help in determining the total number of persons affected by this disease in the Province as well as allowing the local chapter to contact these patients with regard to help which may be obtained through the Muscular Dystrophy Association of Canada.

Dr. Norman Glen, Amherst, spoke to the Rotary Club of Amherst recently, giving an account of his trip to England in November to attend the World International Conference on Family Doctor Care in London. Dr. Glen was appointed by the College of General Practitioners of Canada to represent them. He presented a paper on General Practice in Canada and the relationship between the Canadian family doctor and hospital services. The conference was attended by 200 doctors from 24 countries, outside and inside the Iron Curtain.

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Dr. A. A. Giffin on Jan. 17th, as President of the Kentville Blanchard-Fraser Memorial Hospital Association, signed the contract which will change the present 64 bed hospital to a 138 bed regional hospital with increased and expanded facilities, costing approximately \$1,750,000.

Dr. T. E. Kirk, medical superintendent of Camp Hill Hospital, has been invited to be a member of a panel to discuss the subject of personnel management in hospital at the meeting of the American College of Hospital Administrators to take place in Chicago, Jan 31-Feb. 2. He will also act as examiner of hospital administrators who are seeking membership in the College.

VICTORIA GENERAL HOSPITAL NOTES

A room on the Eighth Floor of the Victoria General Hospital has now been designated as a Respiratory Unit for Intensive Care of Acute Respiratory Disease. It will be under the direction of Dr. I. E. Purkis and Dr. Leon Cudkowicz. This means that specialized care is quickly available for patients. Respirators with or without cardiac monitors or apparatus for hypothermia and also for the determination of blood gases will be right at hand.

The doctor referring a patient to the Respiratory Unit remains in charge but the day to day ordering is done by those directing the Unit in consultation with the referring physician.

WESTERN COUNTIES MEDICAL SOCIETY

The Committee Chairmen have held their second meeting for the discussion of the program for the annual meeting to be held at Braemar in July, 1963.

General Chairman: Dr. D. F. Macdonald (Pres. Medical Society of N. S.); Assistant Chairman: Dr. G. D. Belliveau; Program Entertainment: Dr. James Balmanno; Registration: Dr. G. M. Macdonald; Housing & Accommodations: Dr. R. B. Auld; Program for Ladies: Mrs. D. F. Macdonald, Dr. Irene Cassells; Publicity: Dr. G. D. Belliveau; Exhibitors: Dr. W. F. Mason.

The Chairmen of these Committees would appreciate any comments or suggestions from any member of The Medical Society of N. S. The program for the Annual Meeting is progressing satisfactorily.

Dr. W. C. O'Brien and Mrs. O'Brien have returned to their former residence in Wedgeport, having completed their transfer at the last of December. Dr. O'Brien will continue his medical practice in Yarmouth in the Medical Arts Bldg. Dr. O'Brien, first came to Wedgeport 40 years ago. During World War 2 he moved to Yarmouth. Dr. Milton O'Brien, his son, has now taken over that property. He and his family arrived before Christmas but Dr. O'Brien will continue special studies in Halifax until March.

N. S. BRANCH OF CANADIAN ANAESTHETIST SOCIETY

The monthly meeting was held on Jan. 21st at the Childrens' Hospital with 18 members present. Tentative plans for the Regional Meeting on April 18th and 19th in Moncton foreshadow an interesting meeting with Dr. R. A. Gordon, Toronto and Dr. J. A. Noble as guest speakers and participation from Newfoundland members promised. Dr. Enid Johnson MacLeod was congratulated. She was honoured along with Dr. Harold Griffiths of Montreal at a dinner held on Jan. 23rd at Redpath Hall, McGill University. This date was exactly 21 years since Dr. Griffiths and she first used CURARE as a muscle relaxant in Clinical Anaesthesia, (Jan. 23, 1942 at the Homeopathic Hospital, now Queen Elizabeth Hospital, Montreal. No comment is necessary on the tremendous impact on surgical anaesthesia this application has made all over the world.

BIRTHS

To Dr. and Mrs. Leith Douglas, a daughter, Ellen Rosemary, at the Grace Maternity Hospital, Jan. 17, 1963.

To Dr. and Mrs. Donald Higgins (née Sheila McLaughlin), a daughter, at the Halifax Infirmary, Jan. 3, 1963. A sister for Donna.

To Dr. and Mrs. David Johnson, a son at the Halifax Infirmary, on Dec. 30, 1962.

To Dr. and Mrs. Bruce Keddy, a daughter, Shelagh Elizabeth, at Fisherman's Hospital, Lunenburg, on Dec. 29, 1962. A sister for Dale, Martha, Heather Anne, and Jill.

To Dr. and Mrs. David Keddy, Mahone Bay, twin daughters, Susan and Sharon, at the Fisherman's Memorial Hospital, Lunenburg on Jan. 14, 1963. Sisters for Stephen.

To Dr. and Mrs. Ross MacInnis (née Madeleine Anthony), a daughter, at the Grace Maternity Hospital on Jan. 5, 1963. A sister for John, Ann, Kevin and Mary.

To Dr. and Mrs. R. M. Mundle (née Gwenneth Mounteer), a son at the Grace Maternity Hospital on Jan. 12, 1963.

To Dr. and Mrs. Carlyle Phillips (née Virginia Coffin) a son, at the Grace Maternity Hospital on Jan. 19, 1963. A brother for Bringham and Bruce.

To Dr. and Mrs. Arthur Shears (née Dorothy Bulmer) a daughter, at the Grace Maternity Hospital on Jan. 3, 1963. A sister for Barbie, Richard, Lynnell and Leslie Ann.

To Dr. and Mrs. John Sutherland, (née Lillian Thornhill), a son, Peter Michael, at the Grace Maternity Hospital on Jan. 18, 1963. A brother for Faye, Debbie and David.

DEATHS

The Bulletin records with sorrow the death on:

Jan. 12, 1963 at Montreal of *Dr. W. A. Gordon Bauld*, a graduate in Arts of Dalhousie and Medicine McGill (1911). He was renowned in medical circles as the first director of the Cancer Clinic in the Royal Victoria (Maternity), Hospital, Montreal. After serving overseas with the 6th Canadian Field Ambulance in the 1914-18 war, he took post graduate training in Johns Hopkins and the Radiumhemmet in Stockholm, Sweden, before his appointment to the staffs of hospitals in Montreal and McGill University. He was born in Halifax in 1884.

Dec. 29, 1963, at Windsor, N. S. of *Dr. O. B. Keddy*, a graduate in Arts of Acadia and Medicine, McGill (1906). He had practised in Windsor since 1908, and was three times elected Mayor of the town, the third term lasting ten years. In 1917, he was a member of the team of doctors who came to work in Halifax following the Explosion. He was charter member of Windsor's Rotary Club, and the Fund raised by auction held by the Club in 1953 to raise money for the Crippled Children Fund, was dedicated as "Dr. Keddy Birthday Appeal". He was 84 years old.

Jan. 6, 1963 at Boston, Mass., of *Dr. Frank R. Shlossberg*, a native of Sydney Mines, and a graduate in Medicine of Dalhousie, (1936). He was an ear, eye, nose and throat specialist in Haverhill for more than 21 years. He developed a technique for giving eye tests to pre-school children which will help in early diagnosis. Research articles by him have appeared in various journals. To his brother, *Dr. Rubin Shlossberg*, Halifax we extend our sympathy.

Dec. 31, 1962, at Camp Hill Hospital, Halifax, of *Dr. Robert Hiram Sutherland*, a native of River John, Pictou Co., aged 80 years. He graduated in Medicine at McGill (1905). He went overseas with the First Canadian Contingent in the First World War and was in charge of a military hospital in England. In World War 2 he was in charge of a Military Hospital, at Sydney. He was Medical Health Officer for Pictou for many years and for more than 20 years was Coroner for the Western part of Pictou Co. We extend sympathy to his son *Dr. Lorne Sutherland*, St. John's, Newfoundland.

SYMPATHY

We extend sympathy to *Dr. Grace Rice* on the death of her sister. *Dr. Rice*, herself, has been hospitalized with a broken hip.

PRESENTATIONS AT THE VICTORIA GENERAL HOSPITAL WEDNESDAYS, 5-6 P.M.

March 6: Early Symptoms in Psychoses	Dr. Fraser Nicholson
March 13: Hypothermia and Anaesthesia	Dr. A. F. Pasquet
March 20: Some Aspects of Cancer of the Colon	Dr. E. F. Ross

COMING MEETINGS

"A WEEK IN MEDICINE" - Post-Graduate Division of Medicine - Feb. 25-28
The American College of Physicians: Post-graduate Course II.

"Recent Advances in Cardiovascular Disease" at Mount Sinai Hospital,
New York City, March 18-22

Preliminary Announcement: National Health Week: April 1-7.

"To Prevent Is Better Than To Cure". World Health Day, April 7.

Preliminary Announcement: N. S. Branch of the College of General
Practitioners of Canada: Halifax, Saturday, May 4, 1963.

The Faculty of Medicine, Dalhousie University extends an invitation to all doctors to:

DALHOUSIE RESEARCH DAY

March 27, 1963

**AUDITORIUM, NURSES' RESIDENCE
VICTORIA GENERAL HOSPITAL**

Halifax, N. S.

PROGRAM

- 9.00 Opening Remarks.
- 9.10 **Studies on Obesity in Naval Personnel**
Department of Medicine Surg. Capt. R. H. Roberts
- 9.40 **Radiocalcium and Radiosulfur in the Study of Blood Supply of Growing Bones**
Department of Anatomy Dr. F. W. Fyfe
- 10.10 Coffee Break
- 10.30 **Agents Affecting Nucleic Acids in Carcinogenesis**
Department of Biochemistry Dr. J. A. McCarter
- 11.10 **Oligomenorrhoea with or without Hirsutism**
Department of Obstetrics and Gynaecology Dr. S. C. MacLeod
- 11.30 **Diploid Cell Isolation Techniques**
Department of Bacteriology Dr. Juan Embil
- 12.00 **Panel Discussion**
Research Design - How to Plan an Experiment
- 2.00 **Investigation of Antiviral Activity of Human Splenic Extract**
Department of Surgery Professor Ian MacKenzie
- 2.30 **Chromosome Studies**
Departments of Bacteriology and Paediatrics Dr. Maureen Roberts
- 3.00 Coffee Break
- 3.15 **The Effect of Antiemetic Agents**
Department of Anaesthesia Dr. I. E. Purkis
- 3.45 **Educated Volunteers in Psychotherapy**
Department of Psychiatry Dr. S. Hirsch
Dr. A. M. Shane
- 4.15 **The Summing Up** Sir Rudolph Peters, M.D., F.R.S.
- 5.30 Refreshments and Social Hour
The Ashburn Golf Club

Sir Rudolph A. Peters, M.C. (Bar), M.D., F.R.S., for many years Professor of Biochemistry at Oxford, one of the classical contributors to our knowledge of the B-vitamins, the discoverer of British anti-lewisite (B.A.L.) and a major influence in the development of modern medical science is now a Visiting Professor in the Faculty of Medicine at Dalhousie for the months of January - March. This appointment follows his tenure as President of the International Council of Scientific Unions and is financed by the Medical Research Council of Canada. While at Dalhousie many opportunities will be arranged for students, staff and the profession in general to benefit from Sir Rudolph's unparalleled experience and great personal charm.

L.B.M.