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EDITORIAL

It is with sincere regret that we record the death of Doctor Kenneth MacKenzie, one of the most distinguished members of The Medical Society of Nova Scotia, and a former President of The Canadian Medical Association.

Doctor MacKenzie was for many years the leading consulting physician in the Maritimes, and perhaps the first to study and use the electrocardiograph in these parts. He was Professor of Medicine at Dalhousie University and Chief of Medicine at the Victoria General Hospital from 1926 to 1945 and the influence of his teaching has left its mark on the practice of medicine in Nova Scotia, where so many of his former students now follow the art which he taught them.

In his late years when he became less active in clinical work Doctor MacKenzie devoted much time to the history of medicine in this Province and over the years the readers of the Bulletin have been offered many interesting historical studies from his researches, the most recent being published in the last issue of the Bulletin on the Cogswell Library Fund.

Apart from his honours, and his distinguished career in Medicine he was above all the beloved physician and kindly friend and adviser of many people. We shall all be the poorer without him, and to his family who mourn his passing we extend our deep sympathy at this time.

The scientific articles published in this issue of the Bulletin have been contributed by the members of the Staff of the Department of Surgery, Victoria General Hospital, Faculty of Medicine, Dalhousie University.

Oesophageal Hiatus Hernia

Symptomatology and Complications

IAN MACKENZIE, M.B., F.R.C.S.E.

HERNIAE through the oesophageal hiatus of the diaphragm constitute by far the largest proportion of diaphragmatic herniae, forming 70-80% of all such cases.

Two main varieties of this type of hernia have been described: (a) the "sliding" variety, and (b) the para-oesophageal (or para-hiatal) variety. The main anatomical difference between the two groups is the position of the cardia in relation to the fundus of the stomach. In the former, the cardia slides up through the oesophageal hiatus into the posterior mediastinum, followed by the fundus of the stomach to a greater or lesser degree, the acute angle which normally exists between it and the oesophagus opening up and becoming obtuse or disappearing altogether. In the second variety, on the other hand, the oesophago-gastric junction remains in its normal position below the diaphragm, while the fundus herniates upwards into the thoracic cavity, the angle between the oesophagus and the fundus remaining acute. Occasionally a combined type is present, in which the cardiac orifice and the fundus both pass upward into the thorax, but maintain their normal relationship to one another in their new position.

Symptomatology

Generally speaking it may be said that the symptoms associated with diaphragmatic hiatus hernia are very varied and may be rather bizarre; indeed it has been termed, with a considerable amount of truth, the "masquerader of the abdomen." This may not be too surprising when it is recalled that at least twenty-five per cent of cases are associated with one or more other abdominal conditions, but even when the condition is present alone the symptomatology can at times be very puzzling. In one large series of reported cases it was noted that there had been an average of three previous misdiagnoses in each case before the correct diagnosis was established.

A certain proportion of cases are relatively asymptomatic, being discovered in the course of routine investigation for other conditions, but the majority give rise to a variety of symptoms of greater or lesser severity. In general these symptoms tend to fall into two groups, associated with the two main varieties of the hernia under discussion. (a) In "sliding" herniae the oesophago-gastric sphincteric mechanism (however it may be controlled) is incompetent, and as a result regurgitation of gastric contents into the esophagus is usual; (b) in the para-oesophageal variety the sphincter mechanism remains competent; regurgitation is therefore absent, the main symptoms being obstructive in type.

Women are more commonly affected than men and in either sex obesity is frequently quite marked. Usually symptoms begin after the age of forty, but there is a group of cases occurring in infancy and early childhood in whom symptoms of oesophago-gastric reflux occur and which can be shown to be due to the sliding type of hernia. The almost complete absence of cases of oesophageal hiatus hernia between childhood and middle life has yet to be satisfactorily explained.

The common symptoms are:—

Pain or discomfort, which is present in more than three quarters of the cases. It is usually situated high in the epigastrium or retro-sternally, less commonly in one or other hypochondrium or in the chest. It may be referred to the neck or down one or other arm, usually the left and so simulating angina pectoris. It is not uncommonly post-prandial.

Heartburn and **acid regurgitation** are commonly associated with the presence of a sliding hernia while **flatulence** is present in either type.

Vomiting usually indicates some degree of obstruction either in the body of the stomach or at the pylorus in the para-oesophageal type, but can occur in the sliding variety also as an exacerbation of the reflux of gastric contents which is usually present in such cases.

Iron deficiency anaemia is present in a considerable proportion of cases, as high as fifty per cent in some series. This may be the result of one or more large haemorrhages (often evident as haematemeses) or due to long-continued occult bleeding, and can be quite severe, the haemoglobin value being occasionally as low as twenty per cent.

Dysphagia occurs in a proportion of cases as a result of oesophagitis, with or without peptic ulceration of the oesophagus, and is secondary to reflux of acid gastric contents into the oesophagus. In the more severe cases the oesophageal wall is greatly thickened and fibrotic and the size of the lumen is much reduced.

A characteristic feature of these herniae, and especially of the sliding variety, is that the symptoms are frequently aggravated by posture, particularly after eating a meal. Bending forwards, as in tying a shoe-lace, or lying down on the back or right side are the positions which are most liable to cause such aggravation, and relief can frequently be obtained by a change in posture as, for example, by standing or sitting upright, or by lying in bed in a semi-reclining position, supported by pillows.

Diagnosis

The final diagnosis is radiological, the patient being given a barium meal and examined by fluoroscopy in the head down (Trendelenberg) position. Now that this manoeuvre is being used more and more by radiologists as a routine method of examination the number of these herniae being diagnosed has increased markedly. In addition all cases so diagnosed should have the benefit of an oesophagoscopic examination to determine the presence or absence of oesophagitis.

Treatment

This is usually conservative in the first instance, especially in the aged and in those whose symptoms are mild, and consists of dietary measures, (particularly with a view to weight reduction) and postural relief of symptoms. Surgical correction of the hernia however should not be delayed if these measures fail, providing the patient's general condition is satisfactory; surgical intervention is also indicated when complications are present. The usual indications for operation are marked pain or distress other than pain, blood loss (chronic or acute), reflux oesophagitis leading to organic changes in the oesophagus, and obstructive symptoms.

Surgery and Radiation in Oral Cancer

ARTHUR L. MURPHY, M.D.

SURGERY "C", of the Victoria General Hospital, which looks after the head and neck cancer of the Nova Scotia Tumour Clinic, entered this specialized field five years ago with just one preconceived idea: we believed that, subject to many a variation, to exceptions and modifications, carcinoma was best treated by wide surgical excision. But we knew, too, from our own, moderate experience and from the work of others, that in no other area of the body, with the exception of the cervix uteri, does radiotherapy take as important a place in the treatment of carcinoma.

With the promise of an unhappily great mass of patients to study (the head and neck division of the Clinic has proved to be one of the largest on the continent), we determined to meet the problem of therapy with open minds, treating each patient as the human individual he is and deciding from our own experience which treatment would best heal him.

We were guilty, in our early years, of treating patients with hopelessly advanced cancer by radical surgery, patients whose disease we failed to arrest and to whose suffering we added the distress of our unavailing surgery. Awed by these failures we went through a phase where we condemned to palliative therapy cases which in the light of our present understanding might have been cured by courageous surgery.

We are still learning. We hope always to learn. But we believe we can now assess with high accuracy what is best for our patient. We are fortunate to have as constant consultants an expert and co-operative radiotherapy service. No patient is submitted to treatment before being the subject of consultation and thorough, often sharp, clinical argument.

From our experience we have learned that if an oral or antral carcinoma, from lip to pharynx, can be removed widely the chance of cure is far greater than with any other therapy. If it cannot be removed widely, surgery should not be attempted. Radiotherapy may then prove curative; surgery cannot. The practice of reducing the size of an extensive lesion by radiation, and then removing it surgically, has no sound logical or clinical basis. For the surgeon to use radiotherapy as a crutch for his own inadequacy is to abuse a powerful healing agent and further jeopardize the welfare of the patient.

While our average patient accepts willingly, after discussion, the treatment we recommend, an occasional one comes to us with the advice that, if his trouble is cancer, he will have no treatment; that he knows it cannot be cured. Without being blunt or cruel about it, we can usually make him understand that there is perhaps no more horrible way to die than by untreated carcinoma of the mouth, and that even palliative surgery or radiation offers amelioration.

Not uncommon is the protest from a patient that he does not want an operation, sometimes coupled with the request that he be treated by radium. The reasons for this are understandable. Among the elderly, in our province, we still meet a residual fear of the scalpel, dating from pre-Listerian days. This attitude is often augmented by son and daughter who do not want the parent to suffer, and by the referring doctor who fears the surgical risk and looks on radiation as the kindest way for his patient.

This latter was our thinking, too, in the early days of our clinic. But we were soon to learn that, with good post-operative care, particularly regarding nutrition, the operative risk is slight. There is a good physiological reason for this: even the most radical operation about mouth and throat does not impair body function as can a lesser one on thorax or abdomen.

It took us longer to realize that radiation, in all its forms, is usually more distressing and disabling than surgery. The patient with an early epithelioma of the lip is comfortable and eating full meals twenty-four hours after a wedge resection. Subjected to radiation he nurses a painful, swollen lip for a week. Nor can we feel satisfied that the practice of transfixing a malignancy with blunt needles does not encourage embolic spread of cancer cells to the adjacent lymph nodes. Certainly it is opposed by the basic cancer teaching of the danger of even roughly handling such a growth.

Again, the operation for advanced cancer of the antrum which may involve partial resection of superior maxilla, along with zygoma, infraorbital plate and eye, is terribly mutilating. Radiation preserves the eye, but destroys the vision. The necrosis of facial bones from tumor and radiation is scarcely less mutilating than the surgical removal. The pain is incessant, denervating, debilitating, for weeks, or even months. The hope of cure, as compared with surgery, is less.

Such things we have come to know, not alone through scientific study but by simple, humane observation of our patients through these five years. We know that radiation therapy has a great place in the treatment of oral cancer. Its role is usually palliative or supportive. We know that in the properly selected patient, surgery can cure.

Usefulness of the Serum Protein-Bound Iodine in Thyroid Disorders*

A series of case reports has been presented to show that selective use of serum protein-bound iodine determination is a valuable aid in the management of certain thyroid disorders. The test is helpful in identifying thyroid function in patients with nonthyroid hypermetabolism, hypometabolism without myxedema, hyperthyroidism associated with nodular goiter, and following thyroid surgery I^{131} therapy, and administration of anti-thyroid drugs and desiccated thyroid.

The test has definite weaknesses and blind reliance on it is not recommended. Technical difficulties in performing the test and certain specific limitations tend to detract from its value as a routine test of thyroid function. The basal metabolic rate and plasma cholesterol continue to be the primary methods of screening thyroid patients. When these latter tests are inconclusive the serum protein-bound iodine is then indicated. More detailed investigation of thyroid function would call for one or more of the I^{131} studies which are now available.

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*Medical Abstracts, August, 1957.

Clinical Aspects of Malignant Melanoma

A FIVE YEAR REVIEW OF FORTY-SIX CASES

W. K. HOUSE, F.R.C.S. (E), F.R.C.S. (C)

MALIGNANT Melanoma is a rare disease, comprising from 1.5 to 2.9 per cent of all cancers, and from 7 to 10 per cent of neoplastic skin lesions. There are certain aspects of malignant melanoma which tend to make it a fascinating neoplasm. Its very origin is uncertain. Masson agrees that melanoma arise from the epidermal melanoblast or their nevus-cell descendants, but he also attempts to postulate a dual origin and incriminates the nevus-cell of Schwannian origin. Its tendency to spread rapidly and widely give melanoma its most dangerous characteristics.

History of Melanoma

Early in the Nineteenth Century the French Surgeon Dupuytren (I) described and recognized melanosis as an entity. Pemberton in 1858 recommended the removal of the tumour by wide excision together with the fascia deep in it, and was the first to recommend and perform regional lymph gland removal. Skin grafting was to be introduced at a later period. Paget in 1865, Sampson-Handley in 1907, and Pringle in 1908 did a great deal to advance present day knowledge. It was Sampson-Handley who first demonstrated the spread of melanotic cells along the lymphatics and fascial planes, and carried out the first dissection of the pathway of tumour cell spread from the foot through the lymphatics to the inguinal glands. It remained for Pringle (II) to carry this surgical procedure a step further. Familiar with the work of Sampson-Handley, first published in the *Lancet* in 1907, he recommended removal "en bloc" the lesion, skin over lymphatics, the lymphatics and deep fascia together with the regional lymph glands. This operation has not been greatly improved upon to the present time.

Classification of Pigmented Skin Tumours

Allen divides them into two groups—Benign and Malignant.

Benign

1. Junctional
 - A — Early
 - B — Late or Pre-Malignant
2. Compound
3. Intradermal
4. Blue Nevus
5. Juvenile Melanoma

Malignant

1. Melanocarcinoma
 - A — Superficial
 - B — Deep
2. Malignant Blue Nevus

The Junctional Nevus has little or no potentiality toward malignancy change until puberty, and then only a few become malignant. Those on the palms, soles of the feet and on the genitalia should be removed prophylactically. Size is no index of activity. Ulceration is a grave sign.

Cunningham's Criteria for surgical removal and histological examination of pigmented nevi:

- All on palms, soles and genitalia
- All with ulceration
- All subject to trauma
- Those with irregular borders and satellites
- Suspicious lesions in children before puberty
- Any subject to irritation in early pregnancy.

It is the junctional variety of Nevus which concerns us most. In the basal layer of the epidermis the nevus cells are found in a state of uneasy equilibrium and cause this type to be so dangerous and to call for early and radical removal. Junctional nevi may be found on the skin of any part of the body, but as stressed by Sir Stanford Cade and others, nevi on the palms, soles of the feet and genitalia are always junctional in character; must not be treated by meddlesome surgery, cauterization, or fulguration; but by adequate excision before puberty.

Early in 1953 the diagnosis and treatment of malignant melanoma came under the direction of a small group of surgeons attached to the Nova Scotia Tumour Clinic. This is the source from which we have collected this series of forty-six cases now under review. The pessimism which some, if not all of us, entertained at first concerning anything really worthwhile in the way of treatment, except perhaps local removal, has now been largely dissipated. The seriousness of the Malignant Melanoma as regards its relentless course, and tragic end, remains as great as ever; however, we are able today to point with a good deal of satisfaction to some of our apparently favourable results.

Our series of forty-six cases is small indeed in comparison with other reported series, and, therefore, of questionable statistical import. Yet, a study of these forty-six cases has led to certain conclusions which are perhaps worthy of consideration. We have in our series a few cases which have come under our management within recent months, and therefore, cannot be placed in any statistical table of survival.

TABLE I — Malignant Melanoma — 40 Cases — Five Year Review

Age Incidence	40 Cases		Total
	Male	Female	
0 - 20	0	3	3
20 - 30	1	3	4
30 - 40	0	7	7
40 - 50	2	4	6
50 - 60	2	5	7
60 - 70	3	2	5
70 - 80	9	4	13
80 - 90	0	1	1
TOTAL	17	29	46

TABLE I illustrates that the highest incidence occurred between the ages of 70 and 80. In our series, 28% of all malignant melanoma occurred in this age group, whereas 15% occurred in the group between the ages 30 and 60. Although the disease is said to be found equally in both sexes, we have treated almost twice as many females as males here. We cannot explain this fact.

	Per Cent	Alive	Dead	Total
Lower Extremity	(39.1)	8	10	18
Upper Extremity	(23.8)	9	2	11
Head and Neck	(21.7)	5	5	10
Trunk	(15.2)	2	5	7
TOTAL		24	22	46

TABLE II shows us the anatomical distribution of the primary lesion. You will note that the lower extremity is the common site of the malignant melanoma, 39% in our series. It will be noted also that of the total of eighteen cases of the lower extremity, ten are dead. The upper extremity is next in order—23.8% but with two deaths in eleven cases. The highly dangerous anal region lesion has not been observed here to our knowledge. It will be observed that approximately 50 per cent patients have died.

TABLE III — Malignant Melanoma — Symptoms in Thirty-Eight Cases

Growth.....	19
Bleeding.....	5
Trauma.....	4
New Lesion.....	3
Colour changes.....	3
Ulceration.....	4
TOTAL	38

In 8 cases of our series of 46, the initial symptoms were not clearly stated.

The most prominent symptom is that of growth. Nineteen patients gave this symptom as one for which they first consulted a doctor. A mole is described as being the initial lesion in twenty-one cases. Three cases gave birthmark as the site of malignant change—three others, lymph gland enlargement. Bleeding and trauma of the upper extremity, and waist, and face has been given as the first inclination of malignant degeneration in nine cases. We attach particularly grave prognosis to bleeding and ulceration as a symptom, as it usually implies that the melanoma has spread beyond the local lesion. New lesions as a first symptom were but three in number, and two of these have died. One female, age twenty-three, with twin, new lesions widely separated on her abdominal wall, appears to be in good health without signs of metastasis, two years after effective treatment.

Treatment

Biopsy of a suspicious lesion is not wise. Excision biopsy is preferable and does not disseminate the highly malignant nevi cells to nearly the same extent. Wide excision, and by that we mean an area of three inches all around the tumour should be carried out. As there are but few areas in the body where this can be done and yet approximate the skin, grafting is nearly always necessary. Pack (VII) goes a step further and maintains that all skin tumours, no matter how innocent they appear, should be widely excised.

TABLE IV — Malignant Melanoma — Method of Treatment

	Alive	Dead
Excision only	2	6
Excision and skin graft	2	2
Amputation	0	2
Radical gland removal	16	9
Fulguration	1	1
Excision & X-Ray	0	1
Refused treatment	1	1
No treatment advised	0	1
Other means, NH ₂ , etc.	0	1
TOTAL	22	24

(Of the sixteen cases who had palpable lymph glands present, seven were positive for malignancy).

Wide local excision of the primary lesion at the very beginning, with skin grafting, is considered by most operators as the method of choice. This can only be done satisfactorily under general anaesthesia. Our series shows eight patients treated by excision only, with six deaths, whereas 2% are alive out of four treated by excision and skin grafting. One, a girl of eleven years, who had a lesion over her patella excised and skin grafted four years ago, is alive and well. Another, a woman of thirty-five, who was similarly treated for a melanoma on her little finger is alive and well, three years later. Many of the patients who come to us have had previous treatment in the form of biopsy, cauterizing, fulguration, or X-ray treatment. We believe that such tinkering will gravely jeopardize the patient's chance of survival. It has been shown in the study of many statistics that meddlesome surgery does stimulate the nevus cell.

Radical procedures, that is, wide local removal, skin grafting, radical lymph gland dissection, sometimes in continuity with the local lesion, appears to favour the prognosis in our small series. We advise prophylactic lymph gland dissection in treatment of a malignant melanoma as is advocated by many authors. However, it is difficult to find consistent support of this viewpoint in the literature. Palpable, regional lymph nodes in the patient with melanoma are not necessarily malignant and even if they are found to be malignant, surgical removal may be beneficial. Although there may be many arguments to the contrary, we should remember that we are dealing with a rapidly moving and highly malignant lesion that calls for all the wisdom and good cancer surgery at our disposal. We fully realize that delayed or therapeutic dissection has its supporters, but Ackerman (IX) clearly states that in his opinion patients with regional lymph gland involvement are already too late for adequate lymph node removal. Other means of treatment, such as X-ray therapy, nitrogen mustard with cortisone, have been used in the treatment of far advanced and hopeless cases without beneficial results to our knowledge. Amputation has been the method of treatment in two cases, both of whom were seen with far advanced disease. Ultra radical measures, such as four quarter amputation, hemipelvectomy or disarticulation at the hip, have not been used, neither have we carried out the ultra radical regional lymph gland dissection as advocated by Grey and Bailey (III). Orchidectomy as a method of dealing with recurrences likewise has not been employed. One writer on the subject, Herbst (VI) advocates this as a palliative measure only. Neither have we used the chemical substances T.E.M. or T.E.P.A. for recurrences or for advanced cases as has been employed elsewhere.

TABLE V — **Five Year Survival Rate** — **(34 Cases)**

Year	1	2	3	4	5
Number Surviving	13	7	6	6	2
Per Cent	38.2	20.5	17.3	17.3	.5

Two of this group have known recurrences at one and two years respectively. Two have died in their fifth year.

TABLE V gives us some opinion of our five-year survival rate. Here we must discard twelve patients in our series. These are the ones who have been treated under one year. Conclusions, therefore can only be drawn from the thirty-four remaining cases. In this respect our statistical table is in keeping with observations elsewhere. Two of our patients have died at the end of the fifth year of malignant melanoma. Four others have now lived without known recurrences beyond the fourth year.

Complications and Oddities of Malignant Melanoma

In 1947 Trueblood reported a white girl with a malignant melanoma who turned black from head to toe, even to her mucous membranes; two other such cases have been reported. Meyer and Gumport (IV) report a twenty-four year old mother with melanoma metastasis to the groin who gave birth to a baby girl two years later. The child was admitted to the hospital at the age of nine months with malignant melanoma of the auditory canal and mastoid region. Other instances of transplacental metastasis have been reported. The African negro develops malignant melanoma on the whitest part of his body, the sole of his foot, and then usually without any evidence of a mole or similar lesion as the focus.

Summary

A review of the diagnosis and treatment of forty-six cases of malignant melanoma has been presented. These patients have not had, for one reason or another, uniform treatment. Of 16 patients who had enlarged regional glands removed, 7 had malignant involvement. 2 patients without malignant glands have survived from one to four years. Prophylactic regional gland removal in malignant melanoma is advised.

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Spondylolisthesis

B. F. MILLER, M.Ch., F.R.C.S.

SPONDYLOLISTHESIS is an awkward word, derived from the Greek meaning "sliding of the vertebrae."

The condition was described by Kilian in 1854, and was of considerable interest to obstetricians, because of the forward displacement of the vertebral column, usually at the level of the fifth lumbar vertebrae.

For many years, discussion centred mainly as to whether the cause of this affection was a congenital malformation, or whether trauma was the predisposing cause. It was generally accepted that a congenital defect in the neural arch situated in the pars interarticularis was the basic pathology, and this condition was called spondylolysis. If slipping occurred with or without trauma, the term spondylolisthesis was then used.

In recent years, some interesting facts have been presented which cast some doubt on the congenital anomaly theory. For although the incidence of spondylolisthesis in the adult is about 5%, surveys have failed to find a proportionate number of defective neural arches in infants, and the normal adult rate of 5% only becomes apparent at about the sixth year of life. To confuse the issue further, the condition is known to have a high familial incidence, and is associated with other anomalies such as spina bifida of L5 and of the sacrum. Also, recent work shows a high incidence of neural arch defects in Alaskan natives, out of all proportion to their appearance in the general population.

Originally spondylolisthesis was thought to be a condition peculiar to women since it was encountered as a cause of pelvic disproportion during delivery. We now know that it appears at least as commonly in men.

Whilst the condition could exist without symptoms, many patients complained of recurrent low-back pain brought on by forward bending and lifting. Only a small number complained of sciatica. The backache was explained on the basis of an "unstable back," and the sciatica was considered to be caused by stretching of the involved spinal roots after slipping had occurred.

The diagnosis is made by X-ray, and oblique views are essential. Where there is no slipping or minimal slipping, it is of use to trace out the "Scottie dog" on the oblique views, and where spondylolisthesis is present, the dog will be seen to have a collar.

It used to be thought that progressive slipping was of frequent occurrence. This, plus the concept of an "unstable back," made the operation of spinal fusion a logical method of treatment. Most surgeons were reasonably well pleased with the degree of relief of pain which followed a fusion, and of course a successful fusion prevented any further forward slipping of the vertebral column. A posterior fusion was the method of choice, although at times it was made difficult by an associated spina bifida of the last lumbar and sometimes of the sacral segments.

The draw-backs to this method of treatment were firstly the high proportion of "failed" fusions estimated as up to 35%. This failure rate, I am sure, was markedly improved by the use of iliac bone. Again, if discs and roots were to be explored, the amount of laminae removed increased the technical difficulties in grafting, and the very mobile neural arch itself was of no help

in getting a graft to "take." Finally, the prolonged convalescence of 6 months to 1 year required for firm bone healing was in itself a great draw-back to this method of treatment.

However, the results of conservative treatment were usually not well received by the patients, and in recent years other methods of operative relief were tried. The old simple concepts of pathology and treatment have been challenged, notably by Gill and his associates of San Francisco (1955), and more recently by King and his colleagues of Sayre, Pennsylvania.

We have all seen cases of gross slipping where the body of L5 has literally tilted down in front of the sacrum. These cases do occur, but in most cases the slipping is minimal. The above mentioned authors maintain that slipping occurs in childhood, and that further slipping in adult life does not occur, or at least, not to any extent. King has demonstrated at operation that the body of L5 is firmly fixed to the top of the sacrum, so that "little or no motion could be produced by trying to rock it or even by pounding on it with a hammer." He logically concluded that "fusion in such a situation seemed superfluous."

It was also found at operation that the affected neural arch was excessively mobile, and obviously was not contributing anything to the stability or strength of the back. In fact, the "rocking" of this segment on flexing and extending the spine caused alternate impingement and stretching of the soft tissue, especially the capsule of the lower articular facets. Again at operation, a constant finding was of a large mass of fibrous tissue at the site of the false joint in the pedicles. It was demonstrated that this mass caused direct compression of the L5 spinal root in the neural foramen.

On the basis of these arguments, simple removal of the mobile neural arch and decompression of the nerve roots becomes a delightfully logical procedure. No one can be sure that further slipping may not take place, but certainly retention of the mobile neural arch could have no part in preventing it. If slipping did occur, a spinal fusion could still be done. Both Gill and King are gratified at the success of their cases. The patients are promptly relieved of their pain, do not require corsets or braces, and their period of hospitalization is cut down from months to 2 weeks. They return to work in 2 months, rather than in 6 or more months as is the case with a spinal fusion.

A few cases have been done locally, and in all cases the mass of fibrous tissue underlying the pseudarthrosis was a constant finding. It is obvious that all of this tissue must be removed to thoroughly decompress the nerve root. The immediate results in our cases have been gratifying, although sufficient time has not elapsed to allow us to draw further conclusions.

It is probable that in selected cases this operation will become the procedure of choice in the treatment of spondylolisthesis with associated root pain.

Emergency Treatment of Chest Injuries and Their Complications

E. P. NONAMAKER, M.D., F.R.C.S.(C)

DUE to the high incidence of car accidents today chest injuries of varying degree, from the simple rib fracture to fatal crushing injuries, are commonly seen. These injuries are serious because of the disturbance of the mechanics of respiration which may occur, and which, if not corrected, may result in a fatal termination in a relatively short period. Frequently the chest injury is only one of several injuries and may easily be overlooked unless a careful examination is made. Corrective procedures must be carried out promptly before severe anoxia occurs. Immediately upon admission to hospital a chest X-ray must be taken if there is any suggestion of injury to the thorax. This gives information about the present status and serves as a baseline for latter examinations.

The following is a brief discussion of the more common states which may occur as a result of chest injury and their management.

Pneumothorax

Pneumothorax is a common complication of chest injury. The injury may be relatively minor, such as a simple fractured rib which at the time of impact punctures the lung and causes an air leak. Occasionally a valve-like action occurs at the site of injury to the lung and air can enter the pleural cavity but not escape, so that a tension pneumothorax develops in which the lung collapses, the mediastinum shifts to the contralateral side, shock and collapse develop and if the condition is allowed to persist death may occur. The presence of surgical emphysema over the chest and neck usually means that a pneumothorax exists.

The treatment of pneumothorax is simple. If there is only a minimal degree present on the admission X-ray no active treatment is necessary except to watch for any signs of increasing pneumothorax. Increasing dyspnoea or decreased breath sounds demand re-X-ray and if the pneumothorax is increasing the air must be removed.

The most satisfactory way of treating pneumothorax is to insert a piece of polyethylene tubing or small catheter through the second interspace anteriorly by means of a chest trocar and canula and connecting this to a water seal drainage bottle. If this equipment is not at hand a large bore blunt needle may be inserted through a cork, so as to regulate its depth in the pleural cavity, and strapped to the chest wall with the point just penetrating the parietal pleura, and the needle connected to a water seal drainage bottle. Usually re-expansion will take place in a few days. It is then well to clamp the tube for a period of 24 hours before removing it in order to ascertain if the leak in the lung has healed.

Crushed Chest. (Flail Chest)

This, one of the most serious injuries which may occur to the chest, is also known as flail chest due to the paradoxical movement of a portion of the chest during respiration. The sternum is most frequently involved due to the impact against the steering wheel of a car. As a result of pain and loss of rigidity of the thoracic cage the patient is unable to clear his secretions from the bronchial tree and also unable to obtain an effective respiratory exchange with the result that anoxia develops and in severe cases death will rapidly ensue unless very quick action is taken to correct these physiological abnormalities.

In the severe cases of crushing chest injury the patient is usually in a serious condition on arrival at hospital and it is our policy to do an immediate tracheotomy so that the bronchi can be kept clear of secretions which he is quite unable to cough up for reasons stated above, or because he has an associated head injury and is in a comatose state. As soon as the tracheotomy is performed the airway is cleared, and then the chest wall must be stabilized. As an emergency procedure outside of hospital it is helpful to strap this detached portion of the chest wall in the depressed position as this will give some relief from pain and assist in breathing and coughing. However, this is not satisfactory for permanent fixation as it gives rise to considerable deformity and reduces the volume of the thorax. To obtain permanent fixation the intercostal nerves concerned should be blocked with novocaine and the segment involved elevated into normal position and held by two or four towel clips which are inserted into the costal cartilages on either side of the sternum supported by means of an overhead pulley with five to seven pounds weight. This position must be maintained for several weeks until the chest wall is stabilized.

Associated pneumothorax must be treated as outlined above. It may be bilateral in this type of case. At the same time treatment of shock and collapse is being carried out, intra-tracheal oxygen can be used if a tracheotomy has been done, and broad spectrum antibiotic coverage should be started. If haemothorax is present the blood should be aspirated from the thoracic cavity.

Crushing injuries of lesser severity such as multiple fractured ribs without flail chest may be handled by intercostal blocking with novovaine and sedation, if there is no associated head injury. Strapping is not used except in simple rib fractures. Cough depressants should not be used as it is very important to maintain the cough reflex in order to keep a clear airway. Pneumothorax and haemothorax must be watched for and treated as outlined above.

Penetrating Wounds

These wounds are usually gunshot, bullet, or stab wounds. As an emergency treatment open wounds must be covered with a tight dressing to prevent sucking of air in and out of the chest with resultant mediastinal flutter. The greatest problem with this type of wound is haemorrhage. However if the damage has not been great enough to cause death almost immediately there is a very good chance that the bleeding will stop spontaneously.

On admission to hospital an X-ray is taken immediately. If there is any quantity of blood present in the chest it is aspirated at once and then depending on the patient's clinical response to resuscitation which includes blood transfusion, and whether or not there is X-ray evidence of further bleeding, decision

must be made regarding the advisability of doing a thoracotomy to stop haemorrhage. In those cases in which thoracotomy is not carried out all blood should be aspirated from the pleural cavity daily so as to prevent an organized haemothorax which would probably necessitate a decortication operation later on.

Atelectasis

Atelectasis may occur due to aspiration of a foreign body at the time of the accident, from aspiration of vomitus, or due to secretions blocking the bronchus. In this condition the mediastinum will move to the side of the collapsed lung unless there is associated haemothorax or pneumothorax which might prevent this. Whatever the cause it is most important that the condition be recognized promptly and the airway cleared of any blockage which might be present. It may be possible to do this by simple suction; if not, bronchoscopic removal will have to be carried out.

Other injuries such as a ruptured diaphragm, torn thoracic duct, ruptured oesophagus, etc., must be kept in mind as they are all very serious when they occur, and must be repaired.

It is of course understood that appropriate measures to combat shock and collapse are carried out simultaneously with the specific measures mentioned above. Blood transfusions are preferable for this purpose but plasma expanders can be used if blood is not available, until such time as blood can be obtained. Broad spectrum antibiotics should be started at once to prevent other complications such as empyema and pneumonia.

Summary

Crushing injuries of the chest are frequently present in patients who have other serious injuries and for this reason may be overlooked. A careful physical examination will reveal these injuries and the changes in the mechanism of respiration which accompany them.

It is absolutely essential that corrective measures be taken immediately before anoxia causes grave alterations in body physiology.

The various types of injury and their treatment are discussed.

The Use of Injectable Hydrocortone In Office Practice

J. H. CHARMAN, M.D., F.R.C.S. (C)

It is the purpose of this paper to discuss a group of conditions commonly seen in office practice which usually will respond to the injection of Hydrocortone. These conditions include degenerative lesions of musculotendinous cuff of the shoulder, tennis elbow, stenosing tenosynovitis and ganglions.

Lesions of the Musculotendonous Cuff of the Shoulder.

The musculotendonous cuff of the shoulder is made up of the infraspinatus, supraspinatus and subscapularis tendons. The subdeltoid or subacromial bursa is interposed between the musculotendonous cuff below, and the deltoid muscle and the acromion process above. Due to the constant wear and tear on this cuff, because of its repeated contact with the acromion on abduction movements, it is very susceptible to degenerative process. The first thing seen microscopically is a hyaline degeneration in the collagen fibres of the tendon. These fibres become fibrillated and form loosened straps or bands in the substance of the tendon. Motion of the part completes the break-off of these fibres and they come to lie as curled-up rice-like bodies in a cavity in the substance of the tendon. Continued motion grinds these rice-like bodies into a wenn-like substance composed of tendon debris. Calcium salts may be deposited in this material so that it becomes radio-opaque.

Symptoms and Course.

As long as this substance remains in the centre of the tendon which is avascular and poor in nerve ending and therefore incapable of inflammatory reaction, no symptoms occur. This explains the common incidental finding on X-rays of the shoulder of calcified deposits with no referable symptoms. However due to mild trauma or further degeneration of the overlying tendon varying amounts of this material break through into contact with the floor of the subacromiobursa. This bursa is a vascular structure, well supplied with nerve endings so that an acute inflammatory reaction to this foreign body occurs. The acute inflammatory reaction produces pain in the shoulder. This pain varies with the amount of the material which comes in contact with the bursal floor and by the severity of the inflammatory reaction thus produced. There is no relationship between the size of the deposit and the amount of the pain but only with that amount of material which is in contact with the bursal floor. The pain is typically felt in the shoulder, at the deltoid insertion, in the neck and even into the arm and fingers in acute cases. It has been shown that injection of normal saline in sufficient quantities into the subacromial bursa will produce pain radiating into these sites. If only a small amount of material reaches the bursal floor the pain is not severe, being dull and aching in character. If a large amount reaches the bursal floor it may be agonizing. Due to the acute inflammatory reaction and the collection of inflammatory exudate, pressure is built up in the collection and it comes to point in the floor of the bursa like a furuncle. The presence of the exudate makes the material wet and greasy, like cream and the collection is under tension so that it spurts

when used. This material usually bursts into the bursa and is phagocytosed and removed. Once this happens, the attack subsides. This represents the acute attack of supraspinatous tendonitis or subacromial bursitis. In contrast to this we have in many cases only a small gap in the tendon allowing only a small quantity of this degenerated material to reach the floor of the bursa at one time. This leak may occur intermittently or continuously, producing relatively mild intermittent or continuous ache in the shoulder. In these cases the material is dry and cheeselike, and is under no tension because very little inflammatory exudate accumulates in it since the inflammatory reaction is mild. These small amounts are likewise phagocytosed and removed. In time the condition tends to cure itself. Therefore both the acute and chronic conditions tend to be self limiting since the inflammatory reaction produced tends to cause the absorption of the material once it reaches the bursa. Many cases of acute supraspinatous tendonitis give a history of preceding chronic pain in the shoulder or of mild recurrent attacks of shoulder pain. What has happened in these cases is that the small hole previously present has been enlarged by trauma or by further degeneration of the tendon cuff so that a large amount of degenerative material is suddenly allowed to come in contact with the floor of the bursa, thus leading to an acute attack.

On examination of the patient we find an acute point of tenderness over the area of the deposit, while abduction of the shoulder causes pain. This pain is typically felt in the mid-range of abduction between 60 and 120 degrees as the deposit passes under the acromium. The first few degrees of abduction may be relatively pain-free, but when the deposit reaches the acromium process, severe pain is felt. Again, when it has passed under the acromium at about 120 degrees, the remaining range of abduction may be relatively pain-free.

Differential Diagnosis.

1. Arthritis of the Shoulder.

Here we find no point tenderness such as that found in supraspinatous tendonitis. Pain is felt throughout the whole range on abduction. Pain is felt in all shoulder movements. The X-ray findings are usually typical.

2. Prolapsed Cervical Disc, and Other Causes of Root Pain.

Root pain is usually worse at night. The spine elongates in the horizontal position, thereby stretching the nerve over the prolapsed disc producing more pressure on the nerve and therefore more pain. The distribution of nerve root pain is typically felt in the affected nerve segment. This pain is aggravated by coughing and sneezing. Nerve root pain is intensified by stretching the nerve, such as by applying traction to the arm. Reflex and sensory changes may be present in the affected segments. The X-rays of the cervical spine may show narrowing of the intervertebral spaces with loss of normal lordosis. Most of the cases will respond promptly to cervical traction.

3. Coronary Occlusion.

Coronary Occlusion must, of course, be kept in mind as a cause of shoulder pain, but usually causes no great difficulty in the differential diagnosis.

Treatment.

It has been found that most cases, both acute and chronic, will respond to injections of Hydrocortone into the bursa and involved area. The area

of point tenderness on the tip of the shoulder is marked out by palpation and into this area is injected 25 mgms of Hydrocortone. This may cause marked aggravation of the pain during the next few hours and it is wise to give the patient sedation to tide him over the next twenty-four hours, to be used if necessary. Frequently in the acute case, only one injection is necessary. Improvement with one injection will continue over a week's period and it is wise to see the patient in one week's time and if any pain or tenderness is present, to repeat the injection. The same applies to the chronic type of case, but here it may be necessary to give three or four injections, one week apart. The patient should be encouraged to move the shoulder as soon as the pain subsides enough to allow him to do this since this encourages the movement of the material into the bursa where it can be phagocytosed and removed. In the occasional chronic case, with a large deposit, the shoulder may fail to respond to this therapy and it may be necessary to do an operative removal of the degenerated material from the substance of the tendon.

Tennis Elbow.

The term "tennis elbow" is commonly used to include epicondylitis of the lateral epicondyle, incomplete tear of the fibres of origin of the forearm extensors from the epicondyle, and lastly a radio-humeral synovitis. The latter is the most difficult to treat, the reasons for which will be apparent from the following discussion.

A circular fold of synovia is present lying around the head of the radius, similar to a semi-lunar cartilage of the knee, the radio-humeral synovial fold. When the elbow is flexed the capitellum and the head of the radius are not in contact, but when the elbow is extended and supinated the two are brought into close contact and thus the radio-humeral synovial fold may be pinched repeatedly during various activities. As a result the membrane becomes oedematous and hyperaemic which leads to thickening of the membrane with formation of villous processes projecting into the joint, thus lending itself to further pinching. This produces pain in the radio-humeral joint noted on extension and supination of the elbow. Occasionally crepitus may be noted on this movement. Pin-point tenderness is present over the radio-humeral joint. Abduction of the forearm with the arm supinated and extended so as to pinch the fold produces pain. If the condition is allowed to persist the fold becomes fibrosed and hypertrophied and the condition can then only be cured by surgical excision. Probably the commonest cause of tennis elbow is an incomplete tear of the fibres of origin of the forearm extensors with a secondary periostitis in the external epicondyle. It occurs in individuals whose occupation or recreation involves frequent pronation and supination of the almost fully extended elbow. We therefore see it frequently in tennis players, carpenters and painters. The pain is felt in the dorsum of the forearm and elbow. Frequently the person will tell you he is unable to turn a door handle or to hold a cup of tea for fear of dropping it. On examination there is point tenderness over the external epicondyle and adduction of the extended forearm, thus opening the joint on its lateral surfaces and stretching the extensors will produce pain in this area. Extension of the elbow with the forearm supinated and the fingers and wrist flexed will produce pain in the area of the epicondyle since it pulls on the extensor origin. Occasionally X-rays of the elbow area will show some periosteal reaction at this site.

Treatment.

The so-called "tennis elbow" due to epicondylitis or an incomplete tear of the fibres of the forearm extensors will rapidly respond to injections of Hydrocortone in the tender area. Usually no more than two injections are necessary separated by one week's interval. In the rare case where the radio-humeral synovitis is the cause of the symptoms, if the condition is seen early before the synovia has fibrosed and hypertrophied, Hydrocortone injections will suffice. However, if the condition has reached the stage where the synovia has fibrosed and hypertrophied, only surgical excision of the fold will cure the condition.

Stenosing Tenosynovitis.

Stenosing Tenosynovitis is a constriction of the tendon sheath which interferes with the free gliding of the tendon, usually occurring in the hands but occasionally in the foot. The common sites are as follows:

1. The radial styloid.

This is the most frequent site. Here the tendons of the abductor pollicis longus and the extensor pollicis brevis share a common synovial sheath. This condition was described by de Quervain in 1895 and is known as de Quervain's Disease. The tendons are bound to a trough in the radial styloid by a tough fibrous retinaculum. Frequently the abductor pollicis longus is made up of two or three tendons at this level.

2. The flexus pollicis longus tendon.

3. The palmar sheath for the tendons of the flexus sublimus and profundus tendons.

Pathology.

Stenosing tenosynovitis is an occupational disease produced by continuous friction of the tendon against the narrowest section of its sheath. If seen early, inflammatory changes are noted, with oedema of the synovial lining and a synovial effusion. This produces further narrowing so that an hour glass type of deformity occurs in the sheath at this point. As a result an hour glass deformity occurs in the tendon with swellings above and below the constriction. The swellings above and below the constriction then move through the stenosed area with difficulty, producing pain. A snap may be heard as the bulb is pulled through the narrowed segment.

Since each finger has two strong flexors as opposed to one relatively weak exterior it is sometimes possible to flex the finger whereas the extensor is not strong enough to extend it again once it is flexed. These changes are noted at the narrowest points of the sheath. Normally retinacula are provided opposite joints to prevent bow-stringing of the tendons. At these places the tendons are usually lined by synovial sheath to provide free gliding movement. A well developed flexor retinaculum is provided at the wrist and opposite the metacarpal phalangeal joint where the greatest tendency towards bow-stringing occurs. To a lesser degree it would tend to occur at the interphalangeal joints. The tendons at the radio-styloid are held against the radius by a fibrous ligament approximately 1 mm thick and approximately 2 cm wide. The tendon of the flexor pollicis longus runs through a narrow channel opposite the metacarpo-phalangeal neck at the level of the sesamoids. This channel is

formed by the grooved palmar surface of the first metacarpal neck and the transverse fibres of the retinaculum. It is at this site that constriction usually develops. In the case of the flexor digitorum, narrowing is present at two points—(a) a narrow tunnel passes the common tendons from the palm to the wrist; it is formed by the metacarpal necks and the retinaculum, and (b) opposite the middle of the proximal phalanx where the sublimus splits into two slips between which the tendon of the profundus passes.

deQuervain's Disease.

This condition is a stenosing radial tenosynovitis. This is caused by an inflammatory reaction in the common sheath of the abductor pollicis longus and extensor pollicis brevis, in the narrow tunnel at the radio-styloid. It is characterized by pain over the radial aspect of the wrist with pain and weakness in the grip of the hand. Examination may reveal slight prominence at the radio-styloid with a palpable thickening of the sheath. Moderate to marked tenderness over this area will be present. There will be limitation of abduction of the thumb and forced active abduction against resistance is painful.

Passive ulnar deviation of the hand produces severe pain over the radial styloid with a marked increase in this pain on making a fist with the thumb clenched under the fingers.

This condition if seen early before chronic changes have occurred in the sheath will respond to injections of Hydrocortone into the involved area. However, if chronic changes have occurred, only division and partial excision of the overlying retinaculum will cure the condition.

The Flexor Pollicis Longus.

As previously stated stenosing tenosynovitis occurs opposite the metacarpal neck at the level of the sesamoids. It is sometimes seen in infancy. The infant holds the thumb flexed and he cannot passively extend it as far as the other thumb. Ordinarily an infant can hyperextend his thumb to approximately 220 degrees. Here dorsi-flexion is painful. Sometimes the thumb can be passively dorsiflexed with a definite snap. Some tenderness may be found in the midline of the metacarpo-phalangeal joints between the sesamoids. The condition may be bilateral. In adults the condition is characterized by painful, difficult flexion of the thumb, often with a snap. Sometimes the distal phalanx becomes fixed on flexion, requiring help to straighten it out. Passive hyper-dorsi-flexion is limited and produces pain. Tenderness and thickening may be noted opposite the metacarpal neck. When the condition is of long-standing, palmar flexion of the distal phalanx may be impossible.

This condition, if seen early, either in the infant or adult, can be rapidly cured by Hydrocortone injections. However if the condition has become chronic with marked thickening of the synovial sheath and hour-glass formation of the tendons, only operative intervention will cure the patient. The retinaculum at this level must be divided, once again allowing free movement of the tendon.

The Flexor Digitorum.

As previously stated tenosynovitis may occur either at the wrist or opposite the middle of the proximal phalanx, the latter being the common site. The resulting condition is known as trigger-finger. Here the tenderness is localized at the midline of the metacarpal-phalangeal joint with pain and snapping on motion, while locking in a flexed position may be present. Each finger has

two strong flexors as against one extensor, therefore the finger usually can be flexed with a snap but one is unable to extend the finger because of the weaker extensor being unable to pull the bulbous enlargement through the constriction of the sheath. Sometimes the bulbous enlargement distal to the constriction becomes so large the patient is unable to pull it through. The finger then loses active flexion while passively it can be moved through a normal range. In chronic cases a fibrous thickening of the sheath is present and the tendon looks greyish. If the condition is seen early again it can be cured by Hydrocortone injections. If however it is not seen until the chronic fibrous condition has developed, free gliding can only be established after dividing the constriction of the sheath.

It should be remembered that all incisions wherever possible should be in the skin creases. The sheath should be divided longitudinally. It is wise to do these patients where possible under local anaesthesia so that it is possible to see that free gliding of the tendons has been restored by surgery. In closing, suture only the skin. The patient should be encouraged to move his finger freely in the post-operative period.

Ganglion.

A ganglion is an encapsulated cystic swelling arising from the subsynovial connective tissues of joints and rarely from tendon sheaths. The common sites are the extensor and flexor aspects of the wrist and carpal joints and, less commonly, the ankle and tarsal joints. They may arise from the digital sheaths of the index, middle and ring fingers. Here they are usually small and very tender.

Pathologically they appear to be a mucinous degenerative process of the joint capsule. They may be associated with mild trauma. There usually is a broad pedicle attached to the joint.

The treatment of ganglia, in years gone by, was a sharp blow with the family Bible. This is reputed to have cured approximately 50% of cases. With surgical excision the cure rate rises to approximately 75%. It is difficult to be sure with surgical excision that all the degenerated tissue from the joint capsule has been excised and therefore in a certain proportion, recurrence will take place. Again a common error in the past has been to consider that ganglia around the wrist arise from the tendons and complete removal was not carried out down to the joint capsule. A small portion of the joint capsule must be removed if cure is to be obtained. By far the most satisfactory treatment for these ganglia is the injection of a small quantity of Hydrocortone. Usually two or three injections at weekly intervals will cause the ganglia to completely disappear. Occasionally they will recur in a year or two and again usually will be found to subside very promptly with further injections. Due to the relatively small size of the ganglia it is rarely possible to put in more than 12.5 mgm with one injection. It is wise before injecting the Hydrocortone to aspirate a small quantity of fluid from the ganglia to make sure the needle is within the wall. No great amount of pain is experienced following this procedure and the results are excellent.

SUMMARY.

A group of conditions commonly seen in an office practice have been discussed. Their diagnosis and treatment have been outlined briefly. The majority of these conditions can be treated safely and with good results by local Hydrocortone injections.

Malignant Tumours of the Face and Mouth

J. A. MYRDEN, M.D.

MALIGNANT tumours about the face and mouth together constitute one of the most common malignancies of the body. The prognosis varies from excellent, in basal cell carcinoma, to poor, in certain carcinomas of the tongue. Diagnosis should be made early in the course of the disease and without difficulty. However, we still find cases where a malignant ulcer has been present for some time without being biopsied and proper treatment instituted. Any ulcerating lesion which has been present for three weeks or more, and not responding to the usual conservative method of treatment, should be given the benefit of the pathologist's examination.

These neoplasms are usually found in those over forty-five to fifty years of age. The male is more often affected. The type of malignancy is usually the squamous cell carcinoma. It spreads by direct continuity, by lymphatics, and least often by the blood stream.

Many of these tumours are radio-sensitive and may be cured by this form of therapy. However, these lesions can be readily excised. Surgery, contrary to common belief, is usually less traumatizing to the patient than the former method. The patient's period of hospitalization is less and the discomfort reduced to a minimum. Where lymphatic spread occurs the only form of cure is surgical removal of the involved lymph nodes. Metastatic disease cannot be cured by radiation therapy.

Since 1953 tumours of the head and neck region have been handled by the Head and Neck Division of the Nova Scotia Tumour Clinic and Surgery "C" Service of the Victoria General Hospital. This has resulted in one group gaining a wide experience which in turn means better treatment for the patient. These cases are examined in the Tumour Clinic by the members of the surgical and radiotherapy departments, and then referred to hospital if further investigation and treatment are indicated. After hospitalization patients are followed in the Clinic at regular intervals. This follow-up is most important so recurrent or metastatic disease may be detected early and proper treatment instituted.

The foregoing is a summary of how the commoner malignancies about the face and mouth are treated by the Head and Neck Service at the present time.

Malignant Tumours of the Face

Squamous Cell Carcinoma

Squamous cell carcinoma of the skin usually develops from pre-existing keratoses, particularly in those whose skin is exposed to the weather or in an area of radiation dermatitis. Rarer causes are found in burn scars (Marjolin's ulcer), excessive exposure to certain carcinogenic coal-tar products, and arsenical dermatitis. Squamous cell carcinoma may be found on any part of the face and is the commonest malignant lesion of the ear.

Surgical removal of this lesion is the primary form of therapy. About the face one should excise at least one centimeter of normal tissue in all directions. When this lesion occurs on the ear a partial removal may be adequate if the above requirements are met, otherwise as in large lesions a total removal

is necessary. Where the lesion involves bone this will have to be removed which often requires considerable facial reconstruction.

Metastases to the cervical nodes may occur and may be fatal. This complication is not frequent, therefore a neck dissection is not done routinely but only if and when node enlargements appear.

This type of tumour is radio-sensitive and can be treated quite well with this form of therapy. However its use is contra-indicated in those cases where bone is involved or will be damaged by the radiation. One would not use radiation in those cases who have a dry hyperkeratotic skin or those who have developed this lesion as a result of previous irradiation therapy for other reasons. Radiation is used only if the patient refuses surgery or if there is some serious medical contra-indication. The prognosis after adequate surgical removal is excellent.

Basal Cell Carcinoma

Basal cell carcinoma, or rodent ulcer, is a common form of malignancy. It is usually found in patients over fifty years of age and is seen on the upper two-thirds of the face.

It begins as a papule of the skin, surrounded, perhaps, by an area of hyperemia. The infiltration gradually extends in all directions. In the early stages there may be no ulceration. The condition is painless and the general health does not suffer until the advanced stages of the disease.

There can be no doubt whatever that the best treatment is surgical excision, because it is applicable to any lesion. Although this type of tumour is radio-sensitive, and the growth usually disappears after irradiation, yet in about five per cent of the cases the lesion recurs. The recurrence is widespread and often radio-resistant. Also these recurrences may be in the form of a squamous cell carcinoma with metastases to the regional lymph nodes.

There should be no recurrence after adequate surgical excision, which means removal of at least one centimeter of normal tissue surrounding the tumour. The resulting defect is closed by approximation of tissues if possible, or, more commonly, a full thickness skin graft taken from the neck or medial aspect of the arm. In those areas, such as the eyelids, plastic repairs can be performed to close the defect. Although the period of observation is only five years in the longest case followed, we have not had a recurrence after adequate surgical excision.

Malignant Melanoma

This tumour may occur about the face as in any part of the body. It metastasizes by the lymphatics to the cervical lymph nodes, by the blood stream throughout the body, or both. If there is no evidence of distal spread, wide removal of the tumour and a prophylactic neck dissection is indicated. Radiation is not used in this type of lesion.

Malignant Tumours of the Mouth

Carcinoma of the Lip

Squamous cell carcinoma of the lip is the most frequent malignancy occurring in and about the mouth. This lesion is found as a non-healing ulcer on the lower lip in over ninety per cent of cases. Ninety-five per cent are males. Metastases to the regional lymph nodes occur sooner or later in

approximately twenty per cent of patients, which accounts for practically all the deaths in this group.

The primary lesion is excised in most cases. Lesions less than 1.5 centimeters are removed by a V-excision, which includes at least one centimeter of normal tissue on either side. With larger lesions it may be necessary to remove the entire lower lip; a new lip is then fashioned by utilizing tissue from the cheek and upper lip. If the jaw bone is involved this should also be included in the resection.

A neck dissection is performed only when nodes become palpable and are proven to contain metastatic disease.

This type of tumour is radio-sensitive and may be cured by this method. However, this necessitates a greater number of hospital days and is more upsetting to the patient than surgical excision. For these reasons we prefer surgery. Up to the present time we have used this form of treatment for the widespread superficial lip lesions, but more recently have been favouring total excision of the lip. Once again radiation therapy is not curative for metastatic disease.

Carcinoma of the Tongue

Carcinoma of the tongue occurs between the ages of forty-five and sixty years. About ninety per cent of cases are in the male. The gross appearance may be one of three types: (1) Hard-edged ulcer; (2) A warty growth; (3) An indurated plaque. This type of tumour may be secondarily infected. These tumours are most frequently found on the lateral border of the tongue. About sixty to seventy per cent metastasize to the cervical lymph nodes on the same side, though occasionally crossed metastases are seen.

For purposes of treatment one considers whether the primary lesion is on the tip, lateral border or posterior portion of the tongue. Lesions, less than two centimeters in diameter, on the tip may be excised. Those larger and extending across the midline are probably best treated by interstitial radium. Lesions of the lateral border, not greater than two centimeters, may be treated by hemiglossectomy or irradiation. Lesions of the posterior third are usually not surgically removable. It is felt that because of the high incidence of metastases to the cervical lymph nodes, a prophylactic neck dissection should be performed. This may be done at the time of the radium implantation or six weeks later.

The over-all five year survival in this condition is twenty to twenty-five per cent.

If the mandible is involved, its surgical removal is indicated.

Carcinoma of the Tonsil and Soft Palate

In this area one may have an epidermoid carcinoma or an undifferentiated lympho-epithelioma. Both conditions metastasize to the cervical lymph nodes. The primary lesion is usually treated with interstitial radon seeds or external X-ray therapy.

If one feels the primary lesion can be controlled, then a neck dissection is performed because of the high incidence of spread to this area. In certain instances the primary tumour may be resectable.

Carcinoma of the Lower Jaw (Alveolar Carcinoma)

Bone invasion occurs very early and is usually present when the patient is first examined. This is one area where it is important to biopsy any ulcer which has not healed after three weeks.

This type of tumour is best treated by the combined operation where the jaw segment and neck dissection specimen are removed in one continuous block.

Carcinoma of the Upper Jaw and Hard Palate

This lesion is similar to that found in the lower jaw—rapidly invading bone. Because of this the treatment is block surgical excision, done through the mouth or, if necessary, a face flap may be turned back. A prophylactic neck dissection is usually not done.

Occasionally the primary lesion on the hard palate is very superficial and has not invaded bone. In this case radon seeds or surface X-ray therapy may control the primary lesion.

Carcinoma of the Floor of the Mouth

Cancer of the floor of the mouth includes all malignant tumours developing in the mucous membrane or minor salivary glands within the semi-lunar shaped gutter, bounded anteriorly by the lower gingival ridge and posteriorly by the border of the tongue and the anterior tonsillar pillars. Metastases occurs to the regional lymph nodes. Often the mandible is involved early because of its proximity to the tumour.

The primary lesion may be treated by irradiation and the regional lymph nodes removed when they become palpable. This results in approximately twenty-five per cent five year survival.

It is hoped that surgical removal of the primary tumour with a one centimeter margin of normal tissue surrounding it, will give better control and longer survival. If the periosteum or mandible are involved, a portion of this bone must be removed. It is recommended that a prophylactic neck dissection be done at the same time.

Buccal Carcinoma

This is a most difficult carcinoma to cure as it is so often very extensive when first examined. If a small lesion is found it may be surgically excised or treated with radon seeds. The regional lymph nodes are not removed unless there is proven metastatic disease. In more extensive lesions, those most commonly found, it is impossible to perform an adequate surgical excision and they are treated with some form of radiation. The results in this type are very poor, no matter whether it be radiation or surgery.

Points In The Management of Ulcers of the Lower Leg

IAN MACKENZIE, M.B., F.R.C.S.E.

ULCERS situated in the lower third of the leg, just above one or other malleolus, are, in the great majority of cases, the result of insufficiency of either the deep or superficial venous systems—due to existing varicose veins or previous deep thrombo-phlebitis. They are frequently termed “varicose” ulcers but as, in quite a proportion of the more intractable ulcers, varicose veins may be absent or inconspicuous, the terms “gravitational” or “stasis” ulcers are more appropriate. The portion of the leg commonly affected, namely the skin over the medial surface of the tibia in its lower third, has a poor arterial blood supply and when to this is added stasis of the venous return, a slight injury, sufficient to cause a break in the integrity of the skin or bruising of the underlying tissues, is the starting point of an ulcer which, without adequate treatment, enlarges centrifugally and can become very chronic.

Such ulcers are common and the sufferers are usually women with heavy domestic responsibilities in the lower income groups. Even if it were possible for them to take time off for bed rest to allow their ulcers to heal, home conditions are frequently unsatisfactory and hospitalization imposes severe financial burdens. Fortunately it is realized nowadays that the ambulant treatment of such ulcers produces results which, though possibly less rapid, are equally effective and it is only in the occasional case that bed rest is really necessary.

Ambulant Treatment: This requires careful supervision and the physician who undertakes the treatment of these ulcers must be prepared to carry out the treatment himself and not delegate it to someone who may not appreciate the importance of the finer points of the technique involved. Delegation of bandaging to assistants or nursing staff is only done when they are trained, trustworthy and interested.

The requirements are bandages impregnated with a paste composed of zinc oxide, ichthyol and gelatin, ordinary cotton bandages, and six inch wide elasto-crepe bandages. (Ordinary crêpe bandages are not adequate as they do not provide sufficient support).

Technique: An impregnated bandage is made quite soft by immersion in near-boiling water for five to ten minutes and is then applied very carefully to the affected foot and leg, beginning at the metatarsal heads and applying it evenly upwards. It should never be drawn tight, each turn being laid carefully on the limb so that it overlaps the one below without any tension. The heel must be included in the bandaging, so that when finished the skin of the foot and leg is completely covered from the metatarsal heads to just below the knee, a second bandage being used if one is not long enough. This layer of impregnated bandage is then covered with an ordinary four inch cotton bandage, applied in the same manner, in order to prevent the paste from oozing outwards and soiling the elasto-crêpe bandage. The latter should be six inches wide, as this width allows of more even application and is more comfortable for prolonged wear than the usual four-inch variety. The application of the elasto-crêpe bandage is begun on the foot, over the metatarsal heads, but in

this case it is applied firmly, full advantage being taken of its elasticity, each turn of the bandage being overlapped by the following one, and the heel again being completely covered. It is finally secured by strips of adhesive plaster which are more effective than safety pins for the purpose. The bandages thus applied are left on for seven to ten days at first, the patient being told to go about her affairs in the usual way. At the end of that time they are removed by cutting down the midline of the front of the leg and foot with blunt-pointed scissors and peeling them off the limb. Fresh bandages are re-applied in exactly the same way and after two or three such applications they can be left on for periods of fourteen days until healing is complete.

The criteria of a well-applied occlusive pressure bandage are:

(a) it must be comfortable, i.e. not cause pain or irritation.

(b) it must be secure and maintain its compression of the leg for the period it is left on, i.e. ten to fourteen days.

(c) it must be compact enough to allow outdoor footwear to be worn.

The essential points to note are (a) even application of the impregnated and cotton bandages without tension; and (b) firm even application of the elasto-crêpe bandage to give proper support to the limb, each bandage being so applied that no wrinkles are produced and the entire limb is covered from the metatarsal heads to just below the knee. Thus applied, the bandages can be worn without any discomfort for up to fourteen days.

Should the discharge be excessive, as it may occasionally be in the early stages, it is quite permissible to change the bandages more often than every seven to ten days, but such changes should be as infrequent as possible.

The ulcer heals progressively and healing is complete in eight to twelve weeks. Thereafter the limb must be kept supported and protected from injury by wearing an elastic stocking during the day. Such a stocking should be sufficiently strong to give the necessary support and should preferably be of the one-way stretch type, though the two-way stretch variety is permissible if the patient finds the former too uncomfortable to wear. Various types are now on the market, and recently full-length nylon-elastic stockings have become available which, though expensive, are comfortable and long-lasting.

Bed rest is not often necessary but is indicated when (a) the ulcer is large; (b) overt infection is present, indicated by signs of cellulitis in the surrounding tissues; or (c) there is much oedema of the leg and foot. In such cases the patient is confined to bed, with the foot of the bed elevated for six to eight inches on blocks, and local applications of ichthyol and glycerine, magnesium sulphate and glycerine or eusol are applied daily and kept in place with firm bandaging, again using a six-inch elasto-crêpe bandage. In the presence of infection a swab of the exudate is taken from the surface of the ulcer and sent to the laboratory for identification of the organisms present and their sensitivity to antibiotics. When this is known the appropriate antibiotic can be given, or applied as an ointment to the ulcerated area. (Penicillin cream however should not be used as a local application as it tends to cause severe sensitivity reactions). On such a regime most ulcers make rapid progress towards healing and once the oedema and infection have subsided the ambulatory regime already described can be instituted until healing is complete.

In those cases in which varicose veins are present these can be dealt with by one of the accepted surgical methods once the ulceration has healed completely.

Occasionally when the ulcer is very chronic or has recurred on several occasions, direct surgical intervention is indicated. This is undertaken after any local infection and oedema have been adequately treated and consists of excision of the ulcer and the surrounding indurated tissue and ligation of the perforating channels between the deep and superficial veins which are invariably present in such cases. The defect is covered by a split-thickness skin graft taken from the thigh, and a good long-term result can be expected providing proper precautions are taken subsequently to protect the area by wearing elastic stockings.

Chemistry and Mode of Action of Tranquilizing Drugs*

According to their mode of action and their pharmacological properties, all tranquilizers can be divided into two groups: those that affect the autonomic nervous system and those that do not influence it. To the first group, called autonomic suppressants, belong the derivatives of phenothiazine, the *Rauwolfia* alkaloids, hydroxyzine, and benactyzine. The only important tranquilizer belonging to the class of agents that do not affect the autonomic nervous system (the central relaxants) is meprobamate. The two groups also differ from each other in number of other important properties. Those that affect the autonomic nervous system (the autonomic suppressants) also block conditioned responses and lower the threshold to electroshock seizures and chemically induced seizures. They also potentiate the action of hypnotics and produce characteristic changes in the electroencephalogram that are related to those observed after the administration of atropine. In normal human beings they often produce a state characterized by insulation from the environment, and they may foster depression. These tranquilizers probably act in a manner not dissimilar to that of electroshock seizures or insulin coma, by stimulating the posterior hypothalamus. They act in a nonspecific manner on a variety of conditions by an action on the regulating centres.

Meprobamate differs in almost every respect from the tranquilizers of the autonomic-suppressant group. The drug does not affect conditioned responses and does not alter normal behaviour. It increases the threshold for electrical or chemical convulsions. Meprobamate does not affect the hypothalamic regulating centres or normal responsiveness to stimuli, but it selectively reduces exaggerated responses. Since psychoneurotics tend to react to stress by exaggerated responses, it is expected that meprobamate will prove of particular value in the treatment of these conditions.

Berger, F. M., *Annals of the New York Academy of Sciences*, 67: May, 1957.

**Medical Abstracts*, August, 1957.

INFECTIOUS DISEASES — NOVA SCOTIA
Reported Summary for the month of March, 1958

Diseases	NOVA SCOTIA				CANADA	
	1958		1957		1957	1958
	Cases	Deaths	Cases	Deaths	Cases	Cases
Brucellosis	0	0	0	0	0	0
Diarrhoea of Newborn	0	0	0	0	0	0
Diphtheria	0	0	0	0	0	0
Encephalomyelitis Infectious	0	0	0	0	1	3
Food Poisoning	0	0	0	0	0	0
Gastroenteritis (1) Infectious	112	1	37	5	83	59
Hepatitis—Infectious Including Serum Hepatitis	33	0	35	0	not reported	
Impetigo of Newborn	0	0	0	0	0	0
Influenza (if unusual number of cases)	196	3	188	3	496	579
Meningococcal Meningitis and Meningococemia	0	1	0	0	30	23
Pertussis	49	0	48	0	800	538
Poliomyelitis (paralytic) non-paralytic)	0 0	0 0	0 0	0 0	1 *(2) 1	3 0
Scarlet Fever and Streptococcal Sore Throat	459	0	269	1	1121	1324
Tuberculosis (pulmonary) (non-pulmonary)	5 0	0 0	3 1	0 0	681 38	605 55
Typhoid and Paratyphoid Fever	0	0	0	0	26	34
Venereal Disease (syphilis) (gonorrhoea)	2 15	0 0	8 58	0 0	254 1277	203 1304
Anthrax	0	0	0	0	0	0
Cholera	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0
Rabies	0	0	0	0	0	0
Smallpox	0	0	0	0	0	0
Tetanus	0	0	0	0	0	0
Trichinosis	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0
Other rare diseases	0	0	0	0	0	0
Other (if unusual number of cases)	0	0	0	0	0	0

(1) amoebic and bacillary dysentery and salmonellosis.

*unspecified type

REMARKS: The above death from gastroenteritis was an infant death and occurred in hospital.

In addition to the above list of diseases and deaths, there were 378 cases of measles reported during the month of March and one death from this disease. This was a child age one year and occurred at home.

Secretary's Page

91ST ANNUAL MEETING, CANADIAN MEDICAL ASSOCIATION

This meeting will be held in Halifax, June 16th to 20th inclusive. **The preliminary programme was published in the C.M.A.J. of April 1, 1958.** This outlines the subjects on closed circuit coloured T.V. which will be viewed on Sunday night, Monday, Tuesday and Wednesday morning. The General Council of C.M.A. meets on Monday and Tuesday. The scientific programme begins on Wednesday and continues through Thursday and Friday.

The social programme is well planned. The luncheon each day will be addressed by prominent figures. Each evening is taken up with social functions. The Ladies programme has been well developed.

Remember, please, the Reunion of Graduates of the Dalhousie Medical School is scheduled for Thursday, June 19th, at 6.30 p.m.

The Programme Committee had a meeting in Halifax on May 7th. All indications are that it will be a most successful meeting. Plan to come along.

Chiropractic Bill (No. 33-1958) is given "Hoist"

Since the last report on this subject, the public hearing before the Law Amendments Committee was held on April 9th in the Red Chamber. There were approximately one hundred people present, including thirty doctors, of whom several were from points in the province. The hearing started at 8.00 p.m. with a presentation in opposition to the Bill by the solicitor for the Provincial Medical Board. This was followed by a presentation by the solicitor of The Medical Society of Nova Scotia presenting, from the view-point of The Medical Society, legal aspects for opposition. Doctor A. L. Murphy then presented the reasons from the clinical view-point for opposing the Bill.

Those favouring the Bill were then heard. Two solicitors made presentation, followed by two submissions by chiropractors which had to do principally with X-ray. Following this, some others who wished to speak were heard by the Committee.

The hearing was closed at about 11.00 p.m. with the Committee taking the matter under advisement.

The recommendation of the Committee on Law Amendments that Bill 33 be given a six months hoist was made known on Wednesday, April 23rd and was reported to the House on April 24th. Again, a debate of approximately two hours took place. The recommendation of the Committee was supported by a vote of 29 for and 10 against.

It is apparent that medicine has succeeded in making clear to the members of the Legislative Assembly the danger to the public through chiropractic in the fields of diagnosis (including X-ray) and treatment.

Maternal and Perinatal Mortality

The Committee on Maternal and Child Hygiene, Chairman Doctor M. G. Tompkins, Jr., has been successful in obtaining a Federal Provincial Health grant for this study. The sponsoring agency is The Medical Society of Nova Scotia.

The proposed study was completely reviewed and received approval by The Medical Society of Nova Scotia at the Annual Meeting in August, 1957.

The study of maternal mortality will be province wide. Perinatal mortality (deaths of infants up to one month of age) will be restricted to the Grace Maternity Hospital, the Children's Hospital and the Halifax Infirmary.

A meeting of the Nucleus Committee and those having direct responsibilities was held on Monday, May 5th. The headquarters for the study will be an office in the Grace Maternity Hospital.

C.M.A. Meeting—Edinburgh—1959

A combined meeting of the Canadian Medical and British Medical Associations will be held in Edinburgh July 18-25th, 1959. Notices and application forms have appeared in the C.M.A.J. from time to time over the past year.

The Secretary has received a letter from W. O. McDonald, M.D., of Charlottetown, which states that Maritime Central Airways will provide a chartered flight which would accommodate 65 passengers. Will any physician who is interested in this method of transportation please communicate with Doctor W. O. McDonald.

C. J. W. B.

APPOINTMENTS AND PROMOTIONS MEDICAL STAFF, VICTORIA GENERAL HOSPITAL

On nomination by the University and recommendation of the Credentials and Membership Committee, the Board of Commissioners has made the following appointments effective March 29, 1958:

Doctor H. A. MacDonald — Assistant Physician

Doctor J. O. Godden — Assistant Physician

On recommendation of the Heads of the Departments concerned and of the Credentials and Membership Committee, the Board of Commissioners has made the following appointments and promotions, effective March 29, 1958:

Appointments

Doctor M. J. Lydon — Junior Fellow in Medicine
 Doctor F. D. Kemper — Teaching Fellow in Medicine
 Doctor R. H. Roberts — Teaching Fellow in Medicine
 Doctor P. C. Gordon — Clinic Assistant in Medicine

Promotions

Doctor E. F. Ross — Chief of Surgical Service "A"
 Doctor J. McD. Corston — Associate Gynaecologist
 Doctor I. A. Perlin — Associate Gynaecologist
 Doctor B. F. Miller — Associate Surgeon (Ortho)
 Doctor H. C. Read — Associate Physician
 Doctor W. A. Murray — Associate Physician
 Doctor W. I. Morse — Associate Physician
 Doctor H. I. Goldberg — Associate Physician
 Doctor Walter Leslie — Associate Physician
 Doctor J. A. Hammerling — Associate Ophthalmologist and Otolaryngologist

Correspondence

The Managing Editor
The Nova Scotia Medical Bulletin
Dalhousie Public Health Clinic
University Avenue, Halifax, N. S.

**Re: Extension of Public Laboratory Services under
Laboratory & Radiological Services Grant.**

The Minister of Public Health has announced that effective May 1/58 Blood Sugar Estimations conducted on hospital in-patients will be performed "free of charge" to the patient concerned, when the examination is conducted in laboratories participating in the Laboratory & Radiological Services Federal Provincial Health Grant Programme. A similar provision has been in effect for some time with regards to out-patients. The fee for the collection of the specimen will as in the past be chargeable to the patient concerned.

Participation in this Grant Programme is open to all Hospital Laboratories in the province supplying the Services of a Registered or equivalently qualified technician. The hospital is required to operate its laboratory under an agreement with the Department of Public Health wherever certain regulations are made ensuring that a high standard of services is supplied to the patient at a price slightly above cost.

The Department of Public Health with the limited funds available for this purpose has in this case considered the heavy financial burden imposed upon Diabetics and has taken this means to attempt to alleviate a portion of it. The step was recommended by the Advisory Committee on Laboratory Services of the Division of Laboratory & Radiological Services.

O. C. MacINTOSH, M.D.
DIRECTOR OF LABORATORY & RADIOLOGICAL SERVICES

April 14/58.

Society Meetings

LUNENBURG-QUEENS MEDICAL SOCIETY

The annual meeting of the Lunenburg-Queens Medical Society was held February 12, 1958 at the Fairview Hotel, Bridgewater. Members present were: Doctor S. B. Bird, President, in the chair, Doctors W. A. Hewat, G. D. Donaldson, H. MacKinnon, S. Marcus, A. L. Cunningham, D. A. Campbell, F. G. Bell, D. C. P. Cantelope, H. A. Fraser, A. A. James, R. G. A. Wood, L. A. MacLeod, J. C. Wickwire, C. J. W. Beckwith, G. B. Shaw and F. W. Prince.

The recommendations of the Lunenburg-Queens Medical Society committee appointed to study the recommendations of a Special Committee of the Executive of The Medical Society of Nova Scotia to study the annual meeting were accepted. i.e.:—

- (1) The Society continue to rent exhibit space to pharmaceutical houses. In addition, the establishing of scientific exhibits should be encouraged.
- (2) The annual meeting of the Nova Scotia Branch of the Canadian Medical Association be held during the last two weeks of May—following Dalhousie closing exercises.
- (3) Financing of the annual meeting be provided for from funds established for this purpose, largely in the form of a registration fee.
- (4) The practice of having branch societies act as host be encouraged, it being their responsibility to determine the location of the annual meeting. This committee realizes that there are few places in Nova Scotia that are at present able to accommodate The Medical Society of Nova Scotia, during May, therefore we suggest that the meetings be held in the City of Halifax.
- (5) The annual meeting of The Society for 1958 be a one day business session, to be held in Halifax at the time of the Refresher Course.

Dr. Hewat suggested that the Branch Societies be taxed for the cost of the annual meeting.

Dr. Beckwith explained that the **special committee** planning the annual meeting had recommended that the cost of these meetings should be met by (1) Registration fee of not more than \$15.00, (2) Rental of space to pharmaceutical houses.

The host Branch Society was to present a budget for the meeting and they would be expected to pay to The Medical Society of Nova Scotia only the amount that was spent in excess of this budget.

Should a dividend be realized this amount was to be returned to the Provincial Society.

Dr. Beckwith suggested that we consider appointing our executive member also as a director in Maritime Medical Care.

Dr. Wood gave his report as the executive member from the Lunenburg-Queens Medical Society. He stated that his report had been largely covered by Dr. Beckwith's remarks.

Mention was made of pro-rating of medical accounts by D.V.A. Several members voiced their dissatisfaction. It was pointed out that the arrangement had been accepted under protest.

The report of the Nominating Committee was then presented, which was as follows:

President—Dr. D. A. Campbell, New Ross

Vice-President—Dr. J. B. Crowe, New Germany

2nd. Vice-President—Dr. F. W. Prince, Bridgewater

Secretary-Treasurer—Dr. G. D. Donaldson, Mahone Bay

Executive Lunenburg-Queens Medical Society—Dr. L. A. MacLeod,
Liverpool and Dr. Denton Cardeau, Mahone Bay

Executive The Medical Society of Nova Scotia—Dr. R. G. A. Wood,
Lunenburg; alternate Dr. S. B. Bird, Liverpool.

Nominating Committee The Medical Society of Nova Scotia—Dr. W. A.
Hewat, Lunenburg; alternate Dr. S. Marcus, Bridgewater.

Representative to Board of Directors M.M.C.—Dr. W. A. Hewat, Lunen-
burg.

Pertinent remarks by Dr. Beckwith covered Society business including—
New schedule of fees; Membership & Chiropractors.

Remarks by Doctor Shaw brought members up to date on M.M.C.

A motion by Dr. Marcus, seconded by Dr. Hewat, that the annual fee
of the Lunenburg-Queens Medical Society for 1958 be \$5.00, not to include the
cost of dinners, etc., members to be billed by the Secretary was carried

J. C. Wickwire, M.D.,
Secretary-Treasurer.

COLCHESTER-EAST HANTS MEDICAL SOCIETY

A supper meeting of the Colchester-East Hants Medical Society was held
at the Colchester County Hospital on January 29, 1958. The President,
Doctor J. A. Muir, was in the chair.

The minutes of the last meeting were read and approved. Doctor T. C. C.
Sodero tendered his resignation as the Secretary-Treasurer. This was accepted
on the motion of Doctors Ross and Curtis. Doctor McKean was nominated
by Doctors Reid and MacKenzie. Doctor Little moved that nominations
cease. This motion was carried.

Doctor Sodero reported that he had forwarded a list of membership in
our Society to Doctor Beckwith.

Doctor Little reported as chairman of the committee to study the Work-
men's Compensation Act. Their recommendations—1. That the Workmen's
Compensation Board adopt The Medical Society of Nova Scotia Schedule of
Fees. 2. That a period of one year be allowed to submission of doctors'
accounts. 3. That copies of consultants' reports be sent to the referring
doctor.

His report was adopted.

On motion of Doctor MacKenzie the following names are submitted to
The Medical Society of Nova Scotia for consideration as Senior Membership—
Doctors H. B. Havey, S. G. MacKenzie, Sr., R. A. MacLellan and Roderick
MacKinnon.

On motion of Doctors Curtis and MacKenzie, the following were accepted
as new members—Doctors Moore, Coyle, Heffez, Bell and Stewart.

Doctor Sodero read a letter from Doctor Beckwith in reference to our
constitution and by-laws. The Secretary was instructed to report—our
constitution being dated 1932.

Doctor Sodero read a resolution from the Halifax Medical Society in reference to certain aspects of Bill 390, objecting to the hospitals supplying doctors' services and pressing for representation of The Medical Society of Nova Scotia on the planning and administration commission for hospital services. It was moved by Doctor Little and seconded by Doctor MacKenzie that this Society support the stand of the Halifax Medical Society. Carried.

Doctor Sodero read a letter from Doctor Beckwith requesting that a committee be appointed to study the question of The Medical Society of Nova Scotia's Annual Meeting. The Secretary was appointed a committee to study and report on this matter.

A letter was read from the Defence Medical Society inviting interested members to join. This was ordered posted.

A letter was read in reference to a film entitled "Charge It." This was ordered to be filed.

Doctor MacKenzie gave a report on a recent meeting of the Executive of The Medical Society of Nova Scotia.

Doctor MacKenzie gave notice of motion that at the next meeting of the Colchester-East Hants Medical Society he would move that the Colchester-East Hants Medical Society in conjunction with the Hospital Medical Staff meet each Wednesday at 12.30.

It was moved, seconded and passed that our director to Maritime Medical Care be instructed to see that Maritime Medical Care subscription rates be increased so that the revised schedule of fees can be adopted and paid in full without proration. A long discussion of Maritime Medical Care fees and policies followed.

The President, Doctor Muir, expressed Happy Birthday Wishes to Doctor MacLellan, who responded with thanks.

The meeting was adjourned on motion of Doctor Reid.

The following members were present—Doctors Reid, Sodero, Ross, Royal, McKean, Bell, MacInnis, Lavers, Heffez, Moore, Muir, MacKenzie, MacLellan, Curtis, MacDonald and Coyle.

H. R. McKean,
Secretary-Treasurer.

Antigonish-Guysborough Medical Society

A regular meeting of the Antigonish-Guysborough Branch of The Medical Society of Nova Scotia was held in the board room of St. Martha's Hospital on Sunday, April 13th, 1958, with the President, Doctor R. C. Griffin, in the chair.

Present were: Doctor C. J. W. Beckwith, Doctor R. E. Price, a visiting radiologist from the Victoria General Hospital, Doctors R. C. Griffin, C. N. MacIntosh, O. C. MacIntosh, T. B. Murphy, A. E. Dunphy, T. W. Gorman, J. E. MacDonell, R. H. Fraser, A. J. Griffiths, S. B. Donigiewicz, G. L. Silver, Doctor and Mrs. Rolf Sers, A. Elmik, W. Guzdziol, P. D. Ferguson, J. K. M. McKay of Inverness and J. A. MacCormick.

The minutes of the last regular meeting were read and adopted.

The following business arose from the minutes:

- (1) It was reported that Doctor T. B. Murphy had been appointed to the

Board of Directors of Maritime Medical Care Incorporated at a special meeting held briefly after a recent staff meeting, and that this is for a two-year term. No meetings had been called to date.

(2) The Secretary reported on the present results of an effort to re-organize the Eastern Counties Branch Society to include Inverness and Richmond Counties with Antigonish and Guysborough. Letters had been sent to all of the known doctors in the Cape Breton counties asking for their views. Letters received were read. Doctor H. A. Ratchford of Cheticamp favoured such a move and regretted being unable to attend this meeting. Doctor G. R. Deveau of Arichat did not express an opinion and was unable to attend this meeting. Doctor L. P. Doucette of Cheticamp thought the idea an excellent one but that the distance from Cheticamp was too great so that he could more readily go to Sydney. No other replies were received. Discussion then followed. Doctor McKay of Inverness indicated that he favours such a reorganization and thought that Doctors A. Risk and E. E. Henderson of Inverness were in accord. He understood that Doctor W. MacIsaac of Margaree Forks favoured attending Cape Breton branch in Sydney. The point was brought up that there would be some advantage in having branch areas line up with hospital regional areas as planned by the National Hospital Insurance Plan. Further discussion ensued during which it became apparent that re-organization at the present moment is unlikely to be feasible. It was then moved by Doctor O. C. MacIntosh, seconded by Doctor A. J. Griffiths that the Antigonish-Guysborough Branch make available full membership in this association to any regularly licensed medical practitioner in Inverness and Richmond Counties who should care to apply. It was generally agreed that this was constitutional and would provide an excellent beginning towards re-organizing the Eastern Counties Branch.

(3) Next the brief submitted to the Advisory Committee of the Hospital Planning Commission from this Branch Society was read. The outcome of its various suggestions were discussed by Doctor Beckwith and in general most of the points were well received and adopted. However, the use of deterrent charges was dropped from the brief of the Advisory Committee. Considerable discussion on this matter followed, Doctor Guzdziol feeling very strongly that a deterrent fee is desirable. Doctor O. C. MacIntosh pointed out that as the Act now stands it would not be feasible for hospitals to make a serious effort to collect such charges. No action was taken.

Report of Committees

(1) The Treasurer reported briefly that after paying expenses of the last meeting our bank balance is now \$6.87.

(2) Doctor MacCormick, local member to the Executive Committee of The Medical Society of Nova Scotia, reported on the meeting held in Halifax on January 27, 1958. Explaining that the minutes would be duly reported in the Medical Bulletin, he wished only to bring to the attention of the local members certain items of common interest. These comprised the following:

A. The report of the Committee on Economics with respect to the Welfare Contract, and the D.V.A. fee schedule, and the executive comments on these.

B. The report of the Committee on Fees and the fact that the Executive Committee has gone on record as being opposed to the principle of pro-ration of accounts.

C. The report of the Committee on Cancer with particular reference to a proposed refresher course on cancer to be held in Nova Scotia. At this point Doctor A. E. Dunphy was nominated as the local corresponding member to the Committee on Cancer.

D. The letter from Blaker, Hearn and Company concerning enquiries being made chiefly by the Cape Breton Branch about premium costs of the group disability insurance plan if waiting time for accident or sickness were increased to thirty days. The object of this is to seek lower rates. It was laid down by the Company that any such proposed alteration of the terms of the contract would have to be acceptable to all members. In the ensuing discussion, this seemed very likely to happen and no further discussion was required.

E. The report of the Society of Crippled Children re Mobile Clinics for information only.

There were no other committee reports.

The only new correspondence was a letter from Doctor Beckwith enquiring about the prevalence of the use of so-called "goofballs" in this area. Doctor Beckwith explained this term as referring to the use of barbituates by addicts, mainly juvenile, as encountered recently in the Halifax area. Brief discussion followed which indicated that this problem does not appear to have hit this area.

The question of moving the date of the annual meeting from December to June for the purpose of electing new officers prior to the annual meeting of The Medical Society of Nova Scotia was brought up. After some discussion it was regularly moved and seconded that the annual meeting be held in June. Carried.

Addenda

Under 2A: Doctor Sers pointed out that Mothers' Allowance benefits continue up to age 18 years for children attending school but that medical benefits for the same are discontinued on reaching age 16 years. This is considered unfair and he wished the matter to be brought to the attention of the Committee on Economics of The Medical Society of Nova Scotia.

Doctor Guzdziol brought up the problem of payment of pre-natal visits by Maritime Medical Care when the patient sees more than one doctor or may be confined elsewhere as so often happens. He requested that Maritime Medical Care be asked to consider a solution to this problem, and that the Committee on Fees also be approached on the matter.

Doctor Ferguson felt that Maritime Medical Care recipients are not sufficiently instructed regarding benefits allowed by the plan.

It was generally felt by the meeting that the present C.N.R. contracts were poorly handled and very confusing to patient and doctor.

There being no new business, the meeting adjourned, whereupon the members attended a very enjoyable dinner provided by the hospital authorities.

J. A. MACCORMICK, M.D.
Secretary-Treasurer.

Personal Interest Notes

Dr. Lloyd B. MacPherson, M.B.E., has been appointed Assistant Dean of Medicine at Dalhousie University. This newly created position was announced by President A. E. Kerr and was the recommendation of the medical educators, representing both Canadian and American Medical Colleges, and the two National Medical associations.

This group of medical educators made favourable comments concerning the "high morale and dedication to teaching and research and the unique loyalty to the institution, and said that the region should be a matter of great pride to the Faculty of Medicine, the University and to the Atlantic Provinces." This committee emphasized that the complexity of a modern medical centre imposes diverse and heavy responsibilities upon the Dean, and they recommended an assistant be appointed to Dean C. B. Stewart to relieve him of part of the burden of his administrative duties.

The first Assistant Dean, Dr. Lloyd B. MacPherson has been a member of the Department of Biochemistry of Dalhousie University since 1952, with the present rank of Associate Professor. He will continue his research and teaching in that Department as well as serving on a part-time basis as Assistant Dean.

Dr. MacPherson is a Nova Scotian, son of Mr. and Mrs. J. A. MacPherson of Prince's Lodge. He is married and has three children. His wife is the former Miss Catherine Elizabeth Jane Wilson of Toronto.

Dr. MacPherson obtained his B. Sc. at Acadia University and proceeded to graduate study in Biochemistry in the Department of Medical Research at the University of Toronto, where he was associated with the late Sir Frederick Banting.

During World War II he spent six years in the Canadian Army overseas in command of the Canadian Chemical Warfare Laboratory. He was appointed a member of the Order of the British Empire in 1944 in recognition of outstanding services. Following the War he completed his training in the University of Toronto and was awarded the degree of Ph.D. in Pathological Chemistry in 1948.

Entrance scholarships into the Faculty of Medicine of Dalhousie University have been awarded to John F. Hamm, James G. Holland, David C. Murray, Marven I. Brook, Morton L. Brown and David W. J. Gough.

Two scholarships of \$500 are awarded to residents of the mainland of Nova Scotia. One of these has been awarded to John F. Hamm, a student of King's College University in Halifax and the son of Mr. and Mrs. G. W. Hamm of New Glasgow. Mr. Hamm has attained an excellent academic record and will be granted the B.Sc. degree in May.

The second scholarship for Nova Scotia has been divided between two students of high standing; James G. Holland, son of Doctor and Mrs. C. W. Holland of Halifax, and David C. Murray, son of Doctor and Mrs. J. Carson Murray of Springhill. Mr. Holland received his early education at Queen Elizabeth High School in Halifax, and Dalhousie University, where he will receive an honors B.Sc. degree in May. He is a talented musician, a member of the Glee Club and of the University Naval Training Division. On admission to Dalhousie University Mr. Holland was awarded a four-entrance

scholarship and at the end of his first year he was awarded the George H. Campbell Memorial Scholarship. Mr. Murray has attained high scholastic standing in this three years of pre-medical studies at St. Francis Xavier University.

One scholarship, awarded to a resident of Cape Breton Island, goes to Mervin I. Brook, son of Mrs. Abraham Brook and the late Mr. Brook of Sydney. He obtained his early education at Sydney Academy, going to Dalhousie University on an entrance scholarship in 1956. He also was awarded a University scholarship in 1957.

On April 16, 1958, the community of Bass River gathered at the Community Hall to welcome Doctor and Mrs. J. Wilson and family to Bass River. Rev. W. K. MacKay gave the address of welcome to the new family. Doctor Wilson expressed his thanks for the welcome they had received.

Mr. Gordon Gray, President of John Wyeth and Brother (Canada) Limited, has recently forwarded a cheque to the Department of Psychiatry of Dalhousie University for the amount of \$5,000. This represents the third instalment of a grant of \$15,000 which has allowed the Department to assign a psychiatrist for approximately half time to the medical wards of the Victoria General Hospital and to engage in a number of research projects in the field of psychosomatic medicine.

Doctors R. O. Jones and S. Hirsch will be attending the 14th Annual Meeting of the American Psychiatric Association in San Francisco from May 12th to 16th. Doctor and Mrs. Jones will then be proceeding to a Regional Meeting of the American Psychiatric Association in Hawaii, May 18th to 23rd.

The Editor of the Bulletin regrets that acknowledgement was not made to "Post-Graduate Medicine" for permission to reprint the article "Hemorrhage from the Upper Part of the Gastrointestinal Tract" by Doctor R. C. Dickson which appeared in the April, 1958 issue of the Nova Scotia Medical Bulletin.

Obituary

Dr. Walter Reginald Dickie, aged 68, retired Digby physician and surgeon, lost his life as a result of a fire which destroyed his fishing cabin at Sandy Bottom Lake on April 12th.

Doctor Dickie was born in Stewiacke and was a son of the late Mr. and Mrs. Alfred Dickie. He graduated from Dalhousie School of Medicine in 1914. His first practice was in Barton. In 1927 he moved to Digby where he took over the practice of Doctor Roberts, and in this town he remained to practise until his retirement in 1950.

Doctor Dickie was always interested in community and school affairs in the Town of Digby. He was partly responsible for the establishment of the Digby Regional High School. He was one of the directors of the Digby General Hospital, and for many years was the head of the X-ray department of this hospital. Doctor Dickie was a member of the first Kiwanis Club of Digby and past master of the Masonic Lodge.

Doctor Dickie is survived by his two sons, Hugh and Alfred of Digby, and one daughter Phyllis (Mrs. (Dr.) Claude Keays) of Halifax. His wife predeceased him four years ago as did a son, Doctor Dudley Dickie of Digby.

The Bulletin extends sympathy to Doctor Hugh MacKinnon of Bridgewater on the death of his brother, Rev. A. D. MacKinnon at the Spicer Nursing Home, Berwick, on April 19th, following an illness of several months, at the age of 81.