

Malignant Growths of the Larynx

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CARCINOMA in the laryngeal region includes new growths of malignant character arising in the epiglottis, the aryepiglottic folds, arytenoids, ventricular bands, vocal cords, the subglottic area and the postericoid area. This is due to the anatomical configuration of the larynx which extends from the tip of the epiglottis to the inferior margin of the cricoid. All of the above named structures are found in this area.

Etiology

These new growths may be conveniently divided into two types, extrinsic and intrinsic, depending on the location. Growths arising on the vocal cords, ventricles and in the subglottic area are classified as Ca. of the intrinsic larynx, while those arising from the superior surface of the ventricular folds, the epiglottis and the postericoid region are extrinsic. Carcinoma of the larynx is found predominantly in middle and old aged males and the incidence of extrinsic and intrinsic carcinoma is approximately the same. Laryngeal malignancy comprises about 2% of all malignant tumors of the human body.

The cause of these new growths is unknown. There is no apparent relation to abuse of the voice, excessive smoking, or local infections of the nose or mouth, or the presence of lues. Benign growths seldom become malignant, except in cases of leukokeratosis which may be regarded as precancerous.

Pathology

Epidermoid or squamous carcinoma is the predominant type affecting the larynx, because the most common site of origin of intrinsic carcinoma is in the vocal cord. Occasionally one sees cylindrical cell carcinoma or adero-carcinoma. These growths behave similarly to squamous carcinoma of the pharynx or the skin. There is infiltration of the deeper structures, unbridled cell division and growth spreading by continuity and along lymphatic channels. There are usually well differentiated cell types with pearl formation and hornification. Most tumors are grade 1 or 2 in Border scheme, and thus radioresistant. Metastasis from intrinsic carcinoma is very late, due to the sparsity of lymphatic drainage from the vocal cords and subglottic region. In extrinsic forms we have the opposite picture; lymphatic spread to the cervical lymph nodes is fast and early. The glands first implicated lie along the internal jugular vein in growths above the vocal cords, while in growths below the cords, the lymphatics drain into the pre-laryngeal and pre-tracheal nodes, thence to the deep cervical and mediastinal nodes.

Symptoms, Morbid Anatomy and Clinical Course Carcinoma of the Intrinsic Larynx

The first and almost invariable symptom is hoarseness in all early stages of cord involvement disease. As the progress of this is slow, the hoarseness may persist for many months, or even 1-3 years before dyspnoea is complained of in untreated cases. As the growth infiltrates the cords, phonation becomes increasingly difficult leading to aphonia. Should the growth fungate rather than infiltrate, husky phonation with increasing dyspnoea shows narrowing of the glottis is taking place. Eventually the malignant process may perforate

the laryngeal cartilage or the cricothyroid membrane, invading the soft tissues of the neck. Metastasis are late in such cases.

On examination of the larynx in an early case, one usually sees a granular papillary growth or a flat rather excavated ulcer with raised borders, situated on the face or upper border of the cord, and usually in the anterior $2/3$ of the cord. New growths are seldom seen in the posterior $1/3$.

The cord usually moves freely in the early stages. As disease progresses the growth extends deeply causing fixation of the cord. There is extension in many cases to the anterior commissure and the opposite cord, and into the ventricle and ventricular band. Metastasis is late, and the diseases tend to be well localized until death. In these cases pain is unfortunately a late symptom and occurs chiefly when ulceration has taken place. There may be local discomfort following smoking and fatigue. If the malignancy is subglottic we often find a muffled voice and dysphonia rather than actual hoarseness. Pain is found when the disease has extended far enough to involve the arytenoids and the laryngeal aperture. This usually means ulceration has taken place. Pain is chiefly on swallowing, but it may appear first as a reflex otalgia. Dyspnoea is late. By the time this appears there has been marked infiltration and subglottic edema.

Extrinsic Carcinoma

In these cases the symptoms are often varied and misleading. Hoarseness is a late symptom. Frequently the patient complains of pain or discomfort. This becomes worse as time goes on, the patient has attacks of coughing and the infiltration around the laryngeal aperture causes dysphagia. Hoarseness is late and occurs only when the vocal cords become infiltrated. A lump in the neck is the next common complaint. This will be found to be an enlarged cervical lymph node. Usually in the region of the carotid bifurcation. In about 20% of cases this will be found to be the initial symptom. Ulceration with marked pain is early in these cases. Dysphagia, hemorrhage, aphonia, dyspnoea and cough are seen in late cases. Metastasis are early, and progress quickly into the cervical and mediastinal glands. Pressure on the nearby cervical nerve trunks is responsible for the marked pain. On examination extrinsic carcinoma appears as a bulky often fungating tumor of the epiglottis aryepiglottic folds, the arytenoids or in the postericoid area. Occasionally where there is marked infiltration, an excavated ulcer will be seen. Edema is almost always present, and may obstruct the view, concealing the actual lesion. This is especially evident where the initial lesion is on the outer or posterior portion of the arytenoids or in the postericoid region. In such cases examination by direct laryngoscopy is almost imperative to enable one to perform an adequate examination. As the growth increases, there is marked infiltration of the local structures. Dyspnoea and dysphagia increase with bulky and painful metastasis.

Diagnosis

There are three important symptoms to consider. Hoarseness in intrinsic carcinoma and either persistent pain and discomfort on swallowing or the appearance of cervical metastasis in extrinsic carcinoma. Even considering these symptoms, often so well marked, is there any other form of malignancy in which avoidable delay is readily demonstrated. Records of a large number of cases have been analyzed, and it has been shown that in most cases, adequate examination has not been performed. The patient has been given a gargle or

some other form of treatment as assured of nothing seriously wrong. However persistence of symptoms forces the patient to seek further relief, and in many cases too late.

It is almost imperative to examine each case thoroughly, and if not satisfactory to re-examine each case at suitable intervals until a diagnosis can be made. A persistent hoarseness over two weeks especially in the older age groups should be a sufficient warning to any practitioner that the case may be one of carcinoma, and it is up to the practitioner to prove otherwise by any or all methods available. Even more so must he be on guard when the patient complains of mild symptoms of minimal dysphagia or a lump in his neck. Then a thorough and painstaking search must be made to locate the lesion. Like all other forms of malignancy time is an important factor in diagnosis and treatment. It is impossible to put too much emphasis on this matter of early diagnosis and treatment. Also a word of warning re biopsies. Not every biopsy will give a positive result for carcinoma. The physician must use common sense and the results of his own and experience of others in doubtful cases. Remember this, regard every Ca. of the larynx as a dangerous malignant growth.

Differential Diagnosis

Numerous lesions may stimulate carcinoma clinically. These are benign mucus polyps, pachyderma, papilloma, tuberculosis, and syphilis. The most experienced practitioner may often be in doubt as to the exact nature of the lesion, and unable to give a diagnosis in spite of the elaborate descriptions published, and his personal experience. Biopsy and microscopic examination of the specimen is by far the best method of obtaining an accurate diagnosis. This may be done by using a special biopsy forcep guided by the laryngeal mirror in extrinsic cases, but in intrinsic cases, direct laryngoscopy is usually required.

Treatment

In cases of carcinoma of the larynx the aim is to preserve if possible the power of speech, and at the same time if possible cure the malignancy. It is only natural that the patient will react strongly against any surgical procedure that will interfere with vocal function, and any alternative will be seized upon. The power of speech is precious beyond words, and the preservation of such a power demands serious consideration. Thus the physician has two methods of treatment available.

Radiotherapy

Fractionated radiotherapy and in some cases implantation of radon seeds have produced some good results, but statistics show that surgery will produce a higher percentage of cure both extrinsic and intrinsic carcinoma, provided that the lesion is operable. Surgery in the form of partial or total laryngectomy is the method of choice from the standpoint of effecting a cure and of saving life. Unfortunately only about 30% of extrinsic carcinomas are seen in the operable stage so that for the remainder radiation therapy is the only alternative. A small but definite number of cures have resulted. In brief the indications for treatment of carcinoma of the larynx are as follows: Early intrinsic carcinoma,—partial laryngectomy through laryngofissure. Moderately advanced intrinsic Ca.—Total laryngectomy. Advanced extrinsic carcinoma, Total laryngectomy. In-operable cases, Radiation therapy. In cases of recurrence, surgery followed by radiation. This will also be indicated

where metastasis have formed. Cervical metastasis is not a frequent problem in intrinsic carcinoma, but may occur at a later period following surgery. In such cases dissection of the glands will give relief. Where metastasis occurs in inoperable cases of extrinsic carcinoma of the larynx, a program of radiation should be employed, and the treatment directed towards the metastatic as well as the primary lesion. To summarize early surgery is the best that can be offered, with radiation therapy as an adjuvant. Surgery must be adequate. Half measures are of little use, and may complicate the case later. Also diagnosis in the early stages should be the aim of all those who practice medicine. When in doubt re-examine the case, and do not hesitate in seeking the opinion of a consultant.

Prognosis

The prognosis of laryngeal carcinoma is influenced by a number of factors, the most important of which the size of the growth and presence or absence of metastasis in the cervical lymph nodes. The importance of this can be demonstrated by the fact that when the tumor on a vocal cord measures 1 cm. or less in diameter, a five year cure of 95% of cases may be obtained. The rate of cure in large lesions and any lesion of the extrinsic part of the larynx will be definitely lower.

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and 18 or 1.3% of 1,314, known the contacts
 and 35 or 1.3% of 2,663. Apparently Normal Population
 and 9 or 2.9% of 331 referred D P H C

Of the 258 cases placed on record as new in 1949 the family physicians are credited with 98 or 38% of the total—the highest proportion of any of the case finding agencies.

Now, if I may make another point you will notice in the table that of those referred by physicians 39.3% were minimal and 19.6% were far advanced; whereas in mass radiography 79.2% were minimal and none far advanced.

The inference is obvious—patients go to physicians when they are not well. Early tuberculosis, developing as it does with few or no symptoms, must always be excluded as a cause of ill health. The most accurate method of excluding pulmonary tuberculosis is by X-ray and physicians are again urged to refer all patients for X-ray of the chest, not on the basis of suspicion, not on the basis of symptomatology, but as a routine procedure, to exclude pulmonary tuberculosis as at the time of examination.

Before passing on there is another important factor in case finding. Tuberculosis meningitis is accountable for approximately 50% of the tuberculosis deaths not due to pulmonary tuberculosis. Deaths from tuberculosis meningitis under the age of five are due specifically to close association between the child and an open case of tuberculosis. As such, this cause of death can be removed, as can the cause of all primary tuberculosis in children, if tuberculosis is excluded in the adults of the family, particularly the father and the mother. Ill health for the adult, and catastrophe for the child will be prevented if the expectant mother and father are X-rayed during each pregnancy. The family physician and obstetrician can do much for parents and child by excluding the presence of pulmonary tuberculosis in the parents.

The value of X-ray of the chest has shown itself in other spheres. Routine admission X-rays of adults has brought to attention unsuspected pulmonary pathology which has not only been of benefit to the individual but also has been to the protection of the personnel of the hospital. The discovery of non-tuberculosis pathology such as enlarged and congenital hearts has made no small contribution to the benefit of the individual.

Finally, age is to be forgotten when considering tuberculosis. Sixty per cent of all deaths from tuberculosis in the City of Halifax were over the age of forty and 83% the male deaths. Experience with mass radiography indicates that the positive case according to age are much more numerous in the older age groups. Add to this that these older people are most frequently chronics and we have the analogy of the typhoid carrier. These older people with unknown tuberculosis are in fact the tuberculosis carriers of the community.

Tuberculin Status. It is generally conceded to-day that knowledge of the tuberculin status of the individual is important for the following reasons:

(1) The differentiation of primary and reinfection tuberculosis: The terms childhood tuberculosis and adult tuberculosis have had to be revised since recognition that the pathogenesis depends not on age but on the tuberculin status. The characteristically benign, non-progressive and spontaneously resolving primary tuberculosis occurs as the first experience with tuberculosis infection of the lungs, whether the age be one year or forty years. Whereas the characteristically progressive, destructive and lethal pulmonary tuberculosis occurs in a person already infected and who has a positive tuberculin reaction.

(2) In exposed groups, such as known contacts and the occupational hazard group of general nursing, it is generally agreed that tuberculosis will develop about four times as frequently in the negative tuberculin reactor as in the positive. From the standpoint of preventive medicine, these negative reacting individuals should be protected by the development of a positive tuberculin reaction through the use of B. C. G. vaccine.

(3) The tuberculin status in children is of value as an index for search for the source of tuberculosis infection for the positive tuberculin reaction. Thus admissions to the Children's Hospital are tuberculin tested—positive reactors are X-rayed, but in addition to this, the parents and other adult members of the family are requested to report for X-ray. The same principle is followed with grades I and VII in the schools. The procedure does not yield 100% results, but it does uncover unknown and unsuspected tuberculosis.

Education. Public education has been erroneous up to a point. For years the so-called symptoms of tuberculosis, cough, sputum, loss of weight and strength, etc. were drilled into the public mind. Then the X-ray was used to confirm the diagnosis. This was good enough at the time when better diagnostic facilities were lacking or inaccessible, but to-day the teaching has to be changed to the point of view that these symptoms indicate lung disease—the cause of which has to be determined by investigation. The result of association of well developed symptomatology with the X-ray showing tuberculosis lead to the fear of tuberculosis, the fear of the X-ray because it would show tuberculosis. This, too, has had to be changed, for of the 16,500 miniatures taken during the past year only 1% showed evidence of tuberculosis disease, and only 0.5% or 5 out of 1,000 gave evidence of active disease. Surely the time has come when we can with truth tell the public—Be X-rayed to be sure your lungs are clear. The chances of having disease are only 1 in 100.

Treatment. The efficiency of treatment has been materially improved by several factors;—more accurate methods of investigation; the advent of streptomycin and P.A.S.;—remarkable improvement in anaesthetics and improved surgical principles in relation to pulmonary disease.

The answer to treatment however does not lie in blind loyalty to any one method of treatment, more especially dependence of streptomycin and P.A.S. Best results will be obtained by the balanced use of any or all and keeping streptomycin as a most valuable adjunct to be employed only when required as part of the pattern for recovery.

Two limiting factors are present. In pulmonary tuberculosis the well developed chronic cavity still does and always will limit the efficiency of treatment and the prognosis for the patient—for cavity means lung destruction and chronicity means rigidity and frequently non collapsible tissue. The adequate use of case finding procedures in all adult age groups is the one real hope of beating cavity formation.

The other limitation to successful treatment is tuberculosis meningitis. We can all remember when tuberculosis meningitis had a prognosis of three weeks. With the exception of an occasional recovery the only change is a marked prolongation of invalid life.

Such then is a bird's eye view of the present situation in the control of tuberculosis from the medical viewpoint. Free treatment and mother's allowance remove the worry of cost and maintenance. Legislation to control the recalcitrants is available where necessary—and results in falling death rates indicate that we have the right plan.

In no other field of medical and preventive endeavour is the prospect better to completely control a disease which has been such a waste of life, usefulness and happiness. Treatment of pulmonary tuberculosis has become somewhat of a specialty and this is made more so by the fact of free treatment in subsidized hospitals with staffs attached to them—but treatment means failure to prevent and it is in the homes and the patients in every day practice that tuberculosis developed to the point of being a disabling disease.

Once a new case is diagnosed, preventive measures are immediately instituted among the known contacts. Tuberculin tests of the children X-rays of positive reactors and X-rays of all adults, B.C.G. vaccination for negative tuberculin reactors.

We again place on record our appreciation for the sustained interest of the practising physician in the plan for tuberculosis control. May we request a continued and expanding partnership in this endeavour.

Review of Diagnosis and Treatment in Apoplexy

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IN this review apoplexy is separated into cerebral thrombosis, cerebral hemorrhage and cerebral embolism. Symptomatic treatment and general good nursing care are mentioned as the most we have to offer by Beckman¹. Gilbert and de Takats² have proposed using a cervical sympathetic block as an emergency measure in the coma of cerebral thrombosis and cerebral embolism. Bain³ has stated that the technique can be learned by the physician in general practice and can be done safely if certain precautions are followed.

It has been emphasized by de Takats⁴ that a provisional diagnosis has to be made as soon as possible as they found that the earlier treatment could be instituted, the better were chances to hasten the patient's recovery.

In distinguishing between cerebral hemorrhage, cerebral thrombosis and cerebral embolism the following may help:

Cerebral embolism occurs in patients suddenly with the source of the emboli usually a cardiac lesion. Blood pressure is usually lower than in hemorrhage and the spinal fluid is clear with a normal pressure.

Cerebral thrombosis or softening is more frequently the cause of apoplexy in old age than is hemorrhage. Ratio is put at 3:1⁵. Evidence of arteriosclerosis was present in all but 1% of cases by Aring and Merritt⁶. Usually onset is gradual and does not deepen. Spinal fluid is rarely bloody and the pressure is generally not raised.

Cerebral hemorrhage is favored by the occurrence of severe headaches and/or vomiting at the onset. Onset with immediate unconsciousness and signs of progression favor hemorrhage. Eye ground abnormalities favor hemorrhage as does neck stiffness. Abnormalities in rate and rhythm and sound of respiration favors hemorrhage. Spinal fluid pressure is increased and bloody in hemorrhage. A high white blood count is more common in cerebral hemorrhage.

de Takats⁴ stated in using cervical sympathetic block they found good improvement in cerebral embolism, fair in cerebral thrombosis and do not advise it in cerebral hemorrhage. They state that theoretically the temporary elimination of vasomotor tonus of the cerebral vessels is unlikely to effectively influence the deranged cerebral circulation, but clinically such appears to be done if injection is done at the earliest possible moment.

Technique;

Bain³ said cervical sympathetic block can be done either in the operating room, if the patient can be conveniently and safely moved, or with the patient in his bed. As with all procaine injections, barbiturates can be given pre-operatively to lessen the risk of a procaine reaction. The block is done on the side of the central lesion.

The patient lies on his back with his neck hyperextended. A pillow is placed under the shoulder of (the side of injection is the side of the central lesion), and the head is turned away from the site of the injection. If the pos-

terior border of the sternocleidomastoid muscle is not prominent, the patient is asked to raise his head against the pressure of the operator's hand. This border is located prior to palpation of the transverse processes of the cervical vertebrae. The site of injection, posterior to the sternomastoid border above the clavicle and over the transverse process of the sixth cervical vertebra, is painted with merthiolate and the rest of the neck is draped. A dermal wheal is placed with a 1 per cent solution of procaine hydrochloride (without epinephrine) over the tip of the sixth transverse process. A lumbar puncture needle with stylet is inserted through the wheal until it makes contact with the tip of the transverse process. The needle slides anteriorly and medially until the point lodges in the groove at the junction of the transverse process and the body of the vertebra. When the needle point is in contact with the vertebral body, aspiration is done for blood, spinal fluid and air. If none of these is observed, 15 to 20 cc. of a 1 per cent solution of procaine hydrochloride are injected slowly with occasional aspirations during the procedure.

The techniques of de Bakey and Ochsner⁷ should be studied prior to attempting stellate ganglion block which is, as stated, unsafe in unskilled hands.

All successful blocks are followed within five to ten minutes by a Horner's syndrome of the affected side. This is characterized by myosis, drooping upper eyelid, dryness and warmth of the affected side of the face and dilatation of the conjunctival vessels.

In general, if a successful block followed by a Horner's syndrome has not resulted in clinical improvement, we have not repeated it. The successful block is repeated only if encouraging relief of symptoms has been obtained.

In all cases of apoplexy the following points are important:

Respiratory System—Oxygen should be used as soon as possible, but mucus and bronchial secretions collect fast in apoplectic cases. Thus postural drainage with patient on his side and the foot of the bed elevated. Aspiration of mucus using a catheter is very helpful. Aminophyllin and Atropine may be used for excessive secretion. Oxygen, postural drainage and inhibition of bronchial obstruction and secretion may clear up neurological signs due to anoxia and prevent the greatest single cause of mortality.

Care of Bladder—Retention and incontinence can be treated by catheterization using aseptic conditions. Often patients are catheterized every six hours but some use postural drainage and others use chemotherapeutic agents.

Fluids—Maintain the mouth in a moist state and keep fluid intake at least at 2 to 3 liters daily. Tube feedings may be used when patient is unconscious over 24 hours.

Sedation—Avoid narcotics. Paraldehyde, Phenobarbitol and chloral hydrate in proper doses can be used.

Hypertonic sucrose may improve any cerebral edema present.

Prognosis;

The patient and his relatives are generally only interested in two things: first, what is the trouble and secondly, when will he be better. So now a word on prognosis.

In apoplexy it is better to defer your prognosis, if possible, until the patient has been observed for three or four days, as recurrences may easily happen. The condition is always serious, but any optimism is better kept to oneself for about two weeks.

Poor prognostic signs are a violent onset, persistence of unconsciousness for over 24 hours, hypo or hyperpyrexia, Cheyne-Stokes respirations, bradycardia or tachycardia. But, as always, part of the story depends upon the patient. To the patient the doctor should be optimistic as many recover completely and are able to resume work.⁸

Summary;

In cerebral embolism use oxygen tent, if fibrillating, use medication to slow the rate, cervical sympathetic block and anticoagulants.

In cerebral thrombosis an oxygen tent, venesection if hypertension is present, cervical sympathetic block, release of any increased spinal fluid pressure slowly.

In cerebral hemorrhage oxygen tent, spinal drainage and if possible drainage and neurosurgical consultation regarding evacuation of clots.⁴ Arteriogram may help localize the hemorrhage.⁹

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Society Meetings

Colchester-East Hants Medical Society

THE annual meeting of the Colchester-East Hants Medical Society was held on May 19th at the Colchester County Hospital. As the new hospital wing had just been declared open by Premier Angus L. Macdonald on May 10th the Medical Society took this opportunity of holding their meeting here where an inspection of the very attractive and up-to-date addition to our hospital was made. The twenty doctors were delighted with the new extension of facilities.

Officers elected for the year were:

President—Doctor S. G. MacKenzie, Sr.

Vice-President—Doctor D. S. McCurdy.

Secretary-Treasurer—Doctor T. C. C. Sodero.

Executive — The above and Doctor E. M. Curtis and Doctor J. B. Reid, Jr.

Representatives to The Medical Society of Nova Scotia Executive—
Doctor H. R. Peel and Doctor P. R. Little.

The professional programme was devoted to a talk by our guest radiologist, Doctor H. R. Ripley of Moncton. It is not often that we have the opportunity of hearing from anyone outside our Province but we were very fortunate in being able to have Doctor Ripley, who is doing a large amount of X-ray work in a very efficient way. His talk, illustrated with many X-ray films, brought to us many of the abdominal and chest conditions in a pleasing manner and in a way suited to general practitioners. In addition to interpreting the X-ray films he stressed a point, too often overlooked, that the radiologist is a consultant and as such he should be in possession of the clinical picture. In fact many films cannot be read without such a knowledge as the X-ray shadows in themselves are not specific for a particular pathology in many cases.

Following Doctor Ripley's lecture and a lunch we had a motion picture film on hernia.

During the election of officers the retiring Secretary-Treasurer was impressed by the fact that secretaries of societies are so often regarded as—once a secretary, always a secretary—and in the election of the new secretary he became only the third one to occupy this position in fifty-one years.

In 1899 the Colchester County Medical Society was organized in Truro following a suggestion from The Medical Society of Nova Scotia, which was meeting here at that time. Doctor H. V. Kent of Truro was elected Secretary-Treasurer which position he held with great efficiency until 1932 when Doctor D. S. McCurdy succeeded him and continued in office until the present time.

During these fifty-one years the Colchester Medical Society joined Hants County in 1907 and continued as the Colchester Hants Medical Society until 1932 when Hants divided; East Hants joining with Colchester and forming the present Colchester-East Hants Medical Society. The Colchester Hants

Society held meetings alternately in Truro and Windsor, travelling by horse, train or during the last few years in cars which had not the power to carry us over the intervening Rawdon Hills.

The original committee to report on the formation of a Colchester Medical Society in 1889 were Doctor Cox of Upper Stewiacke, Doctor Halliday of Shubenacadie, Doctor Dickson of Londonderry and Doctor W. S. Muir of Truro. This group reported to an organization meeting in the Library of the Provincial Normal School, Truro, on November 17, 1889, to the following attending Doctors—Cox, Eaton, D. H. Muir, W. S. Muir, Dickson, Peppard, Murray, Dunbar and Kent.

The Society holds two meetings each year in Truro and attendance and interest remain good.

D. S. McCurdy

Cape Breton Medical Society

The annual meeting of the Cape Breton Medical Society was held at the Royal Cape Breton Yacht Club on May 11th with twenty-six members in attendance. Routine business was transacted and a report of the year's activities was presented by the retiring President, Doctor A. C. Gouthro, and Doctor H. R. Corbett, Secretary-Treasurer. The President of The Medical Society of Nova Scotia, Doctor E. F. Ross, was present and spoke to the gathering on problems of mutual interest.

The guest speaker, Doctor J. W. Merritt of Halifax, presented a variety of interesting case reports illustrating his talk with X-ray films.

The new slate of officers is as follows:

President—Doctor Gordon C. Macdonald, Sydney.

Vice-President—Doctor Charles P. Miller, New Waterford.

Secretary-Treasurer—Doctor H. R. Corbett, Sydney.

Assistant Secretary-Treasurer—Doctor Carmen A. D'Intino, Sydney.

Representatives on Executive of The Medical Society of Nova Scotia—
Doctors M. J. Macaulay, H. J. Devereux, J. R. Macneil, H. F. Sutherland.

Executive Cape Breton Medical Society—Doctors A. Gaum, W. M. Nicholson, A. C. Gouthro.

H. R. Corbett
Secretary-Treasurer

Valley Medical Society

The annual meeting of the Valley Medical Society was held at Wolfville on June 9th, when the guest speaker was Doctor Gerald Rice of Halifax. Outside guests included Doctors H. G. Grant and A. B. Campbell of Halifax, G. D. Donaldson of Mahone Bay, H. A. Fraser of Bridgewater, W. A. Hewat of Lunenburg and A. L. Cunningham of New Germany.

Doctor A. B. Campbell of Halifax and Doctor W. H. Eagar of Wolfville were made honorary members of the Society.

The new slate of officers is as follows: Doctor H. E. Kelley of Middleton, president; Doctor G. K. Smith of Hantsport, vice-president representing Hants County; Doctor S. E. Bishop of Kentville, vice-president for Kings County; Doctor G. E. Davis of Annapolis, vice-president for Annapolis County; Doctor D. S. Brennan of Bear River, vice-president for Digby County; Doctor R. E. Moreash of Berwick, secretary-treasurer.

Doctor V. D. Schaffner of Kentville was appointed representative to the Cancer Committee, and Doctor P. S. Cochrane of Wolfville and Doctor G. R. Mahaney of Bridgetown, representatives on the executive of The Medical Society of Nova Scotia.

Correspondence

May 18, 1950

Dr. H. G. Grant
Secretary
C.M.A., Nova Scotia Division
Dalhousie Public Health Centre
Halifax, N. S.

Dear Doctor Grant:

I know that you and your members share our concern over the disastrous flood in Manitoba, and that you will be interested in furthering the suggestion of Dr. D. L. Scott, President of the Manitoba Division, that doctors can help by personal contributions to the Manitoba Flood Relief Fund.

The attached announcement will appear in the June issue of the C.M.A.J., and I hope that you can assist by publicizing the essence of this message to your members through any available medium.

It is my impression that contributions to the Fund will be required for some months, and this circumstance might be stressed in view of the fact that you may not find it possible to disseminate this information until after the acute phase of the flood has subsided.

Thanking you in advance for your co-operation, I am

Yours faithfully

A. D. Kelly

Assistant Secretary

Flood Relief in Manitoba

Doctors everywhere in Canada have been gravely concerned over the disastrous effects of the flood which has inundated so many communities in Southern Manitoba and which has crippled the city of Winnipeg.

The Canadian Medical Association has offered its assistance to the Manitoba Division on behalf of the organized medical profession and as spokesman for individual doctors everywhere. It is now evident that the physicians of Canada can render most effective aid by contributing as individuals to the Manitoba Flood Relief Fund.

Our colleagues in Manitoba have set for themselves an objective of \$100,000 to be contributed by the medical profession, and they feel that doctors in other parts of Canada will want to help too.

You can best show your neighbourly feeling to the people of Manitoba by contributing personally to the Winnipeg-Manitoba Flood Relief Fund. Donations are being received at the branches of every chartered bank in Canada. Here is an investment that can be recommended with confidence.

Notice

Post-Graduate Scholarship of \$1500.00 is offered to a Canadian medical woman for 1950-1952. The grant will be made in April 1952.

This grant is being made by the Western Canada Region of Soroptimist Clubs, which is interested in fostering improved medical care in general in Canada, and particularly in advancing the work of Canadian medical women.

The object of this grant is to promote special training for a Canadian medical woman, subject to the following conditions:

1. The applicant is to be a woman whose graduation from a Canadian medical college has been within five years of application.
2. The grant is to be used for purposes of post-graduate training in the special field of the applicant's choice.
3. Such post-graduate training need not necessarily be obtained in Canada, but preference will be given to applicants who show intention of carrying on medical work in Canada on completion of such training for a period of at least three to five years.
4. Application is to be made in writing, giving name; address; age; date of graduation; name of medical school; details of medical work since graduation; details of proposed training for which scholarship is intended. Two recommendations attesting character and ability are to accompany application.
5. Application is to be made in duplicate to:
Miss Elizabeth Pearston, Chairman, Selection Committee,
c/o Fort Qu'Appelle, Sanatorium, Fort San, Sask., not later than
January 15, 1952.

Further information available by writing the undersigned or Chariman Selection Committee.

Director, Western Canada Region
Soroptimist Club

Victoria General Hospital Post-Graduate Course in Surgery

Notice has recently appeared in the BULLETIN of the second annual post-graduate course in Surgery given by the staff of the Victoria General Hospital.

Although begun primarily as a preparatory for Certification or Fellowship examinations, it would be of great value to any doctor desiring a refresher course in Surgery. Those of the profession desirous of taking all or part of the didactic course from 18th September to 14th October are asked to write for further information to the Chairman, Victoria General Hospital, Post-Graduate Course Committee.

E. F. Ross, M.D.

Personal Interest Notes

THE marriage took place at Liverpool on May 30th of Marion Barbara Mack, daughter of George Mack of Truro, to Doctor Freeman Burton Webber, son of Burton S. Webber of Cambridge, Hants County. The bride is a graduate of Toronto General Hospital and the groom graduated from Dalhousie Medical School in 1949, and is taking post-graduate work at Springfield General Hospital, Springfield, Mass.

Doctor R. B. Miller, formerly of Great Village is now practising at Pugwash.

Doctor and Mrs. G. V. Burton of Yarmouth left the end of April on an extended trip to Washington, D.C.

Doctor and Mrs. D. F. Macdonald of Yarmouth left by car on May first for Detroit, Michigan, where Doctor Macdonald attended a four-day reunion at Ford Hospital. They returned home in the middle of May.

Doctor and Mrs. A. D. Johnson (Joan Walker of Halifax) of Bralorne, B. C., have been visiting Doctor Johnson's mother, Mrs. T. R. Johnson in Great Village, and Present and Mrs. Stanley Walker in Halifax. Doctor Johnson graduated from Dalhousie Medical School in 1947.

The marriage took place in Halifax on June 1st of Edna Tobin, daughter of Mrs. Gladys Tobin and Doctor Andrew Stewart Wenning, son of Mr. and Mrs. Andrew Wenning of Sydney. Doctor Wenning graduated from Dalhousie Medical School in May of this year, and is at present taking post graduate work at the Victoria General Hospital.

Doctor and Mrs. Wallace M. Roy and their two sons, motored from California visiting Chicago, New York, Toronto and Montreal en route, and are at present visiting Doctor's Roy mother, Mrs. A. K. Roy, in Halifax.

On Saturday, June 3rd, at Halifax, Lorna Jean Wilcox, R.N., only daughter of Mr. and Mrs. Emery E. Wilcox of Pembroke, became the bride of Doctor R. G. Ritchie of Pugwash. Doctor Ritchie graduated from Dalhousie Medical School in 1947.

Doctor Eric B. Howell of Truro, was recently made a Fellow of the American College of Anaesthesiologists.

Dr. and Mrs. W. A. Murray are now residing at 15½ Beech Street, Halifax, and Doctor and Mrs. Gordon W. Bethune, at 100 Oxford Street.

Doctor and Mrs. S. W. Williamson of Yarmouth have been visiting their daughter, Mrs. W. S. Wright, and Doctor Wright, in Montreal.

Doctor and Mrs. L. M. Morton of Yarmouth returned home in April after spending the winter in West Palm Beach, Florida.

Doctor A. G. Shane, Dalhousie 1942, who has just completed four year^s post-graduate work in England, receiving his diploma in Ophthalmic Medicine and Surgery from the Royal College of Physicians and Surgeons, London, has opened an office at 52 Quinpool Road, Halifax.

Doctor S. Clyde Strickland, Dalhousie 1944, of New Glasgow, has been appointed a staff physician in the medical division of Sharp and Dhome, Inc., Philadelphia.

A quiet marriage was solemnized in Halifax on May 27th when Gwen Constance, daughter of Mr. and Mrs. Malcolm MacDonald, became the bride of Doctor G. O. Warr, son of the Rev. and Mrs. B. J. Warr, Doctor Warr graduated from Dalhousie Medical School in May of this year, and plans to practise in Milton, Ontario.

Dalhousie University announces the appointment of Doctor Norman G. B. McLetchie as Professor of Pathology. Doctor McLetchie is a graduate of the University of Glasgow. He was a medallist in Pathology in the last class given by Sir Robert Muir, and after graduation he took up the study of Pathology under Sir Robert Muir. He held a scholarship in research at the University and Western Infirmary, Glasgow, and was lecturer and assistant pathologist at the Infirmary of Glasgow. During the war he was in charge of hospital laboratories in France and India. After the war he went to Bristol University and then came to Canada and in 1947 took up the position of Pathologist at Regina where he has been for the past three years.

The Bulletin extends congratulations to Doctor and Mrs. J. C. Theriault (Rita Chaisson) of Halifax on the birth of a daughter, Christine Anne, on April 15th; to Doctor and Mrs. D. M. Muir (Ruth Shaw) of Shelburne on the birth of a son, Samuel Archibald, on May 1st, and to Doctor and Mrs. G. W. Bethune of Halifax on the birth of a son on May 17.

The marriage took place at Sydney on June 3rd of Shirley Elizabeth, daughter of Mrs. Lena Moore and the late William Moore, Sydney, and Doctor Bruce St. C. Morton, son of Doctor and Mrs. L. M. Morton of Yarmouth. They will reside in Halifax where Doctor Morton is taking post-graduate work at Camp Hill Hospital.

Obituaries

IN the passing of Dr. James Richard Gilroy at his home in Oxford, N. S., on April 6, 1950, the medical profession has lost an outstanding member.

Dr. Gilroy was born 74 years ago at Saltsprings, Cumberland Co., a son of the late James and Elizabeth Gilroy. He received his early education in the country school at Claremont, and later at Springhill and Truro. For a time he taught school as Principal at Joggins. Following this he took up the study of medicine at McGill University, Montreal, from which school he graduated with honors in 1903. In the autumn of the same year he began the practice of his profession at Oxford, N. S., and he continuously served his community and surrounding areas until failing health last November prevented further activity.

He served as a member of Oxford Town Council, was a past president of Oxford Board of Trade, and was for many years Medical Health Officer of the town. He was a charter member of Oxford Lodge Knights of Pythias, a member of the Curling Club and Oxford Fish and Game Association.

He was very interested in improving the appearance of the community and many of the beautiful shade trees which make Oxford so attractive were planted largely through his influence. In fact, in his last car drive before being confined to his home, he was so impressed by the beauty of the River Philip valley that he sought to interest citizens along the road in the importance of planting more trees along the highway and thus make a tree-lined boulevard from Oxford to Collingwood.

An ardent sportsman, the doctor looked forward to his annual outing in the woods each fall.

In politics a staunch conservative.

In religion a member of the United Church.

Immediate survivors are his widow, the former Margaret Hunter of Springhill; three daughters, Mrs. Perce Swan and Mrs. Raymond Baxter of Oxford and Mrs. Charles H. MacLean of Quebec.

In their lifetime not many are privileged to contribute so much to their community's growth and progress, so it was fitting that the funeral on Sunday afternoon, from his Main St. home was largely attended by friends from many parts of the county.

The death occurred suddenly at his home in Bayfield, N. B., on June 4th of Doctor Harold Bruce Barnhill. Doctor Barnhill was born at Two Rivers, Cumberland County, in 1885, son of the late Mr. and Mrs. B. B. Barnhill. He was educated at Windsor College and attended Dalhousie University. Surviving besides his wife, are two sons, Doctor B. E. W. Barnhill, Sackville, and Stanley, Amherst.

Doctor William John Cameron died suddenly at his home in Lansing, Michigan, on May 26th. Doctor Cameron was born at West Bay, Cape

Breton, in 1894. He served with the 25th Battalion in France during the First World War, and on his return from overseas resumed his studies at Dalhousie Medical College graduating in 1924. The following year he went to Lansing, where he continued his practice until the time of his death. Each summer Doctor Cameron and his family returned to Nova Scotia to spend several months at their summer home on the Bras d'Or Lakes and visit relatives. He is survived by his wife, the former Agnes MacKinnon of Glace Bay, one son Douglas, and four sisters and one brother.

DOCTOR WANTED

There is a vacancy for a physician at Springville, Pictou County. Anyone interested should notify the Secretary.