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D.G.

ABSTRACTS

EAR

Some Considerations Regarding the Treatment of Otogenous Brain Abscesses. L. E. MOBERG. (*Acta Oto-Laryngologica*, xxiii., 1.)

About one-third of all brain abscesses are of otogenous origin. They are more frequent in the cerebrum than in the cerebellum (456 cerebral and 188 cerebellar.—Heimann). They are more often associated with chronic than with acute otitis media (one abscess among 2,650 acute cases and six abscesses among 2,500 chronic.—Janssen).

Abstracts

This paper deals chiefly with (1) the correct time for operating, and (2) the best method of drainage and after-treatment.

(1) The abscess should not be opened and drained earlier than three weeks after the appearance of the first cerebral symptoms. Before this time has elapsed the condition is usually one of encephalitis and no abscess is present; incision or puncture at this stage does more harm than good. It is worth considering, however,—and this applies especially to cerebellar abscesses in which, owing to the anatomical conditions, there is less tendency to localization—whether good results might not follow complete excision of the affected area in the early stage. Possibly this might have been effective in preventing the condition found in one of the author's cases in which the autopsy disclosed a chain of several small abscesses in the cerebellum—a state of affairs in which mere incision and drainage could not have been successful.

(2) With regard to drainage, stress is laid on the following points: (*a*) It should be "permanent". Frequent changing of the drainage material injures the abscess wall and favours spread of the disease. (*b*) When the abscess is situated in such a position that it is not easy of access from the mastoid operation cavity, it should be drained through a separate opening elsewhere. (*c*) Only a small area of dura should be laid bare: it is better to make two separate exposures of dura than to enlarge the first if it proves unsuitable. (*d*) Syringing the abscess cavity with antiseptic lotion hastens healing.

THOMAS GUTHRIE.

Some Important Points in the Prognosis and Treatment of the Labyrinthites. PROFESSOR F. H. QUIX. (*Les Annales d'Oto-Laryngologie*, August, 1935.)

If it were true that the less severe forms of œdema and of serous labyrinthitis produced symptoms of irritation whilst the purulent and necrosing types caused phenomena of paralysis, then the diagnosis and prognosis of the labyrinthites would be easy. The author, however, has shown by *post mortem* histological preparations that this is by no means the case, but that the nature, intensity and amplitude of the symptoms which are presented in labyrinthine affections *in vivo* do not permit us to deduce the true nature of the underlying affection. This has caused him to modify his opinions regarding the prognosis of these cases and to hope for recovery, partial or complete, of the labyrinthine functions even in some of the clinically worse types of labyrinthitis.

Similarly, his opinions have been equally modified regarding the therapy of labyrinthine affections. His experiments on animals in order to determine the paths of invasion of organisms to the

meninges have convinced him that drastic surgery of the labyrinth has in the past killed more patients than it has saved.

His line of conduct is therefore as follows: When symptoms of labyrinthitis appear he performs one of the usual operations for drainage of the middle ear and thereafter searches early by lumbar and occipital punctures for symptoms of meningitis. If symptoms do not appear he does not touch the labyrinth. If, however, the number of cells in the cerebrospinal fluid increase rapidly and the symptoms of meningitis present themselves, an operation on the labyrinth is taken into consideration when only an opening of the peripheral wall of the labyrinth is made in accordance with the method of Hautant. The same line of conduct is followed if the presence of microbes in the cerebrospinal fluid is determined. Total removal of the labyrinth, as practised by Neumann, no longer seems desirable because it does not eliminate the microbes from the cerebrospinal fluid but, on the contrary, opens a larger path to the infection. Such total removal is only indicated in the case of a cerebellar abscess complicating a labyrinthitis in order to reach the abscess better and to drain it.

L. Graham Brown.

The Effect of the Intravenous Injection of Local Anæsthetics on Ear Noises. Preliminary Report. R. Bárány. (*Acta Oto-Laryngologica,* xxiii., 2.)

The author was induced to study the influence of local anæsthetics on tinnitus aurium by a chance observation, namely the temporary cessation of tinnitus which had been present for years in a patient who received an injection of 1 per cent. novocain-adrenalin solution in preparation for a septum operation.

In eighty patients with tinnitus the author injected either submucously or intravenously 5 c.cm. of either 1 per cent. novocain, 0·05-0·1 per cent. percain or 0·1 per cent. pantocain. Shortly after the injection the noises in a number of the patients became much weaker or completely ceased. With novocain the effect lasted from twenty minutes to one hour, and with percain from 1-18 hours; while with pantocain the effect was more variable. The patients who reacted well were those with continuous tinnitus, while those with pulsating tinnitus remained unaffected.

The effect was obtained each time the injection was repeated, and in none of the patients did daily repetition of the injections appear to cause any harm.

The author finds that submucous or intravenous injection of local anæsthetics gives also immediate relief from pain, lasting with 1 per cent. novocain for one or two hours.

Thomas Guthrie.

Abstracts

Osteomata in the Mastoid Process. KARL-HEINZ PREUSSE. (*Passow-Schaefer Beiträge*, 1934, xxxi., 203.)

Osteomata of the temporal bone are rare ; in one case the squama was the site and they have been seen in the neighbourhood of the internal auditory meatus.

Nine cases of osteomata in the mastoid process have been published ; the earliest in 1874. The genuine cases are not to be confused with the small osteomata near the insertion of the sternomastoid.

Most of the patients are 20-30 years of age, one was 40.

The tumour is solitary, unilateral and of compact bone : usually in the depth of the mastoid but may project from its surface ; and about the size of a walnut ; they are slow growing and may extend to the dura ; the middle ear is not affected nor the facial nerve, but the external meatus may be. Deformity from projection of the tumour may be the only symptom, though occasionally headache is experienced. Removal presents no difficulty.

W. M. MOLLISON.

NOSE AND ACCESSORY SINUSES

Osteomata of the Nasal Accessory Sinuses. W. B. HOOVER and GILBERT HORRAX (Boston, Mass.) (*Surgery, Gynæcology and Obstetrics*, 1935, lxi., 6.)

The authors review the ætiology, pathology and symptomatology of osteomata of the nasal sinuses and give details of a case of osteoma of the frontal sinus illustrating the use of the transcranial approach to orbital structures.

The operation is based on Naffziger's operation for decompression of the orbits in progressive exophthalmos. A transverse incision is made above the hair-line and the scalp is peeled forwards. A large bone flap is turned laterally. The lateral ventricle is tapped to relieve tension and the dura is retracted from the roof of the orbit. The tumour is then removed by attacking the posterior wall of the frontal sinus and the roof of the orbit.

This approach was favoured in this case because :—

1. The attachment of the tumour was evidently on the cranial wall of the orbit and frontal sinus.

2. Complete removal necessitated the exposure of dura.

3. It was felt that there would be less disturbance of the orbital contents.

4. There would be no visible scar.

5. The orbital arch would be preserved, preventing deformity.

When infection is present the method of Cushing gives better drainage.

W. H. BRADBEER.

Larynx

Frontal Mucocele. A. MOURA. (*Anales d'Oto Rino Laringologia* (Brazil), i., 2, June, 1935.)

The writer describes a rare form of mucocele of the frontal sinuses, so large as to cause a deformity of the frontal bone. The bone, however, was not reduced in thickness by the continuous pressure. It has hitherto been believed that as a mucocele increases in size, its pressure causes resorption of the bony sinus wall so that eventually the classical sign of " parchment crackling " on palpation is produced. But occasionally, as Hajek has pointed out, a mucocele may actually be associated with hyperostosis, which conceals the dilatation and renders diagnosis difficult. Treatment in the case described in this paper consisted in external operation. The article is illustrated by six figures.

DOUGLAS GUTHRIE.

LARYNX

The Reaction of the Perichondrium and the Submucous Layer in Malignant Disease of the Larynx. DOMENICO DELLA CIOPPA. (*Archivii Italiani di Laryngologia*, August, 1935.)

As a tumour extends it must increase, either centrally or peripherally, or in both directions. In this research the author has investigated the changes that take place in the submucous tissue of the larynx and in the perichondrium of the thyroid cartilage.

The twelve cases investigated included two of sarcoma and ten of epithelioma, all of which were treated by the operation of total laryngectomy. The growth was intrinsic in every case. In each case sections were made around the tumour in several different regions.

The author found that in no case did the tumour formation reach the perichondrium and in two cases only did it invade the submucosa. It is possible that dissemination had already taken place by the lymphatic channels but there was no direct extension. There was, however, considerable change in the tissues surrounding the growth—probably due to some irritating factor in the growth. In the submucous tissue there was a considerable increase in the blood-capillary vessels, and in the number of glandular acini. There was also a very marked lymphocytic infiltration. In the perichondrium there was an hyperplasia of the endothelial lining of the vessels. There was no evidence of degeneration and in no section was there any sign of infiltration by polymorphonuclear leucocytes.

F. C. ORMEROD.

Abstracts

TONSIL AND PHARYNX

Fungating Syphilitic Ulcer of the Pharynx. P. REGULES. (*Anales d'Oto-Rino-Laringologia del Uruguay,* 1935, v., 2.)

A man, aged 37, complained of severe frontal headache. On examination an ulcer was found involving the uvula and central portion of the soft palate. It was irregular in shape with an indurated and hyperplastic edge. The patient had been treated for syphilis six years previously. The Wassermann reaction was positive. Microscopic examination of a portion of the edge aroused suspicion of epithelioma, but the lesion healed within a month under treatment by neosalvarsan and bismuth. The serological reaction, however, remained positive. The paper is illustrated by three microphotographs. DOUGLAS GUTHRIE.

Two Cases of the Syndrome of the Parapharyngeal space. H. BURGER. (*Acta Oto-Laryngologica,* xxiii., 2.)

The first case was that of a man, 62 years of age, with epithelioma of the posterior wall of the hypopharynx, associated with which were advanced atrophy of the left half of the tongue, displacement of the mucous membrane of the posterior pharyngeal wall to the right on phonation, and paralysis of the left recurrent laryngeal nerve.

The second case was that of a man of 56 years with a malignant growth of the left parotid gland. This was accompanied by slight enophthalmos of the left eye and contraction of the left pupil, atrophy and weakness of the left half of the tongue, displacement of the posterior pharyngeal wall to the right on phonation, as in Case I, stagnation of saliva in the left pyriform fossa, and immobility of the left vocal cord.

In each of these cases an extensive neoplasm had caused damage to various nerves in the parapharyngeal space. Even in the absence of the large growth the nature of the associated paralyses would in each case have excluded a diagnosis of either the bulbar or the jugular foramen syndromes and pointed unmistakably to the syndrome of the parapharyngeal space. THOMAS GUTHRIE.

Lymphoepithelioma of the Nasopharynx with involvement of the Nervous System. Y. L. CHENG. (*Chinese Medical Journal,* xlix., 10, October, 1935.)

Primary malignant tumour of the nasopharynx is not very common and its exact pathology was poorly understood until recent years. The term lymphoepithelioma is applied to tumours of the lymphoepithelial structures of the pharynx which develop from the branchial epithelium. This type of tumour is closely related to transitional-celled carcinoma, in which there is no

lymphocytic participation. Lymphoepithelioma strongly resembles what was formerly called large round-celled sarcoma.

The primary growth often passes undetected and one of the striking features is early metastasis into the cervical lymph nodes of the same side. Involvement of nervous structures is also a common initial symptom.

The writer gives a detailed account of seven cases with nerve involvement observed in Pekin Union Medical College Hospital within a period of five years. All were middle-aged males. The abducens nerve was most frequently involved, and next in frequency, the trigeminal nerve.

The radio-sensitivity of the tumour is well recognized but results of treatment have not been encouraging, as the primary tumour is usually undetected and the metastatic extension is beyond the reach of surgery. Radiotherapy is the only treatment and should be used in order to give temporary relief.

A good bibliography and seven photographs accompany this carefully documented paper. DOUGLAS GUTHRIE.

Hæmorrhage in Peritonsillar Abscess. H. BISI. (*Anales d'Oto-Rino-Laringologia del Uruguay*, 1935, v., 1.)

Discussing the rare but alarming complication of hæmorrhage following the drainage of peritonsillar abscess, the writer describes the blood supply to the tonsil and outlines his method of treatment. If direct pressure and the introduction of gauze soaked in peroxide of hydrogen into the cavity fail to check the bleeding, the tonsil should at once be enucleated and the vessel, thus exposed, should be ligatured. When the hæmorrhage is so severe that the general condition of the patient is serious the external carotid artery should be ligatured before any further operation in the abscess or on the tonsil is attempted. Should the bleeding originate from an aberrant vessel arising from the internal or the common carotid artery, those main trunks may require ligature but fortunately no case of this nature has come to the writer's notice. DOUGLAS GUTHRIE.

Pneumococcus Meningitis following Tonsillectomy and Terminating in Recovery. S. H. HARRIS and H. A. YENIKOMSHIAN. (*Lancet*, 1936, i., 143.)

The authors record this case in a nurse, aged 25, at Beirut, in 1926. Removal of tonsillar stumps (left by a guillotine operation in 1916) under local anæsthesia was followed by uneventful recovery. After six days she began to suffer from headache, with a temperature of 100·4° F. Three days later she was re-admitted with severe headache, diplopia, projectile vomiting and a temperature of 104° F. Details of examination are given. Lumbar puncture showed turbid fluid at considerable pressure, the bacteriological

particulars of which are noted. Polyvalent antimeningococcus serum was injected, 60 c.cm. intrathecally and 40 c.cm. intramuscularly. Smears of the fluid showed encapsulated Gram-positive lanceolate diplococci which showed the cultural characteristics of the pneumococcus. No serum was available for classification, but the bacteriological characteristics were not those of Type III. The symptoms showed no change for three days. A second lumbar puncture then drew off purulent fluid and 20 c.cm. polyvalent anti-pneumococcus serum was given intrathecally and 20 c.cm. intramuscularly, and, the next day, 20 c.cm. of 1 per cent. Mercurochrome intravenously. The last was followed by severe reaction, with a temperature of 105·8° F. and collapse, but the patient began to improve next day. Recovery was complete fifteen days later. The authors discuss former records of pneumococcus meningitis and treatment, and give references.

MACLEOD YEARSLEY.

BRONCHI

Factors causing Bronchiectasis: their Clinical Application to Diagnosis and Treatment. W. P. WARNER (Toronto, Canada). (*Journ. A.M.A.*, cv., 21, November 23rd, 1935.)

Bronchiectasis may be defined as a condition in which the bronchial tubes are dilated beyond their normal size. The primary fault in bronchiectasis is a non-specific infection of the bronchial wall causing destruction, particularly of the muscle and elastic tissues present. The weakened bronchus then becomes permanently dilated owing to the focus causing physiological bronchial dilatation. Certain added factors such as atelectasis and fibrosis of the parenchyma, and central bronchial obstruction, tend to produce permanent and pathological dilatation.

The medical treatment consists of draining the dilated bronchus by "postural drainage". Bronchoscopy is of use chiefly as a means of improving postural drainage by removing some central bronchial obstruction such as a foreign body, new growth or granulation tissue. When permanent or pathological dilatation has taken place lobectomy or surgical removal of the diseased lung is indicated.

ANGUS A. CAMPBELL.

The Importance of early Diagnosis in Bronchiectasis. JOHN T. FARRELL (Philadelphia). (*Jour., A.M.A.*, cvi. 2, January 11th, 1936.)

The writer bases the study on 100 unselected cases observed in the X-ray department of the Jefferson Hospital. Males and females were affected about equally and seventy-seven patients were under

thirty years of age. Three arbitrary divisions of extent of the disease have been made: first, slight bronchiectasis presenting definite roentgenographic evidence of structural change but indeterminate bronchoscopic findings and frequently described as tracheo-bronchitis, thirteen patients; second, moderate bronchiectasis presenting unmistakable roentgen indications and bronchoscopic evidence of suppuration, sixty-six patients; third, advanced bronchiectasis with widespread and massive structural changes and pleural complications, eleven patients.

The left lung was involved in forty-one patients, the right in twenty-three, and in thirty-six it was bi-lateral.

X-ray studies of the sinuses were normal in twenty-one patients and seventy-nine showed evidence of change while sixteen had marked disease, in most cases a pan-sinusitis.

Dr. Clerf studied ninety-three cases bronchoscopically, and in seventy-seven instilled iodized oil for pneumography. Eighty-four presented evidence of inflammatory changes in the bronchial tree, fifteen tracheo-bronchitis and sixty-nine, actual suppuration from which pus was aspirated. Nine patients had bronchoscopic evidence of occlusion; in three the narrowing was due to extra-bronchial pressure and in the remainder it followed intra-bronchial narrowing; in three there was scar formation, in two cases an adenoma and in one a papilloma.

ANGUS A. CAMPBELL.

MISCELLANEOUS

Transmaxillary Ligature of the Arteria Maxillaris Interna (*Seiffert's Method*). Z. GERGELY (Budapest). (*Acta Oto-Laryngologica*, xxii., 1-2.)

In case of hæmorrhage from the internal maxillary artery the ligature of the external carotid artery is an uncertain procedure for dangerous epistaxis and in certain operations in the nose because of the collateral circulation.

Seiffert has worked out a method of direct ligature of the internal maxillary artery by the trans-antral method using the same method of approach as in the Caldwell Luc operation, then making a large opening in the posterior wall of the antrum and searching for the vessel by blunt separation of the fat. After ligature a counter opening is made through the inferior meatus of the nose for drainage purposes and the sublabial incision is closed.

The author has investigated the method in six cadavers and offers the following conclusion:—

"The method of Seiffert for the transmaxillary ligature of the A. maxillaris interna has proved very suitable and can be considered

the method of choice in suitable cases. Having taken away the posterior wall of the antrum, the leading landmark is the origin of the A. infraorb. from the main stem. The ligature of the A. maxillaris interna can usually be carried out proximally to this point as well as distally, but sometimes only proximally or only distally."

H. V. FORSTER.

Diagnosis of Latent Abscess of the Brain (Encephalography and Ventriculography). M. AUBREY and J. GUILLAUME. (*Les Annales d'Oto-Laryngologie*, June, 1935.)

The injection of air into the ventricular cavities is of great diagnostic importance in neuro-surgery. Likewise in neuro-otology the writers insist that its employment is equally of great value. Its usefulness is evident not only when there exists the least doubt of the possibility of cerebral abscess, more or less latent, but also in cases of abscess of the cerebellum and even in certain cases of serous meningitis, of ventricular hydrops and even in the diagnosis, sometimes so delicate, of labyrinthine vertigo. Air may be injected into the ventricles in two different ways: (1) by lumbar puncture (encephalography) and (2) by ventricular puncture (ventriculography).

Encephalography, or more exactly, defining the ventricular spaces, is better reserved for cases in which the hypertension is relatively unimportant and in those where there is no stasis. In all other cases and especially if a cerebellar abscess is suspected, it will be preferable to employ the method of ventriculography, since the air injected can be easily withdrawn.

The technique of each method is described and two excellent skiagrams of illustrative cases are shown.

L. GRAHAM BROWN.

Pediatric View of Oto-Laryngology. EDWARD CLAY MITCHELL (Memphis, Tenn.). (*Jour. A.M.A.*, CV., 13, September 28th, 1935.)

The writer discusses the care of the child under heredity, ante-partum care, management of nutrition, and immunization. Since whooping cough, diphtheria and scarlet fever are responsible for many oto-laryngological complications, immunization of the normal child against these three diseases is of considerable interest to the oto-laryngologist. Diphtheria may be eradicated if all children are immunized at the sixth month and controlled by the Schick test. Scarlet fever immunization is not as effective as is the toxoid for diphtheria. There is probably no inherited immunity to whooping cough. Immunization appears to have considerable value, the method is not dangerous and deserves further trial.

Miscellaneous

Paracentesis is not a minor procedure and rarely requires repetition.

No child should be operated on for tonsils and adenoids who shows any evidence of acute infection, whose clotting time is abnormal, or who has any degree of secondary anæmia. Fresh blood transfusion should be used on a child whose hæmoglobin is 65 per cent. or less and in whom the indications are that not sufficient time can be allowed to build up the blood condition by other means. All tonsillectomized children are kept in bed for a week.

The diagnosis of chronic paranasal sinusitis depends on the topography of the sinuses rather than on the degree of cloudiness disclosed by the X-ray. The writer's experience has been that diseased sinuses do act as foci of infection and are responsible for many chronic complications. Allergy often appears after acute infectious diseases when the resistance of the patient is low and undoubtedly plays a prominent part in sinus disease.

The medical profession should certainly supervise operative and nutritional clinics for children as this would eliminate mass tonsillectomies done without reason and which often do much harm.

ANGUS A. CAMPBELL.

Mistaken Laboratory Diagnoses. H. BURGER. (*Acta Oto-Laryngologica*, xxiii., 2.)

In a case of laryngeal disease specimens removed were reported on histological examination by two laboratories of high repute to show definite tuberculosis. The blood examination however gave strongly positive Wassermann and Sachs Georgi reactions, and that the disease was in fact syphilis alone, was shown by the immediate improvement, and in two or three weeks, complete healing which followed anti-syphilitic treatment.

Another case was that of a boy, operated on for acute mastoiditis, accompanied by cervical adenitis, in whom some days after subsidence of the early pyrexia, there occurred renewed rise of temperature and a slight rigor. The laboratory report on the blood examination, namely, complete absence of eosinophil and basophil leucocytes, and low lymphocyte count seemed to indicate a severe infection of either the lateral sinus or the parapharyngeal space. The patient's good general condition however and the tendency of the glandular swelling to subside were indications against further operation, and this view was proved to be correct by his complete recovery.

Stress is laid on the importance of not relying too much on laboratory findings when these disagree with clinical indications.

THOMAS GUTHRIE.

Abstracts

How a Falling Cat turns in the Air. G. G. J. RADEMAKER and J. W. G. TER BRAAK. (*Acta Oto-Laryngologica*, xxiii., 2.)

It is well known that if a cat be held with its back downwards and then be allowed to fall, it will turn in the air and reach the ground on its feet. The turning depends on a subcortical mechanism, as it still occurs after removal of both cerebral hemispheres. On the other hand a cat (with eyes covered), whose labyrinths have been destroyed, does not turn, but falls on its back. The turning therefore depends on intact labyrinths.

The authors have studied the movements of the falling cat by means of the cinematograph and their paper is illustrated by a number of the resulting pictures.

They conclude that the turning is brought about by the contraction in regular sequence of various groups of muscles, namely: dorsal, lateral (of one side), ventral, and lateral (of the other side).

These contractions cause (*a*) one after the other, lordosis, concavity to one side, kyphosis, and concavity to the opposite side; (*b*) turning in like direction of the front and hinder portions of the body round their long axis, which, in consequence of the movements (*a*), form an angle with one another; (*c*) an opposite turning of the body as a whole round the centre of gravity of the animal.

The combined result of these movements is a turning of the animal in the air in the direction in which the front and hind ends revolve on their long axes.

The required muscular contractions can be elicited by experimental stimulation of the semi-circular canals; whether they can be produced by stimulation of the otolith apparatus is still uncertain.

It cannot at present be decided whether the turning in the air is due to the semi-circular canals, or to the otolith apparatus or to both.

THOMAS GUTHRIE.

Modern Concepts of Roentgen Therapy in Cancer. W. EDWARD CHAMBERLAIN (Philadelphia). (*Jour. A.M.A.*, cv., 105, 23, December 7th, 1935.)

It is recognized to-day that, in spite of thousands of cures and countless valuable palliative measures, irradiation, like surgery, is not the final answer to the cancer problem. Cures are sometimes obtained when the dosage has been less than is necessary for the actual destruction of all the cancer cells. This may be the result of fibrosis which sometimes follows irradiation. Viable cancer cells may remain for many years in the tissues of a clinically cured patient. A thorough trial of irradiation may close the door to all known forms of therapy, both surgical and radiological. This inability to foretell the outcome in a given case operates as a practical limitation. Subsequent irradiation is often very disappointing.

Miscellaneous

Important advances have been made in the knowledge of how best to divide the dose, how best to preserve the integrity of the normal tissues and how large a total dose to administer in a given case. Recovery of the skin after irradiation may be as high as 70 per cent. during the first twenty-four hours after the first exposure, and as high as 80 per cent. during the first forty-eight hours.

There is an unwarranted tendency to treat every tumour after the method of Coutard but clinical experience, plus a proper attention to the microscopic appearance of the biopsy specimen, may lead to a definite improvement in results by a better selection of the treatment technique.

Pre-operative irradiation is still in the experimental stage but is rapidly gaining favour with the surgeon. The greatest benefits are seen when sufficient time is allowed for maximum tumour regression to take place before operation is undertaken. Routine post-operative irradiation is losing favour.

There is no physical basis for undertaking to treat patients with costly and troublesome million-volt X-ray apparatus. It is by no means settled that gamma rays are superior to X-rays. No radiologist in the world to-day has sufficient radium to permit a practical technique at depth doses as great as is readily obtained with conventional X-ray beams.

The closest co-operation is necessary between physician, surgeon, pathologist and radiologist in the present-day treatment of cancer.

ANGUS A. CAMPBELL.

Diagnostic Gastroscopy. RUDOLF SCHINDLER (Chicago). (*Jour. A.M.A.*, cv., 5, August 3rd, 1935.)

The author constructed a rigid gastroscope in 1922 but it was soon obvious that it could not be employed in daily clinical use. It became necessary to perfect an instrument which would be flexible from about 3 cm. above the cardia to the distal end of the tube. It was discovered that a tube filled with very thick lenses of a short focal distance, could be bent in several planes to an angle of about 34 degrees without distortion of the image. Better control of the objective could be obtained by keeping the proximal half of the tube rigid and maintaining adequate elasticity in the flexible distal half. The tube can be introduced without serious discomfort and may be used in the office or clinic.

The patient comes without having had food since the previous day and is given a hypodermic injection of codeine sulphate 0·03 gm., together with atropine sulphate 0·0005 gm. Pharynx and hypopharynx are anæsthetized with 2 per cent. pantocain. The stomach is emptied with an Ewald tube and the instrument

is introduced much like a stomach tube. Air is blown into the stomach and the interior becomes visible. The procedure requires about one minute but may be prolonged to fifteen minutes without difficulty. Orientation is learned by experience.

Contraindications are, aortic aneurysm, angina pectoris, œsophageal strictures and varices.

Benign gastric ulcers are usually well seen and may be found present after negative X-ray examination. Diagnosis of malignant ulcer can be made more easily by gastroscopy than by any other method. Changes in the gastric mucous membrane are discernible and three types of gastritis are observed, superficial, atrophic and hypertrophic.

The article is illustrated and has a bibliography.

ANGUS A. CAMPBELL.

OBITUARY

SIR CHARLES BALLANCE

BY the death of Sir Charles Ballance on February 8th aural surgery in this country has lost its great master. He was put in charge of the aural department of St. Thomas's Hospital, in addition to being on the general surgical staff, more than fifty years ago, and though he held many other appointments and his work embraced all aspects of surgery, especially neurological surgery, he always retained his interest in aural surgery, which he found in a most primitive condition. The neglect or at all events the ineffective treatment of suppuration in the middle ear in those days provided a rich harvest of intracranial complications and he shared with Macewen the credit of placing the treatment of these on a proper surgical basis. His attitude to the whole subject is shown by the wide outlook revealed in the *Surgery of the Temporal Bone*, those two noble volumes published many years afterwards, a store of historical learning, clinical wisdom and magnificent illustrations. Everything he undertook was carried out on the same big scale. His experimental researches in surgical pathology are well known, and these were conducted on the same principles. The animals had to be big, and a baboon was always preferred to a rhesus. A gorilla would have been better still, and he always envied Sir Charles Sherrington, who had had the opportunity of making experiments on a gorilla. He found the step from aural surgery to neurological surgery a short one and his achievements in neurological and in general surgery have been recorded and