ABSTRACTS

EAR

Lymphatic Cyst of the Ear. MIN SEIN, M.D., Calcutta. (*Lancet*, 1937, ii, 1,281.)

The author describes a cystic swelling which developed in the concha of the ears of five persons who wore spectacles with curved aural supports. A similar condition developed in a patient who had pressure of a different kind applied round his head. The cyst is believed to be the result of lymphatic obstruction. The patients were apparently all natives of Burma. Treatment by evacuation and injection of a sclerosing fluid, such as quinine urethane solution gives good cosmetic results.

MACLEOD YEARSLEY.

A case of chronic Otitis Media, Cholesteatoma, Sinus Thrombosis and Temporal Lobe Abscess with rupture of the Ventricle into the abscess cavity. Recovery. ERICH RUTTIN (Vienna). (*Acta Oto-Laryngologica*, xxv, 1.)

Besides the diseases mentioned in the title, the patient, a twenty-four-year-old farm-labourer, showed a very extensive necrosis of the dura, which contributed to the development of a serious prolapse of the brain, which gradually went back spontaneously. The only signs of abscess of the brain before the operation were headache, vomiting, and slow reaction capacity, while clear compression symptoms, above all papillary stasis, were entirely absent. There was no aphasia and no symptoms from the motor zone and capsula interna, despite a very extensive abscess formation in the left temporal lobe. The only demonstrable focal symptom was a positive "Cushing symptom" (nasal homonymous quadrantopsia) and the importance of a perimetric examination is stressed in all cases adapted to this, where the diagnosis of abscess of the brain is indefinite or the localization of the abscess uncertain. Ventricle penetration occurred four weeks after operation. The difference between abscess penetration to the ventricles and ventricle rupture to the already emptied abscess cavity is stressed. In order to avoid the latter, it has for many years been the practice in the Upsala clinic to carry out frequent lumbar or suboccipital punctures to keep the cerebrospinal pressure low. A lumbar puncture with the patient in a sitting position is generally carried out when the abscess is emptied, which has the

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added advantage that the whole abscess cavity yawns, so that one has a good survey of it without manipulation. Nine to ten cures of ventricle rupture in cases of otogenous abscess of the brain are recorded in the literature. There is no fully authenticated case of cure of abscess penetration to the ventricles.

[Author's abstract.]

H. V. FORSTER.

A case of Congenital Syphilitic Ear Disease with the results of Clinical and Pathological Examination. H. C. ANDERSEN (Copenhagen.) (*Acta Oto-Laryngologica*, xxv, I.)

A case in which the diagnosis was verified by clinical examination immediately before death, increases the hitherto very scanty knowledge of the pathology of ear-trouble arising from congenital syphilis.

The histological examination of this case showed changes corresponding to those already described in the literature, namely, in the capsule of the labyrinth was a gummatous osteomyelitis which had broken into the labyrinth and meatus acusticus internus; periostitic changes were found in the semi-circular canals, and degenerative changes of apparently non-specific character but corresponding to the hypertonic-hydropic degeneration described by Wittmaack in the organ of Corti.

It is presumed that the ear-trouble arising from congenital syphilis has its origin in a syphilitic osteomyelitis in the capsule of the labyrinth, which on extension to the labyrinth or from toxæmia, provokes changes of the sort described in the interior of the labyrinth.

[Author's abstract.]

H. V. FORSTER.

Concerning a type of Bone Resorption other than typical Osteoclasia. H. GOSULOW (Taganrog). (*Acta Oto-Laryngologica*, xxv, I.)

Microscopic examination of the bone-splinters removed by the operation (in twenty-five cases of mastoiditis) shows that there is another sort of bone resorption which differs from typical osteoclasia, namely, through the splitting off of hard microscopic bony splinters from the bone. At first these splinters are hard and have a bony structure. Gradually they undergo a change, become paler, appear to dissolve, disintegrate into smaller and smaller pieces; change their colour and their structure, until they finally have, in appearance, nothing in common with the bone. They have now become soft, and changed, as it were, into a row of shadows arranging themselves in the pus in the bony region in question. A favourable factor for the splitting off from the bone of small

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microscopic bony splinters is provided by pronounced suppuration, while for the typical osteoclasia the most *favourable* moment is the stage of proliferation at the time of appearance of the granulation tissue.

[Author's abstract.]

H. V. FORSTER.

The Vestibular Apparatus and the Vegetative Nervous System. F. KOTYZA (Prague). (*Acta Oto-Laryngologica*, xxv, I.)

On the basis of a number of illustrative cases the author proves the following statements with regard to the vestibular apparatus:

1. It exercises a considerable influence on the vegetative system of nerves.

2. Excitation by rotation increases the tonus of the vegetative system of nerves, whereas it will have a more pronounced influence on the parasympathetic system than on the orthosympathetic.

3. The excitation evoked by the caloric test according to Kobrak generally decreases the tonus of the vegetative nervous system, whereas it acts in a more pronounced way on the orthosympathetic than on the parasympathetic.

Observations seem to confirm the theory of Lagnel Lavastin regarding the functional relationship between the orthosympathetic and the parasympathetic nervous system.

The stimulation of the labyrinth by means of rotation is more obvious than that called forth by the caloric test. The sudden stimulation of the vestibular nervous system will increase the tonus of the vegetative nervous system, and above all what is called the parasympathetic.

The least stimulation of the vestibular nervous system, according to Kobrak, will decrease the tonus of the vegetative nervous system. The more pronounced sensitivity of the orthosympathetic system may be explained by the fact that an injection of warm water against the upper posterior wall of the acoustic meatus during the Kobrak test will stimulate the vagus nerve, the auditory branch being the intermediary.

[Author's abstract.]

H. V. FORSTER.

How does the Organ of Corti distinguish Pitch? M. H. LURIE (Boston). (*Annal of O.R.L.*, 45, 339, 1936.)

The experiments of Wever and Bray in 1930 have given an increased stimulus to investigation of the physiology of hearing, but many of the reports appear to be contradictory. In this paper the author endeavours to correlate the results of his investigations at the Harvard Medical School with those of the neuro-anatomist,

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and the clinical otologist. In a series of three experiments an animal which gave a normal hearing response was exposed to a tone of 400 d.v. at an intensity of 125 decibels, after which there was a loss of sensitivity in the response, of 50 to 70 decibels throughout the whole hearing range. On making sections of the cochlea it was found that the outer portion of the organ of Corti had been thrown off the basilar membrane in one and a half turns. The internal hair cells remained in their normal position. This is given as direct evidence that the basilar membrane does vibrate, and with violent vibration may damage the organ of Corti.

Lorente de No has demonstrated that the nerve fibres supplying the internal hair cells are connected with one or two cells at the most. A single ganglion cell, on the other hand, will connect with a large number of the external hair cells, a third of a turn or more.

There are more cells in the central portion of the cochlea than either at the base or at the apex, which would suggest that the discrimination of sound should be better in this portion of the cochlea. This corresponds to the experimental evidence that tones below 500 are crowded together towards the apex, and tones above 8,000 crowded towards the base. Two-thirds of the cochlea, the part with the increased nerve supply, appears to locate the ranges from 500 to 8,000.

The author's conclusions are:

1. That neuro-anatomical and physiological evidence is in favour of the resonance theory.

2. Pitch perception is definitely placed on the basilar membrane of the cochlea.

3. There is apparently a difference in sensitivity between internal and external hair cells. The external are responsible for detection of very faint sounds. The internal hair cells are concerned with the fine discrimination of pitch.

4. The external hair cells are more liable to degeneration than the internal hair cells.

5. The chief cause of perception deafness is probably a degeneration of the external hair cells.

GILROY GLASS.

The question of Olfaction in Cetacians. DOTT. ALBERTO PAGANI. (*Archivii Italiani di Laryingologia*, September 1936.)

The author reviews the literature on the question of olfaction in aquatic mammals. The consensus of opinion is that cetacians have no olfactory apparatus. Dr. Pagani has carried out an exhaustive research on the upper part of the nose of the dolphin (*Delphinus delphis*) including a histological examination of the nasal mucosa.

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There is nothing in the structure of the nose that suggests that it is intended for olfaction, or for any purpose other than respiration. The mucosa shows no differentiation that might suggest the function of any special sense. There are no nerves of the type usually found in the olfactory type in mammals. There are some fibres of cerebrospinal type but they are all branches of the fifth cranial nerve and they end in the typical respiratory mucosa, in the glands and muscular tissue. There are no signs of any nerves other than the branches of the fifth pair and there is no evidence that these branches have in any way taken on the function of the olfactory nerves. It has been suggested that the olfactory sense organ is located in some other position than the normal one for mammals, but the author has not been able to find any support for this theory.

F. C. ORMEROD.

The Fundamentals of Allergic Rhinitis with particular reference to Ionization (Iontophoresis). L. W. DEAN, M.D. (St. Louis). (*Annals of O.R.L.*, 45, 326, 1936.)

Ionization will, and does, improve most cases of allergic rhinitis, but it also produces deleterious results in the mucous membrane of the nose, and these changes will last for at least two years. Many are permanent.

The effect of ionization upon the mucous membrane is to produce metaplasia of the surface epithelium—the ciliated cells disappearing and the columnar type taking their place. That the ciliated cells may reappear is true, but the whole membrane is never completely regenerated. There is fibrosis of the tunica propria and the mucous glands are largely, or wholly, atrophied. These latter changes appear to be permanent. There is a definite vascular stasis, and the end organs of the para-sympathetic nerve are paralysed or destroyed.

The changes in the mucosa prevent, to some extent, the absorption of allergens through the epithelium, and hence the apparently good results of ionization. That it is merely a prevention of absorption is evident, as the patient is still equally sensitive to any allergen injected into the sub-mucosa.

Deleterious effects, such as those described, should be avoided when possible, and other means of treating the allergic rhinitis resorted to. A more complete investigation of the cause will, frequently, achieve this object. It is rare, in the author's experience, to find allergic rhinitis in a nose otherwise clinically normal. Septal irregularities and obstructions, hypertrophies of the mucous membrane, etc., should be corrected, and any adenoids removed. This alone will cure a great many cases.

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Dietetic deficiences, malnutrition, and endocrine disturbances are important factors, and must receive attention. Skin tests, or perhaps better, intra-mucosal tests, will indicate the specific protein to which the patient is sensitive, and desensitization or elimination may be possible. The possibility of bacterial allergy should also be investigated and receive attention. Then, and then only, may ionization legitimately be restored to.

GILROY GLASS.

NOSE AND ACCESSORY SINUSES

Transient Ophthalmoplegia and Amaurosis from Septal Anæsthesia. B. SZENDE. (*Monatsschrift für Ohrenheilkunde*, lxxi, 1937, 433.)

A thirty-eight-year-old patient was being prepared for submucous resection of the septum. The nasal mucosa, having been superficially anæsthetized with 1 per cent. pantocain, infiltration of the left side of the septum was begun. Scarcely had 3 or 4 cc. of 1 per cent. pantocain-adrenalin solution been injected, when the patient complained of blindness of the left eye, which he was unable to open. On raising the upper lid, the pupil was found to be widely dilated, and did not react to light. There was complete ophthalmoplegia.

After fifteen minutes, ability to raise the upper lid returned. Sensation of light followed ten minutes later. In half an hour, eye movements became normal, and he was able to see perfectly. A feeling of tension in the affected eye persisted for some hours. Despite these manifestations, the general and cardiac condition remained normal. No abnormality in the retinae was found on examination the next day.

As to the cause of these phenomena, there are two possibilities. Some of the pantocain may have reached the ophthalmic vein by way of the posterior ethmoid veins. Anæmia would cause blindness in the region of the central vein, and anæmia of the orbital tissues would result in a transient palsy of eye nerves and muscles.

On the other hand, the solution injected under pressure may have passed between the muco-periosteum and the lamina perpendicularis and reached the base of the brain through the lamina cribrosa or by way of lymph channels. This would result in a "block" of the structures in the optic foramen and superior orbital fissure.

The author was able to find only one other similar case in the literature, namely that of Else Levy in the *Zeitschrift für Hals. Nasen und Ohrenheilkunde* (1930).

DEREK BROWN KELLY.

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Tonsil and Pharynx

Experiences with Adrianol-Emulsion in the Treatment of Diseases of the Nose and Sinuses. Dr. K. BREHMANKAMP (Essen). (*Münchener Medizinische Wochenschrift*, May, 1937, 19.)

Adrianol is chemically very closely allied to adrenalin. It is, however, very stable in solution and its pharmacological action is qualitatively the same as adrenalin, but quantitatively ten times weaker. The emulsion is a 0·25 per cent. solution in paraffin, aqua dest. gum arabic with a little sodium benzoate. It is made up by C. H. Boehringer, A-G Ingelheim.

The clinical use of this preparation is very satisfactory. It causes a shrinking of the mucosa in a few seconds and the effect lasts several hours. There is no severe reaction. The author has found it most satisfactory for examination of the nose, in treatment of acute rhinitis and sinusitis and also in pre-operative preparation of the nose.

G. H. BATEMAN.

TONSIL AND PHARYNX

Should Peritonsillar Abscess be operated upon during the acute stage or should it be treated by serum therapy? PREDESCURION (Bucarest.) (*Les Annales d'Oto-Laryngologie*, January, 1937.)

The advisability of treating peritonsillar abscesses radically or palliatively is frequently discussed to-day. Many brilliant results following tonsillectomy during the acute stage have been reported. According to the author, however, many unfortunate results have been reported, and many unfortunate results have not been published. Cases in which there is septicæmia associated with thrombophlebitis of the tonsillar veins should, in particular, be treated by antistreptococcal serum with the removal of the tonsils, if necessary, at a later stage. The article contains short notes of eight severe cases which recovered under the treatment which he advises. He does not think it likely that a 100 per cent. recovery would have been obtained in these cases if immediate tonsillectomy had been carried out. He believes in large doses of serum: 100 c.c. in children and 200 c.c. in adults. If necessary, the dose is repeated on the following day. Nor does the author believe in opening an abscess at too early a stage. The tendency nowadays is to recognize and depend on the "Vis Medicatrix" as one of our best methods of treatment, and acute peritonsillar abscess is no exception to the rule.

M. VLASTO.

Variations in the Technique of the operation for the Removal of Tonsils and Adenoids. P. PANNETON. (*Annales d'Oto-Laryngologie*, February, 1937.)

In view of the fact that the operation for the removal of tonsils and adenoids is so frequently performed, the author feels that all

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surgeons should pool their experience in the details of technique so that surgeons may check over their own technique and perhaps be led to modify their own in the light of the experience of others. The present article is designed to "set the ball rolling". He discusses his technique under various headings out of which, perhaps, the following may be abstracted. He has never found the pre-operative administration of calcium to have any effect on diminishing hæmorrhage. He considers this traditional form of drugging as empirically and scientifically foolish. On the other hand, he strongly advises the pre-operative administration of sugar to guard against the possibility of acidosis, particularly if chloroform is to be the anæsthetic. If a general anæsthetic has to be administered, the author prefers chloroform to any other although, as far as possible, he prefers local anæsthesia. In carrying out the removal of adenoids, the author prefers a cage adenotome. He advises that prior to the removal of the adenoids, the finger should scrape, with the finger tip, all the adenoid tissue away from the tubal region into the middle line and thus remove all the adenoid tissue *en masse*. He also advises that the patient should be kept much longer in the operating theatre than usual after the operation. If there is any vomiting to take place, he prefers that it should take place in a bowl by the side of the operating table when the patient is still under expert supervision.

M. VLASTO.

On the question of Abscess Tonsillectomy. A. HEINDL. (*Monatsschrift für Ohrenheilkunde*, lxxi, 412, 1937.)

The author has carried out "abscess tonsillectomy" regularly since 1933, and hitherto has not met with any case in which the procedure was harmful, or has given rise to any complication. He considers the operation necessary in the following cases:

1. In deep-seated abscess or abscess of the posterior pillar.
2. After an incision which has failed to empty the collection of pus completely.
3. After incision which has evacuated pus, but the temperature remains high.
4. When a peritonsillar infiltration causes an elevation of temperature lasting over five days.
5. In cases with high oscillating temperature.
6. Where there is a considerable degree of laryngeal œdema.
7. In severe bleeding after incision.
8. In general systemic complications, e.g. nephritis or arthritis.

If there is a definite rigor, the jugular vein is ligated even if the neck appears normal. The tonsil on the affected side is removed at the same time.

DEREK BROWN KELLY.

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Tonsil and Pharynx

Contribution to the Pathogenesis of Septic Complications of Tonsillitis. ARNE AX. SON SJÖBERG. (*Acta Oto-Laryngologica*, xxv, I.)

From histological research in the pathological anatomy of established grave thrombophlebitis complicating angina, the author concludes that in septic thrombophlebitis of tonsillar origin there is first an interstitial phlegmon in the parapharyngeal space about the tonsillar bed and then the following developments take place as a result of this:

1. The inflammation spreads by attacking the small radical tonsillar veins, causing thrombosis in them with subsequent extension of the intravascular thrombosis or;
2. By taking the lymphatic route and spreading along the lymphatic vessels following the course of the posterior facial vein to the small deep cervical glands. Advancing again from these glands the infection can moreover attack the veins and follow the route of the adventitia.

[Translation of Author's abstract.]

H. V. FORSTER.

Clinical Observations on Chronic circumscribed Tonsillitis of the Upper Tonsillar Fossa and on Peritonsillar Abscesses. ERICH RUTTIN (Vienna). (*Acta Oto-Laryngologica*, xxv, I.)

In inflammation of the upper tonsillar fossa or when tonsillar plugs collect in this space without giving rise to general symptoms, when there is unpleasant breath, or slight pain referred to the ear with the sensation of a foreign body in the neck with slight dysphagia, Ruttin advises exposing the fossa by a cut with scissors.

He distinguishes three types of peritonsillar abscess. The superior, the lateral, and the inferior and describes the symptoms common to the three varieties. The superior abscess is opened in the classical manner, that is to say transversely from without inwards across the upper pole of the tonsils. The lateral abscess is opened by an arc incision behind the tonsil, the inferior by a longitudinal cut in the posterior pillar.

[Translation of Author's abstract.]

H. V. FORSTER.

Remarks on the Pharyngeal Bursa. DR. RAQUÉ (Luchon). (*Les Annales d'Oto-Laryngologie*, December, 1936.)

Towards the latter end of last century this anatomical entity aroused considerable interest and the names of Luschka the anatomist and Tornwaldt the morbid anatomist will always be associated with this subject. The present article is an attempt to focus interest again on the pharyngeal tonsil and to discriminate between the true and the false. We are first introduced to an account of the embryology of the pharyngeal bursa in the light of more modern

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research. Three leading views are held as to the nature of the bursa pharyngea: (1) That it is the remains of Rathke's pouch from which the anterior lobe of the pituitary body is formed. (2) That it is a crypt connected with the formation of the pharyngeal tonsil. (3) That it is an independent outgrowth of the mucous membrane. The result of the author's investigations shows that the first view, which was that held by Luschka, is incorrect, and that the last view is probably nearest the truth. The Author then discusses the various affections (Tornwaldt's disease, cysts, ulceration) to which the bursa may be liable. Finally, the pharyngeal bursa may be the starting point of those tumours known as chordomata. Although the pathology of these tumours is still under discussion, it is known that they may originate either primarily or secondarily from the pharyngeal bursa.

M. VLASTO.

Spreading Osteomyelitis of the Frontal Bones. LOUIS LEROUX (*Les Annales d'Oto-Laryngologie,* December, 1936.)

If only members of the profession were to publish their unsuccessful cases instead of their few successful ones, it would be found that this catastrophic complication is far more frequent than is commonly supposed. The tendency is for this complication to occur in relatively young people. Mosher and Borckers both consider that the staphylococcus is by far the most usual infective agent. Others blame the streptococcus. The matter of the infective agent appears, however, to be relatively unimportant because all forms of vaccinotherapy have proved useless. Most rhinologists agree that the affection is nearly always a complication of a sinus infection, which is either spontaneous or secondary to operative interference. For instance Dan M'Kenzie reported twenty-one spontaneous against seventeen post-operative cases (*Journ. of Laryng.*, xlii, 397). Guisez especially condemns an incomplete operation; and all are agreed that the complication is most likely to occur when operations are carried out during an acute or sub-acute phase.

The onset is always insidious and it is impossible to say exactly when the infection passes from the sinus to the bone. This passage may take place either by continuity or by the vascular route, and this and other theoretical considerations are considered in the article. The author next proceeds to consider in detail the clinical types of the osteomyelitis. When the complication is recognized, the questions arise "will the pathological process become limited or will it spread and, if so, in what direction?" The replies to these questions will determine our method of procedure. The pyrexia and the pain are only indications of infection and not of the degree of extension. It is to the œdema that we must

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chiefly look for guidance. Radiography will assist, but it is on the œdema that we must chiefly rely.

The treatment of this condition is entirely surgical and is discussed in considerable detail. On the one hand we have the heroic surgery recommended by Furstenberg, Mosher and Judd. Mosher supports his conclusions on his results of eight recoveries and six deaths. On the other hand we have the more conservative school, of whom Jason-Dixon may be considered the chief advocate, who consider that the best results are obtained by limiting as far as possible the scope of surgical interference. The author weighs the pros and cons and gives us the results of his considered opinion.

M. VLASTO.

What is the object aimed at in the construction of the expanding Broncho-œsophagoscope? E. I. MATIS (Kaunas). (*Acta Oto-Laryngologica*, xxv, I.)

It has not hitherto been possible, during examination, to regulate the width of the broncho-œsophagoscope after it has been introduced. The regulation at will of the lumen of the tube in broncho-œsophagoscopes constitutes, however, an important problem in modern broncho-œsophagoscopy. After the favourable results achieved by the author with his newly constructed extensible broncho-œsophagoscope, he is of opinion that this problem can be solved. The instrument in question consists of a special extension mechanism which enables adjustment of the grooved specula in relation to each as desired, and of two interchangeable grooved specula differing in size and shape.

[Author's abstract.] H. V. FORSTER.

Artificial Pneumothorax in Perforating Injury of the Bronchus by a Pointed Foreign Body. C. E. BENJAMINS (Groningen). (*Acta Oto-Laryngologica*, xxv, I.)

The Author describes a case of aspiration of an upholsterer's tack which remained in the right bronchus of a five-year-old girl for three months. Radiographs revealed how the entire right inferior and middle lobe had become atelectatic while the point of the tack had probably pierced the bronchial wall. Immediately after removal of the tack by inferior bronchoscopy a skin emphysema announced the anticipated calamity of mediastinal emphysema. An artificial pneumothorax had been prepared for and was immediately carried out, which excluded the right lung, thus preventing air from penetrating the mediastinum. The child recovered. Half a year after the operation radiographic examination still revealed a shrivelling of the entire right inferior lobe together with bronchiectasis.

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The child however was very well and had considerably gained in weight.

[Author's abstract.]

H. V. FORSTER.

MISCELLANEOUS

On delayed Meningitis following Fractures of the Anterior Cranial Fossa. M. ZUM GOTTESBERGE. (*Arch. Ohr-, u.s.w. Heilk.*, cxlii, 299-303, 1937.)

Delayed meningitis ("Spätmeningitis") in fractures of the skull is due to two factors: (1) many fracture lines in the skull heal imperfectly and form a possible pathway for the transmission of infection from a neighbouring focus; (2) infective germs introduced into the tissues at the time of trauma may remain dormant for long periods. Instances of meningitis after fractures of the *middle* cranial fossa are much more often described than those following fractures of the *anterior* cranial fossa. The reason is that fractures of the middle cranial fossa are much more common. Actually, when statistics are analysed, it is found that fractures of the anterior cranial fossa are the more dangerous ones as regards the development of meningitis, whether as an immediate complication or as a delayed one.

The author describes two personal cases. In the first one there was a fracture line through the ethmoid and right frontal bone which had remained open and was visible on an X-ray plate. Eleven months after the accident a fatal meningitis developed. In the second case the period of delay was very much longer. A man, aged 21, was admitted in a state of coma. The cerebro-spinal fluid showed pneumococcal meningitis which proved fatal after two days. There was a history of a motor car accident at the age of 7, i.e. fourteen years before. At that time he sustained a fractured skull and was unconscious for eight days. Subsequently the patient recovered completely and never showed any ill effects from the accident until the development of meningitis fourteen years later. At autopsy the author found an obliterated right frontal sinus and thickened dura with granulations in this region.

In both cases there was a characteristic reddening and swelling of the upper eyelid. In the author's opinion, this is a valuable sign and indicates sepsis in the fracture line.

J. A. KEEN.

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