is through the follicular lymph spaces, in the direction of the larger connective tissue bundles; (3) during the process of absorption the foreign bodies undergo the phagocytic action of the multinucleated neutrophile cells, which lie in and close to the mucous membrane; (4) bacteria are normally present in the lacunæ, but are not usually demonstrable in the tonsillar tissue.

From the preceding cases it seems probable that the bacteria are constantly finding their way into the tonsillar tissue, but at the moment of their entrance they encounter conditions which terminate their existence.

While in some cases acute lacunar tonsillitis may originate from a primary infection of the nasal mucous membrane, the above experiments prove the possibility of direct infection from the buccal secretions.

The finding of bacteria by Fränkel in the tonsillar tissue, and even in the follicles, lends support to the former mode of origin.

A. B. Kelly.

NOSE, &c.

Frohmann, Dittmar (Berlin).—Symptomatology and Diagnosis of Acute Non-Purulent Catarrh of the Antrum of Highmore. "Therapeut. Monats," May, 1898.

ACUTE non-purulent catarrh of the antrum of Highmore does not come often under observation. The condition, as a rule, lasts a few days. The symptoms are usually slight; when the pain is severe dental rather than medical advice is sought. This affection is scarcely mentioned in the older rhinological or dental literature. Later rhinological writers describe it as the precursor of chronic or purulent catarrh of the antrum, and consider that in every acute coryza the accessory sinuses are affected. Larniko gives a detailed description of it, and states that it frequently occurs in the different forms of acute catarrhal rhinitis. "The mucous membrane is hyperæmic and considerably swollen, sometimes narrowing the lumen to a mere fissure; oftener it has a gelatinous appearance from œdematous infiltration. The surface is unevenly swollen from cysts with serous or turbid contents. Microscopically the swelling consists of round cells and serous infiltration with ecchymosis. The secretion is greatly increased—at first serous, then mucous, finally muco-purulent. It drains into the nose; if there is obstruction it accumulates and causes irritation, headache, dull pressure in the head, which may be diffuse or limited to certain parts; pains in the bone or in the region of single branches of the trigeminus." Frohmann lays stress on the presence of toothache due to affection of the nerves which run through the inflamed mucous membrane; sometimes this is absent. He describes seven cases with the above symptoms who had come for dental advice; in these the teeth were found to be healthy. The important symptoms for diagnosis are coryza, pain on pressure over the antrum (best obtained above the roots of the back teeth), toothache in sound teeth (which usually occurs early in the morning), no constitutional disturbance.

Acute pulpitis, dentine formation in the pulp cavity, alveolar abscess, and acute suppurative inflammation of the antrum must be excluded.

His cases all ran a favourable course, and were convalescent after a few days. He considers that more frequent diagnosis of this affection and observation of its progress would throw light on the etiology of empyema of the antrum in relation to nasal or dental disease.

Guild.

Herzfeld, J. (Berlin).—A Simple Method for Plugging and Simultaneously Maintaining an Artificial Opening in the Maxillary Antrum. "Monats. für Ohrenheilk.," Jan., 1898.

HERZFELD describes plugs of pure rubber which he employs in cases of antral suppuration. The plugs are somewhat conical in shape, tapering towards the upper end, and resting at the lower end upon a rather broad but very thin sheet of rubber, which can be cut out so as to fit the teeth, and prevents the plug from slipping up bodily into the antrum. They are made in sizes of two to eight millimètres diameter to correspond with the size of the drill used in opening the antrum. The plug may be introduced at once, and causes no irritation, and patients very soon learn to take it out and reintroduce it. The length of the plugs should be about three certimètres. This is necessary, as the inner opening tends to get blocked by the growth of the new bone.

A similar plug is used for the opening from the canine fossa. It is rather more funnel-shaped towards the lower end, and the part which is pressed by the cheek against the gum is bollow. It is important in these cases to introduce the plug at once, as otherwise the opening in the mucous membrane closes much more quickly than the bone, and secretion accumulates and causes swelling under the mucous membrane of the cheek.

William Lamb.

Jordan, Prof. Max.—Operative Removal of Fibromata from the Base of the Skull.

These tumours grow from the basi-sphenoid, body of the sphenoid, inner lamellæ of the pterygoid process, from the aponeurosis of the foramen lacerum anterius, petrosal occipital suture, and the fossa pterygo-palatina. They fill by further growth the naso-pharynx and accessory cavities, which attracts attention to the primary tumour, which is often without symptoms. The tumours, which are histologically innocent—sarcomatous degeneration is rare—become clinically malignant by their size or from hemorrhage. They are most frequent in the teens. It has been shown by Legouest, Gosselin, Bruns, and König that after twenty-five they have a distinct tendency to retrogressive metamorphosis, which can bring about a spontaneous cure. The importance of this for prognosis and treatment is evident, as it is possible to effect a cure by removing dangerous sequelæ during their period of growth. They may be removed by the écraseur or galvano-caustic snare, by electrolysis, lastly by extirpation through the natural or artificial openings. The possibility of spontaneous retrogressive metamorphosis is in favour of milder measures.

Bruns for several years has advised to attack the tumour, not *in toto*, but in separate parts, to prevent the growth of the pharyngeal part by repeated treatment with galvano-caustic or electrolysis, and to make the peripheral processes—especially the retromaxillary—accessible by temporary resection of the malar bone. In two cases treated in this way he achieved complete and permanent cure.

König ("Lehrbuch der spec. Chirurgie," 7 Aufl., Band I., 1898) recommends a simplification of the operative technique, and advises the removal of the tumour by long, sharp spoons, which are introduced behind the tumour after median division of the nose. In favour of this conservative course, apart from the natural tendency to cure, is the circumstance that it is impossible with any of the previous operations in use to lay bare the root of the tumour without excessive disfigurement, as well as the danger to life, with especially temporary resection of the upper jaw. In all cases where there is no occasion for hurry, and where there are no complications, one should be satisfied with simple rhinological and surgical methods. Recurrences should be repeatedly treated till the protective age is reached.

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In many cases where there are dangerous sequelæ, hæmorrhage, etc., immediate extirpation of the tumour is required by external surgical methods.

Guild.

Meyjes, Posthumus (Amsterdam). — The Treatment of Empyema of the Maxillarv Antrum. "Monats. für Ohrenheilk.," Jan., 1898.

MEYJES describes a form of tube which he has found useful in draining and irrigating the antrum of Highmore. The tube has a metal collar fixed at right angles to its lower end, to prevent it from slipping up into the cavity. A little hole is bored in the collar and a thread of silk or caoutchouc is passed through the hole and round the crown of the next molar tooth. If no suitably shaped tooth is available, the tube must be fixed to a dental plate.

The special feature of the tube, however, is an arrangement which enables it to be opened and closed at will. This is in the form of a little hinged lid, with a spring in the hinge, so that it closes with a snap. On the inner surface of the lid is a little circular elevation or knob, which, when the lid is closed, fits exactly into the lumen of the tube, and completely closes it. The lid is leaf-shaped, and the point of it projects somewhat beyond the circular collar, so that the patient can easily open it in situ with the finger nail.

William Lamb.

Rowe.—Osteo-Periostitis of the Maxilla and Orbit in the New-Born Infant. "Arch. Inter. de Lar.," Mar., April, 1898.

During the latter months of pregnancy the mother had metritis and septic vaginitis, with slight symptoms of infection. On the tenth day the infant showed redness and swelling of the right eye. Exophthalmia followed, and was well marked on the fifteenth day. The cheek became swollen, and on pressure pus escaped from the right nostril and mouth. The alveolar border was red and swollen, and was perforated on its outer side by a couple of fistule, discharging pus. Probing here showed the greater part, if not the whole, of the antrum to be bare. Streptococci and staphylococci were present in large numbers. The orbital abscess burst spontaneously, and on probing through the infraorbital fistula the instrument could be passed into the antrum, and out at the alveolar fistulæ. Subsequently suppuration of the lachrymal sac occurred. The whole was drained, and treated with antiseptic syringing. The local condition seemed to be clearing up, but pyæmic abscesses made their appearance on the arm and foot, and in spite of an injection of Marmoret's serum the infant died. Waggett.

Scheier, Max.—Further Communications with regard to the Use of Roentgen Rays. "Arch. Inter. de Lar., Rhin., Otol.," Mar., April, 1808.

- (a) PROBING of the frontal sinus. The views of a number of authorities on this question are reviewed. The author finds that with the use of the fluorescent screen the position of the probe can be made out with certainty. In five cases he has clearly seen a shadow of the probe in the sinus, while in other instances in which he believed that he had reached the sinus the screen showed the instrument to be in an ethmoidal cell.
- (b) In the study of the physiology of voice and speech it is possible to observe the movements of the tongue, soft palate, and larynx in the pronunciation of the various vowels and consonants by means of the screen. In this way the disturbing influence of indicating levers, etc., employed by previous observers, has been avoided. The results obtained by the author in the case both of the diaphragm and of the organs mentioned should be read in the original.
- (c) Physiology of deglutition. A further communication will appear on this subject. It is interesting to note that in empty swallowing the elevation of the palate is greater than in the swallowing of food.

 Waggett.

Taptas.—Hypnotic Suggestion in a Case of Nasal Stenosis. "Rev. Hebd. de Lar., Otol., Rhin.," Jan. 29, 1898.

THE case of a woman of nineteen, the subject of chronic constipation, pelvic troubles, and nasal stenosis. Examination of the nose showed enlargement of the middle turbinates, particularly at the posterior extremity. The signs and symptoms of nasal stenosis and mouth breathing were present, and seemed to have existed for more than twelve months. Previous to the examination of the nose the patient had for several days been hypnotized, with a view of curing the constipation by suggestion. On the occasion of the nasal examination a further suggestion was made that the patient should breathe freely through the nose. After some resistance she obeyed, and after waking proved to be able to breathe quite naturally. Examination showed nasal patency to be due to considerable shrinking of the middle turbinates, which, of course, remained hypertrophied, particularly at the posterior end. The result was, no doubt, due to arterial constriction, due to vasomotor influences. The patient remained under observation ten days, during which time nasal breathing was maintained night and day. The author remarks that hypnotic suggestion may prove of real importance in the treatment of cocainomaniacs with nasal stenosis. Ernest Waggett.

LARYNX.

Barnick, Otto.—Changes in Larynx and Trachea in Leucocythæmia. "Munchener Med. Woch.," Nos. 19 and 20, 1898.

In many cases of leucocythæmia the changes in the larynx and trachea are inconspicuous, or are of more pathological than clinical interest; on the other hand, marked dyspnæa, or severe coughing without physical signs in the lungs or heart, may be the first indication of this disease. Diffuse swelling of the laryngeal mucous membrane, or extensive lymphatic tumours, have occasioned tracheotomy. Laryngological text-books make little or no reference to this disease. Virchow and others have described small lymphoid tubercles on the inner surface of the epiglottis, the aryepiglottidean folds, and throughout the larynx and trachea. The pathological changes in the laryngeal and tracheal nucous membrane have been well described by Eppinger.

In the parts rich in glands, especially on the epiglottis and false cords, there occurs slight catarrh, with fine tuberculated swelling of the mucous membrane. On the processus vocalis and false cords a small ulcer may be seen here and there on the top of the tubercles, which seldom are larger than millet seeds; it resembles the well-known leukemic ulcer of the intestine, and is characterized by a trough-shaped base and prominent, pale, soft edges. Apart from a large accumulation of white blood cells in the smaller and larger vessels and their surroundings, one sees the characteristic infiltration between the acini and ducts. These extravasations, in the form of small islands, composed of well-preserved white blood cells, well deserve the name of leukemic infarctions. These extravasations on the surface may so stretch by their growth the epithelial covering that it exfoliates.

The soft membrana propria cannot long withstand it, and the cell masses are discharged into the gland ducts. The leukæmic process, whether infarction or ulceration, is characterized by the fact that the white blood cells remain uninjured, and never show a necrotic metamorphosis.

Ebstein and Mayer have reported cases where, owing to laryngeal stenosis from leukæmic infiltration, tracheotomy was required.