incisors, canines and premolars. They are situated between the external and internal plates of the maxilla, develop outwards towards the face, expanding the external plate before them. They have no relation to the antrum except contiguity. Posterior cysts arise in relation to the molars, and are in intimate relationship to the antrum. They push the floor of the antrum before them, invading the cavity, which they gradually fill up, or else, perforating the floor, they empty their contents into the cavity. This, however, very rarely happens.

These cysts arise from paradental epithelial débris, as is shown by the microscopic structure of their lining membrane, which consists of a stratified epithelium (the cells being either of the type of Malpighian cells or of cells of the enamel organ) lying on a subepithelial connective tissue. There is no proper basal membrane.

The diagnosis of anterior cysts presents practically no difficulties. Their position and parchment crepitation or fluctuation distinguish them from any other tumour. Posterior cysts invading the antrum may exist for a long time, and may be well advanced before their presence is suspected. Often their presence is revealed by the considerable flow of serous fluid that follows extraction of a molar tooth. Once the tumour is opened its relation to the antrum is easily ascertained. Transillumination, puncture of antrum, etc., aid in the diagnosis.

Treatment by simple extraction of a tooth, opening and draining through the alveolus, never gives satisfactory results. In anterior cysts the external wall should be freely resected, the whole lining membrane removed or destroyed, and if possible the cavity at once obliterated. In posterior cysts the cavity should be opened through the canine fossa, the whole lining membrane removed, then the wall separating the cyst from the antrum cut away. Subsequent treatment should be as in Luc's operation for antral empyema. *A. J. Hutchison.*

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## NOSE, Etc.

**Berger.**—*Complete Rhinoplasty.* "La Presse Méd.," February 28, 1900.

For complete rhinoplasty Martin proposed the use of a metallic support; results obtained by his method were not satisfactory, from the frequency of deep suppuration. Berger suggested that the metallic support should be included between two layers of tissue. Vautrin was the first to operate by this method with success. Berger now reports a successful case of his own (*Acad. des Sciences*, February 12, 1900). The external nose was completely destroyed by disease. After very careful disinfection of the parts, two lateral flaps taken from the face were turned over, raw surface outwards, so as to meet in the middle line; a third flap taken from the forehead was turned down, raw surface inwards, so as to lie over these; between the two layers thus obtained a platinum support was included. Union took place by first intention. From an æsthetic point of view the result is fairly good. The platinum support is well tolerated. *Arthur J. Hutchison.*

**Buller and Byers.**—*Case of Exophthalmos from Empyema of Frontal Sinus and Ethmoid Cells; Operation; Recovery.* "Montreal Medical Journal," March, 1900.

A butcher, aged nineteen, was seen after a history of painful bulging of the left eye extending over fifteen days. The protrusion was said to have come on suddenly during the night, and had not increased since it was first noticed. There was weakness, loss of appetite, and chilliness. Temperature 102; vision normal; movements of eye impaired; right eye normal.

Examination of nose revealed small amount of pus in middle meatus, and on posterior extremity of inferior turbinal of left side. Transillumination showed no difference of transparency of two frontal sinuses, but left antrum of Highmore distinctly darker than right.

Operation was done over inner end of left frontal sinus. The withdrawal of trephine was followed by discharge of considerable amount of muco-purulent matter. Further exploration revealed the ethmoidal cells transformed into soft pulpy material. The parts were all thoroughly scraped, and drainage made in the usual way through the nose.

Exploration of left antrum proved it to be free from secretion, the darkened umbra being caused by thickened bone. The negative result of illumination of the frontal sinus was also remarkable.

The patient made a good recovery, the improvement being gradual. Ten weeks after operation the exophthalmos was scarcely perceptible.

*Price Brown.*

**Lermoyez.**—*Treatment of Nasal Hydrorrhœa with Atropine and Strychnine.* "Ann. des Mal. de l'Or.," July, 1899.

This is a paper of considerable importance, and must take a lasting place in the literature of the subject. To state the contents very briefly, the author adduces arguments to prove that spasmodic hydrorrhœa is like diarrhœa, migraine, etc., merely an accident of arthritism or, more strictly, neuro-arthritism. It frequently alternates with these other phenomena. With regard to the theory that the hydrorrhœa is caused by local lesions of the nose, he points out that the latter are very far from constant in hydrorrhœic patients, whiles he proves incontestably that they may be purely secondary phenomena. He does not doubt that the hypersensitive spots result from constant irritation, and are comparable to the obviously secondary phenomenon of redness and excoriation of the lip. In the same way the polypoid hypertrophies are secondary lesions, and disappear on the cessation of the hydrorrhœa. He proves that the fluid is a true secretion, and not a mere exosmosis, and feels justified in concluding from muscarine experiments on animals that the flow is due to abnormal excitation of the secretory filaments of the superior maxillary nerve. As to the obstructive phenomena, he adduces arguments to prove that the hyperæmia is the result, not merely of a paralytic phenomenon, but of a true vaso-dilator activity, the presence of vaso-dilator fibres having been proved by various authors to be supplied to the nose through the branches of Meckel's ganglion, fibres which reach that ganglion from the medulla along the Vidian nerve and sympathetic. The sneezing is a purely secondary phenomenon.

Dealing with the pathological physiology of the nasal lesions, he again dwells upon the phenomena of redness, maceration, and polypoid

hypertrophy, and he points out that the hyperæsthetic spots are situated at points especially liable by their salient form to be irritated by inspired particles and by the pressure resulting from hyperæmic swelling. In the same way the skin lesions of arthritics are usually found either on salient parts of the body or in the flexures of joints—spots subject to a maximum of irritation. Passing to the treatment of the disorder, one is prepared from the foregoing to find that he deprecates local nasal treatment. It is true that the galvano-cautery and bipolar electrolysis will produce a temporary result by inhibiting secretion and vaso-dilatation, as is the manner with all violent stimuli (anuria on severe sciatic irritation, etc.). Although a temporary check is not infrequent, the literature of the subject reveals the fact that local treatment has produced singularly few lasting cures. More severe operations, such as turbinectomy and decortication of the turbinates, are often attended with very serious after-results. Moreover, mere cauterization has in the author's experience set up on more than one occasion a lasting hydrorrhœa in an arthritic subject.

As arthritism is not a state which can itself be cured, we must be content to deal with symptoms. Leaving aside all local treatment, the author attacks the hypersecretion with atropine, and the vaso-dilatation with strychnine.

His usual procedure is to prescribe:

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| Sulphate of atropine | ... ... | 5 milligrammes. |
| Sulphate of strychnine | ... ... | 5 ,, |
| Syrup of orange-peel | ... ... | 400 grammes. |

Of this one "cuillerée à soupe" to be taken at breakfast for ten days. On the following ten days two doses are taken, and occasionally three doses are taken for another ten days, always at meal-times.

As a rule, he gives a twenty days' course, then a fortnight's rest, and repeats if necessary. As to results, he has dealt with forty-two cases, which he divides into two categories:

1. Fifteen cases treated with the usual endonasal manipulations, removal of polypi, cauterization, electrolysis, etc. Of these, only two could be considered cured.

2. Twenty-seven cases systematically treated with atropine and strychnine. The full accounts of all these follow the paper. Of the twenty-seven, thirteen were lost sight of, and the author has reason to believe that they may at least be considered as improved. Of the remaining fourteen, ten were cured, and four were not cured.

These figures are more favourable than any that the partisans of local treatment can bring forward. *Waggett.*

**Rogers.**—*A Case of Empyema of the Frontal Sinus.* "Journal of Eye, Ear and Throat Diseases," No. 2, 1900.

A woman, aged forty, had suffered from nasal obstruction for three years before being seen by the author, and had been operated on for polypus. This operation evidently consisted of forcible dislocation of one or more turbinated bodies. A few months later purulent nasal discharge accompanied by frontal headache commenced. Polypi were removed at intervals, but the condition steadily grew worse. When first seen by Rogers there were drooping, swelling and discoloration of left upper lid, and exquisite tenderness at the inner canthus. The nose was full of polypous masses bathed in pus, the septum largely destroyed, the left middle turbinal partly necrosed.

A radical external operation was done on the left frontal sinus. It was found full of pus and polypi. These were thoroughly cleared out, and a large opening was made into the nose, necrosed bone being carefully sought for and removed. After being washed out the cavity was packed with gauze, the end of which passed down into the nose, and the external wound was sutured. The skin wound healed by first intention, and for the first fortnight the patient did well. Then pain and nasal discharge returned. The right frontal sinus was now treated in the same way. The wound healed without suppuration, and on the ninth day, when the stitches were removed, there was neither pain nor tenderness and the nasal cavities were dry. Five days later an abscess developed in the line of incision, and the entire forehead was found infiltrated. The incision was reopened, and treatment by means of bichloride solution carried on for a month. Then a third operation was performed. The skin and soft parts were turned back so as to expose the whole frontal bone as far as the parietal suture on either side. Over the entire right half the bone was found denuded of periosteum, and blackened and necrotic. A sequestrum was removed, "which extended from the nasal eminence to the right frontal eminence, exposing the superior longitudinal sinus for nearly two inches in extent, and the dura over a space extending from the median line to the middle of the frontal eminence on the right side." The wound healed well, recovery was uneventful, and except for the unsightly scar and marked depression which remains the patient has had no trouble.

*A. J. Hutchison.*

**Warren.**—*The Successful Application of Adrenal Extract in Rhinology.* "Journal of Eye, Ear and Throat Diseases," vol. v., No. 2, 1900.

Two preparations of the extract were used, a glycerinated liquid extract and a less stable but more active sterilized watery extract. The nose was first partially anæsthetized with cocaine, then the extract, diluted with an equal quantity of a 10 per cent. solution of $\beta$-eucaine, was rubbed into the part to be operated on. Several cases of nasal operation are reported, in all of which there was practically no bleeding. Some cases of hay-fever, of "hypertrophy of the turbinated bodies of the tumescent variety," and of acute rhinitis were treated with the same solution, with at least temporary satisfactory results.

*A. J. Hutchison.*

## LARYNX.

**Duvivier.**—*Cancer of the Larynx.* "L'Écho Méd. du Nord," April 29, 1900.

At a meeting of the Société Centrale de Méd. du Département du Nord, Duvivier showed a larynx completely invaded by cancer. There was no trace left of the vocal cords, but the posterior surface of the œsophagus was intact. The points of interest in the case were: (1) The rapidity of growth of the tumour—five months only elapsed between the appearance of the first symptoms and the death of the patient; (2) the slightness of the symptoms; (3) absence of pressure symptoms; (4) absence of hæmorrhage and pain; (5) absence of secondary growths.

*A. J. Hutchison.*