SURGICAL PROCEDURES IN GENERAL PRACTICE

This is one of a series of articles contributed by invitation

SOME NASAL CONDITIONS

BY

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Nasal Polypi

Nasal polypi are localized areas of oedema of the mucosa of the ethmoid and, more commonly, the external or meatal surface of the middle turbinal. The polypi arise from the narrow upper part of the nose, and as they increase in size they expand to the more spacious and broader part, hence becoming pedunculated. Nasal polypi are divided into three main groups, according to their aetiology: (1) allergic; (2) allergic with secondary infection; (3) infective or inflammatory.

The allergic group is the commonest, and is associated with allergic vasomotor rhinorrhoea of long duration. There is a family history of allergic manifestations, such as asthma, hay fever, and urticaria. The nose shows the characteristic and variable pale moist swelling of the mucosa, and the patient has attacks of nasal obstruction, sneezing, and rhinorrhoea similar to hay fever. The polypi frequently recur in spite of vigorous treatment. Mucus is retained in the nasal sinuses, and a low-grade infection is not uncommon.

The infective or inflammatory polypi accompany a chronic rhinitis or sinusitis. X-ray photographs should be obtained, since they are always useful. There is an uncommon type of single polypus known as the post-nasal or choanal polyp, which starts in the middle meatus of the nose and extends backwards into the posterior nares and nasopharynx. It occurs in young subjects, and has a long stalk attached to the mucosa of the antrum, just within the ostium. This large polypus blocks the posterior nares, hence the marked nasal obstruction, and if it is completely removed it may not recur for some years.

DIAGNOSIS

A good view of the nose will show the typical glistening polypi like muscatel grapes arising from the middle turbinal region. Polypi can hardly be mistaken for anything else. A malignant growth is accompanied by pain, it occurs in patients of cancer age, and it is a firm vascular red tumour which bleeds freely when touched. Microscopical section will confirm the diagnosis.

TREATMENT

This must be directed to the removal of the cause and particularly to the underlying allergic condition. The elimination of the exciting causes to which the patient is sensitive, with calcium and thyroid therapy, proves successful. Little or no relief is obtained by the use of sprays, lotions, and inhalations. In fact, these applications are irritating. Immediate relief can be obtained by removing the polypi with the snare, under cocaine anaesthesia. Polypi will recur at varying intervals, but the more thorough the removal the less frequent the recurrence, and in the case of the single polyp a long interval of freedom is probable. Though removal by snare may be merely palliative it has the advantage of allowing a

clear inspection of the interior of the nose at a later date. On the other hand, when the polypi are multiple and inaccessible to the snare, and if sinus suppuration is present, a more radical operation under general anaesthesia is required. The radical operation consists in removing the polypoid middle turbinal and the parts of the ethmoid from which the polypi grow. It may be necessary to resect the nasal septum in order to obtain a free access to the polyp-growing area. Any suppurating nasal sinus is drained.

The snare operation is done when the patient is free from a cold or recent infection. He is placed in the sitting position, and the best possible illumination is obtained by means of the forehead mirror or head lamp. Strict asepsis and antisepsis must be observed. The nose is anaesthetized by swabbing the mucosa of the affected area with a solution of equal quantities of 20 per cent. cocaine and adrephine inhalant (Parke, Davis). Adrenaline 1 in 1,000 solution may be used instead of adrephine, but adrenaline has the disadvantage of producing a reactionary and profuse rhinorrhoea, sneezing, and occasional bleeding an hour or so after its application. The nose is then gently packed with narrow ribbon gauze soaked in the solution of cocaine and adrephine. If a cocaine spray is used the solution should not be stronger than 4 per cent., and the patient is directed to expectorate any of it which trickles into the throat. The snare is threaded with No. 3 snare wire, and the orifice of its barrel should have a bridge so that the wire cannot be pulled right through into the barrel; cutting off the polypi is thus avoided. The polypi are threaded through the snare loop and the barrel is firmly pushed up to their attachment. The polypi should be pulled off rather than cut, so as to obtain an underlying flake of the ethmoid bone. The snaring operation should be done with a light hand, and the better the technique

Snare for removing polypi.

and the more efficient the instruments the better and more lasting the result.

Forcible evulsion with forceps has been known to lead to perforation of the anterior fossa of the skull or of the orbit, and even injury to the optic nerve. The dangerous area is the roof of the lateral mass of the ethmoid—that is, the top of the middle meatus of the nose under cover of the middle turbinal. The point of the forceps should be used parallel to this area, and not directed straight at the roof. Curetting with a sharp ring knife has resulted in severe trauma and osteomyelitis. Rest in bed for a few days is necessary after any nasal operation: exposure to catarrhal infections is thus avoided. The nose should be left alone and at rest. Interference with the natural process of

healing, such as the use of sprays and lotions, is undesirable.

If haemorrhage is excessive the patient should be kept in the sitting position. Injections of haemostatic serum and calcium may be given. A hypodermic injection of 1/4 grain of morphine for an adult is often more effective than any other remedy. If plugging the nose is really necessary, gauze soaked in the cocaine-adrephine solution mentioned above is gently packed on to the bleeding point. The gauze should be removed at the end of twelve hours. Prolonged packing leads to sepsis: a rise of temperature and tonsillitis are often the first indications of sepsis following a nasal operation. A careful inspection of the nose at the end of a fortnight should be made for polypi which have not been seen at the snaring operation. The treatment of allergic polypi by radium implantation is still on trial.

Atrophic Rhinitis (Ozaena)

This is a chronic inflammation of the nasal mucosa which results in the loss of the ciliated epithelium and atrophy of the mucosa. The mucus dries, forming large offensive crusts which accelerate the atrophy of the mucosa. There is a loss of the sense of smell, and these patients are susceptible to any catarrhal infection. Patients with atrophic rhinitis are often found to have pulmonary tuberculosis, and a search for the tubercle bacillus should always be made. In severe cases the atrophy and crusting extend to the pharynx and the trachea.

DIAGNOSIS

The typical atrophy of the inferior turbinates with the easily recognized and unmistakable offensive odour of the crusts; the broad roomy nose; and the long duration of the disease leave no doubt as to the diagnosis. There are a few cases of syphilis, with necrosis and perforation of the middle third of the septum, which may resemble atrophic rhinitis.

TREATMENT

The disease starts in childhood, and treatment should be early and continuous to prevent the later atrophic changes. It consists, first, of thorough cleansing of the nose, and, secondly, the prevention of crusts. The nose is cleaned by large quantities of alkaline solution, such as equal parts of common salt, sodium bicarbonate, and boric acid, one teaspoonful to a pint of warm water. The nose is irrigated with a large nasal irrigator, such as Down's quadruped nasal irrigator. Any adherent crusts should be removed by forceps or by swabbing with hydrogen peroxide. Crust formation is prevented by spraying the nose thoroughly with lipiodol or, if lipiodol is irritating, equal parts of lipiodol and paroline simplex (Burroughs Wellcome and Co.). A mixture of potassium iodide 5 grains with aromatic spirit of ammonia 10 minims at intervals is helpful: the latter counteracts the depressing effect of the iodide. The first thorough cleansing should be performed under cocaine anaesthesia by the surgeon, and the patient is shown how to use the lotion and spray. The nasal toilet, consisting of lotion and spray, should be carried out by the patient morning and evening; but in the milder cases once daily, at night-time, is sufficient. Treatment has to be continued for long periods and so long as there is any crusting or discharge. The general health should receive careful attention, and residence at the seaside is beneficial.

Foreign Bodies in the Nose

Young children push pieces of paper, beads, fruit-stones, etc., into the nose, and these are found in the

atrium of the middle meatus. It is very easy to lose pieces of gauze or pledgets of cotton-wool in the nose during an operation. Foreign bodies may enter by way of the nasopharynx during swallowing or vomiting, particularly if there is any deficiency or loss of function of the soft palate. If the foreign body is allowed to remain for any length of time it will be covered with calcium deposited from the excessive nasal secretion and so form a rhinolith. A history of the foreign body having been introduced into the nose is not always obtainable, and it is only when ulceration and suppuration occur that attention is directed to that organ.

DIAGNOSIS

A blood-stained offensive discharge from one nostril in a child points to a foreign body, and a close inspection of the nose after shrinkage of the mucosa with cocaine and adrephine will confirm the diagnosis.

TREATMENT

The nose is anaesthetized with cocaine-adrephine solution as used for nasal polypi and the patient is directed to blow the nose vigorously. This may produce the foreign body, but it also has the effect of clearing the nose of secretion. The foreign body is removed by means of a suitable looped hook or forceps, under direct vision with efficient illumination.

Looped hook used in removing a foreign body from the nose.

In difficult, frightened children and when the foreign body is far back in the nose a general anaesthetic is necessary. Syringing to recover the foreign body should never be done, as it may result in the substance being driven into the trachea or into an inaccessible part of the nose. Also, children are frightened by syringing, and infection may be driven to the Eustachian tube and ear.

E. Fenz (*Münch. med. Wschr.*, March 4, 1938, p. 323) describes the results of presacral infiltration with novocain in 143 cases of sciatica. After infiltration 112 were completely relieved, twenty-six were improved, and five showed no improvement. Seventy-six patients could be followed up for periods varying from six months to two years after treatment; forty-nine remained free of pain, sixteen remained improved, and in eleven recurrence had taken place. The technique adopted is described. The patient is fixed in the gynaecological position. A thin needle 12 cm. long is inserted along the inner side of the sacrum to the first or second sacral orifice; care must be taken not to damage the rectum. About 150 c.cm. of normal saline with 1/4 per cent. novocain is then injected. The operation is painless except for the initial puncture of the skin. A single injection is often successful, but on the average four or five are required. The author has given as many as twenty-four without untoward results. Normal saline alone increased the pain. The addition of novocain is essential for success. The causative factor of sciatica could be determined in only 60 per cent. of cases in spite of careful investigation. Of eighty-five cases the aetiological factor was found to be cold in twenty-four, infection in fourteen, bony changes in fourteen, gynaecological diseases in eleven, trauma in seven, diabetes in five, varicose veins in four, a tumour in one, nephrolithiasis in two, prostatitis in one, and flat-foot in two cases. Fenz states that presacral infiltration was successful in all cases of sciatica although not always to the same degree. Except in diabetic cases the underlying cause was not treated, in order to achieve a uniform result.