CLINICAL RECORDS

ETHMOIDAL FIBRO-ANGIOMA

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BENIGN nasopharyngeal growths are rare. They usually fill the retronasal space and may extend into the nasal cavity. In some cases they distort the face and even present at the anterior nares. The structures of the maxilla, the ethmoid region and possibly the antrum may be invaded. These tumours occur between the ages of 10 and 25 and are almost entirely confined to the male and are usually single. They are rich in blood vessels which are thin-walled and sometimes large in size. The blood vessels which are embedded in fibrous tissue do not normally collapse when cut and therefore tend to bleed freely. The surface is covered with mucous membrane, and there is no definite capsule. The older the patient the greater is the tendency for the tumour to diminish in size, even at times undergoing a spontaneous cure.

According to Milligan (1924) the natural tendency to regression is due to ossification of the sutural lines at adolescence. The younger the child the more rapid is the rate of growth, whereas the older the child the slower is the growth. These tumours do not metastasize. The exact site of origin is not easily determined; they usually arise from the periosteum of the basi-sphenoid and basi-occiput. Milligan (1924) mentions seven possible sites of origin: (1) The vault of the nasopharynx, (2) the lateral wall in front and behind the eustachian cushions, (3) eustachian cushion itself and the orifice of the tube, (4) posterior surface of the palate, (5) various sutural lines, (6) adjacent accessory sinuses, (7) pterygo-maxillary process. The tendency to adhere to the adjacent structures makes removal difficult and possibly accounts for their vascularity. Milligan also states that the more posterior the point of origin the harder and firmer is the growth, and the more anterior the softer and more polypoid.

There is no known cause, though trauma is considered by some as a possible cause. Infection seemed to be a contributory factor as in the case quoted by T. E. Hughes (1941), though the obstruction caused by the tumour was very likely the causative factor.

The chief symptoms appear to be obstruction, epistaxis and nasal discharge. Secondary anæmia, deafness, otitis media, dyspnœa, dysphagia and facial deformity may be evident in some cases, the symptoms depending on the route followed by the tumour. There may be loss of taste and smell. Later, as the nose and face are invaded, there may be epiphora, diplopia and exophthalmos. The " frogface " appearance, which is seen in some, is due to the exophthalmos and broadening of the nose. As the tumour increases in size it may interfere with respiration and even deglutition. Usually the mass, which is smooth and

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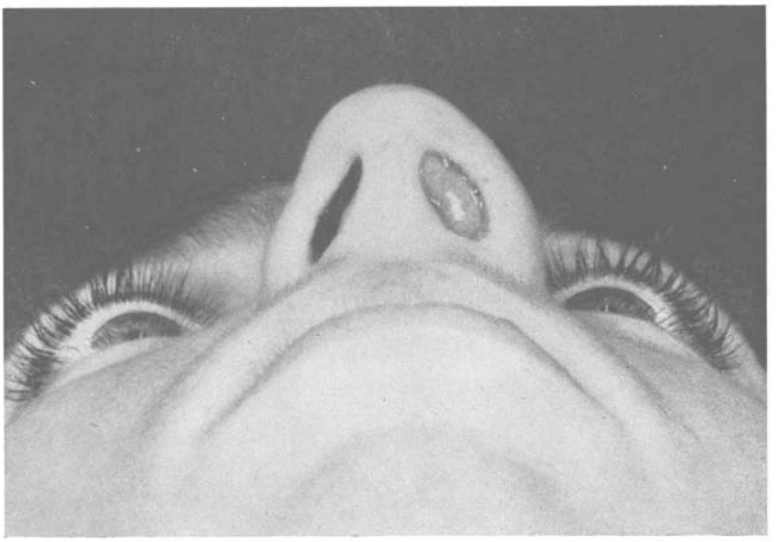


Fig. 1.
Mass presenting at anterior nares.

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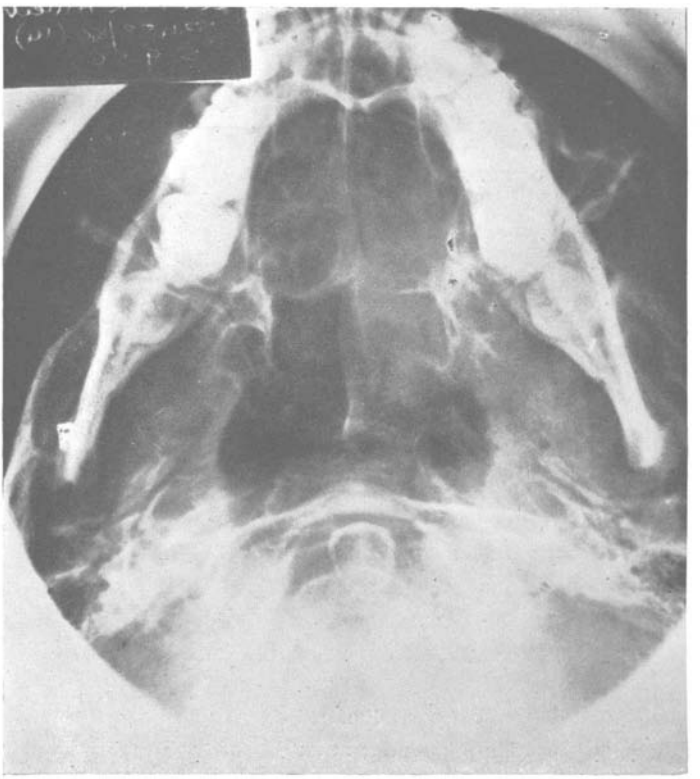


FIG. 2.
Shadow left posterior ethmoid region. Nasopharynx clear.

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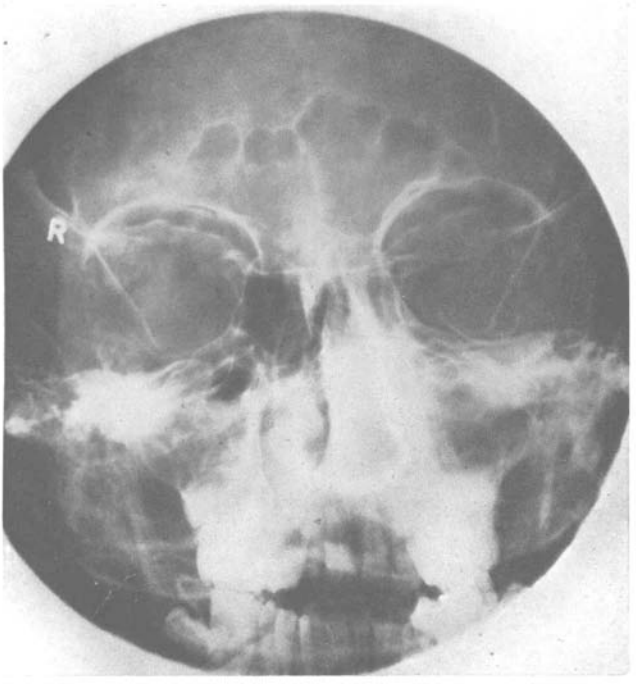


FIG. 3.
Haziness left ethmoid region. Fluid levels both frontals (pre-operative).

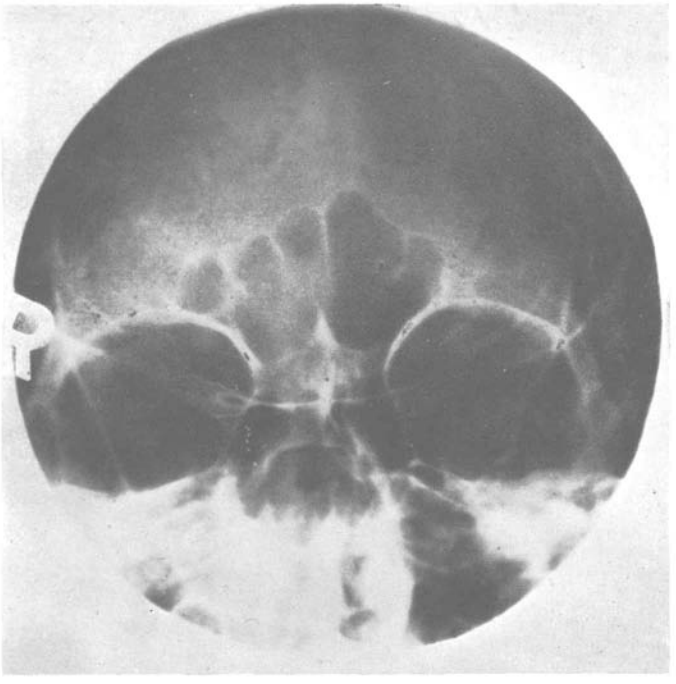


FIG. 4.
Left ethmoid region clear (post-operative).

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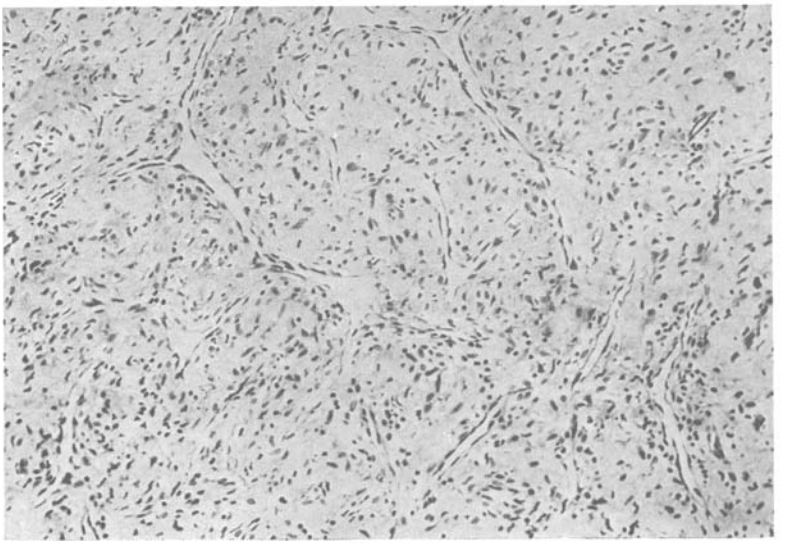


FIG. 5.

Section showing dense fibrous tissue and numerous thin-walled vessels.

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greyish in appearance, is noticed in the postnasal space by means of a postnasal mirror or it may extend below the soft palate.

It is apparently rare for this type of tumour to start in the ethmoid region and extend forwards without in any way invading the nasopharynx. Such a case is herewith presented, occurring in a boy of 16 years of age with a mass showing visibly in the anterior nares (Fig. 1). He complained of a left nasal obstruction and of a mass seen in the left nostril. There was also some left nasal discharge with a history of a varying left epiphora of some fourteen months' duration. The left tear duct had been syringed with, however, no evidence of obstruction as the fluid apparently passed through the duct into the nose. There was nasal speech of the rhinolalia clause variety which had been present for some time. Nothing abnormal was seen in the right nostril, the nasopharynx and the oropharynx (Fig. 2). The hearing too was normal in both ears. The X-rayed sinuses showed opaque antra, the left more so than the right, whereas the frontals and ethmoids were cloudy with fluid levels in the former. The left posterior ethmoids and left sphenoid were also cloudy (Fig. 3).

Under general anæsthesia, with an intubation tube and the oropharynx packed with gauze, the mass was seen to extend backwards towards the ethmoid region. It was firm in consistency. An attempt was made to mobilize and remove this mass through the nose, but it proved to be very tough as small pieces kept breaking away giving rise to a fairly persistent and profuse hæmorrhage. A sub-labial incision was then made and the Caldwell-Luc approach utilized. The ethmoid region was thus approached transantrally and the mass easily encountered. It was seen to extend well into the ethmoid region. Further attempts to mobilize met with greater success as by transnasal and transantral manipulations the main mass was removed, following which the bleeding stopped dramatically. Post-operative section report on this tumour was as follows: " The stroma is composed of moderately dense fibrous tissue in which there are numerous thin-walled vessels. Angio-fibroma." (Fig. 5.)

Subsequent recovery was uneventful. The large nasal cavity tends to crust, but saline douching by the patient seems to keep him fairly comfortable; epiphora also has now completely disappeared. The X-rays of the sinuses taken several weeks after surgical removal of the mass showed a thickened mucosa in both antra, the left more so than the right. The cloudy left ethmoid cells have largely disappeared and so have the frontal fluid levels (Fig. 4).

SUMMARY

1. Fibro-angioma described, which seemingly arose from the left posterior ethmoid region with no evidence of nasopharyngeal invasion.

2. Unilateral obstruction, varying epiphora and nasal discharge were the predominant symptoms.

3. Radiological evidence of infection of the main sinuses was shown, which subsided after removal of the nasal tumour.

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