CLINICAL RECORDS

ANGIOFIBROMA OF NASOPHARYNX

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ANGIOFIBROMA is an uncommon tumour of the nasopharynx which develops almost exclusively in adolescent males. Some authors consider it a true neoplasm, others a congenital malformation of blood vessels, while a further view is that it is an allergic or inflammatory overgrowth. The literature on this subject was recently reviewed very fully by Härmä (1958).

Case Report

The patient, a male University student, aged 19, was referred in *January, 1959*, complaining of left nasal obstruction with some mucoid discharge. These symptoms had been present for seven months and were more pronounced when motor cycling. He had in fact noticed their appearance only after he had acquired his motor cycle, and he wondered if they might be due to this new activity. There were no special features, such as sneezing, suggestive of allergy.

This young man was slimly built, with a fair complexion and red hair. Anterior rhinoscopy showed a slight septal deflection to the right and a moderate degree of generalized mucosal congestion. On posterior rhinoscopy a typical appearance of enlargement of the posterior end of the left inferior turbinate was noted. X-ray of the sinuses demonstrated gross mucosal thickening of the left antrum, the other sinuses being reported as clear. Left antral lavage was negative. An attempt was made to reduce what then appeared to be inflammatory œdema of the posterior end of the turbinate with a cautery point passed along the left side of the nose. When the patient returned for review ten days later he reported that he felt less obstructed but the appearance on posterior rhinoscopy did not show any material difference. Operative reduction of the enlarged posterior end was advised, but the patient was strongly opposed to the idea of any operative procedure. He was asked to reconsider his decision as the left airway was extremely restricted. A month later mirror examination revealed complete obstruction of the left choana, and he then agreed to operation during the Easter vacation. A lateral X-ray of the nasopharynx was taken before admission to exclude the possibility of some pathological condition other than that of the simple diagnosis reached. The radiological report was: "No abnormality seen in the nasopharynx or in the neck. Soft tissue opacities in the nasal cavities may be due to swollen turbinates." Nevertheless the case was marked for operation under general anæsthesia in view of the size of the swelling and its rapid enlargement since it had come under observation. Subsequent events proved that this was a fortunate decision.

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At operation a firm swelling which appeared to arise from the left inferior turbinate was palpated in the nasopharynx. A snare passed through the nose encircled the swelling which was easily removed. Massive hæmorrhage ensued and this was extremely difficult to control with a large pack in the nasopharynx and anterior packing in both sides of the nose. Intravenous transfusion of a pint

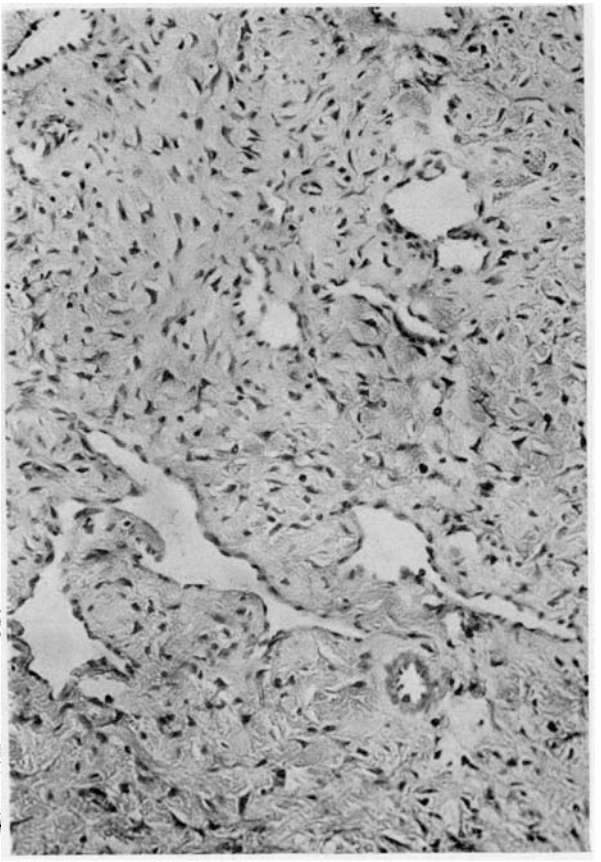


FIG. 1.

A representative field in the central part of the specimen showing the cellular fibroblastic structure and sinusoidal vessels. H. & E. × 200.

of Dextran, followed by two pints of blood, was rapidly given. This caused improvement in the patient's condition about which some concern had been felt. The emergency packs were then replaced by two large postnasal packs moistened with equal parts of tannic acid and gallic acid. Firm anterior packing with paraffin gauze was also necessary. The patient was then returned to the ward where a further pint of blood was given slowly.

The right anterior and postnasal packs were removed without incident two

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days later, and on the third postoperative day, under general anæsthesia with the patient in the Rose position, the packs in the left side were taken out without further bleeding. From then on recovery was uneventful and he returned to his classes shortly after the beginning of the summer term.

The following pathology report was received on the tissue removed:

"The specimen was a greyish-white, smooth-surfaced. lobulated, discoid nodule with a soft rubbery texture and measuring 3 × 3 × 1 cm.

Histologically there is an incomplete epithelial covering, partly stratified squamous and partly respiratory type, with areas of ulceration accompanied by hæmorrhage. The substance of the nodule consists of highly cellular, richly vascular fibrous tissue, many of the vessels presenting a thin-walled sinusoidal structure. Myxomatous areas are noted and there are occasional foci of chronic inflammatory cell infiltration. The features are those of the so-called juvenile nasopharyngeal fibroma."

Two months after operation the only abnormality noted was a small, pale excrescence at the base of the posterior margin of the nasal septum, slightly to the left. This had completely disappeared six months after operation, and there has been no recurrence, and when last seen in *February, 1960*, examination of the nose and postnasal space showed no abnormality.

The sex, age, histology and tendency to massive hæmorrhage conform to the usual description in the literature. There are, however, certain other features of interest in this case.

Site: Many authorities have maintained that the tumour arises solely from the vault or lateral walls of the nasopharynx. Uncertainty about the site of origin has been due to the wide extent of the tumour and the development of secondary attachments. In the present case there is no such uncertainty as the tumour was small and the single stump left after its removal was clearly seen at the base of the posterior margin of the septum.

Endocrine Factors: The tumour arises in males during the period of rapid growth at puberty or later in adolescence and tends to regress as maturity is reached. Many writers therefore believe that it is connected with hormone secretion. Acne vulgaris is another condition occurring in the same age group which is stated to be caused by endocrine imbalance. In our case both diseases were present at the same time. A further point of interest was that a course of gonadotrophin, admittedly in small dosage, was given one month before the onset of nasal symptoms. It is impossible to say whether this may have been an ætiological factor.

Sexual underdevelopment was believed to be a feature of the cases mentioned by Martin, Ehrlich, and Abels (1948). Puberty appeared to occur later than usual in our patient. The voice started to break and he experienced the physical and emotional manifestations of puberty at seventeen. He still has a voice which is more highly pitched than the average male of his age, and he does not yet shave regularly. He has only recently begun to think about the opposite sex. The pubic hair distribution is of the male type, and the genitalia are of normal size. We conclude that the sexual characteristics are about average in development but that puberty was somewhat retarded.

Regression: Complete excision was unlikely owing to the method used and the histology tended to confirm this. The stump which remained following

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operation was seen to diminish in size and six months later the site had healed and appeared normal in every way.

Colouring: Our case had red hair and freckles. Schiff (1959) pointed out that three of his four cases had red hair, and one of them had freckles. Osborn (1959) published a photograph of a boy who seems to be freckled. The significance of this observation is doubtful as the condition occurs in many races with predominantly dark hair.

Acknowledgements

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