Nasal chrondroma

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The following case would seem to be worth recording since chondroma of the nasal cartilage is exceptionally rare. In an excellent review Donnini and Milazzo (1966) could find only thirty cases of chondroma of the nasal passages recorded in the literature since the first description by Casablanca in 1867. Since the publication of their case, we have found only one further recorded example, that of Frolov in 1970. There is no evidence of an increased incidence of cartilagenous tumours in Africans (Dodge, 1964).

Case report

A Nigerian boy, aged 13 years, presented at the maxillo-facial unit at Kaduna, Nigeria, with an enormous swelling of the nose (Figs. 1 and 3). It was

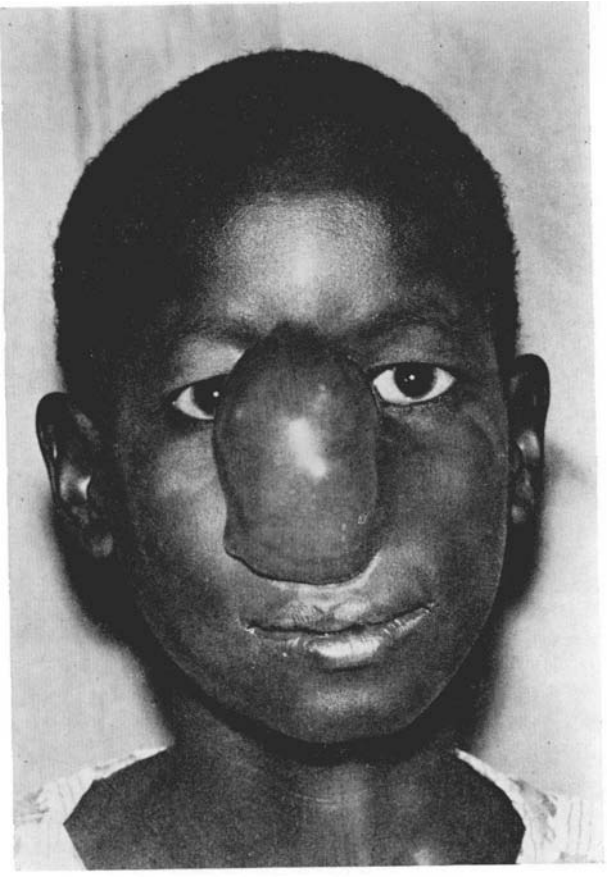


Fig. 1.
Full face photograph showing extent of chondroma involving nose.

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alleged to have started only one year previously as a small lump situated in the left alar region which had proliferated steadily to involve the entire nose. The lesion had always been painless and there was no history of epistaxis.

On examination, tense shining skin overlay a smooth surfaced, circumscribed swelling of the entire nose. At no point, however, was the mass attached to the skin. The nasal tip was displaced downwards on to the upper lip completely obstructing the nasal airway (Fig. 2).

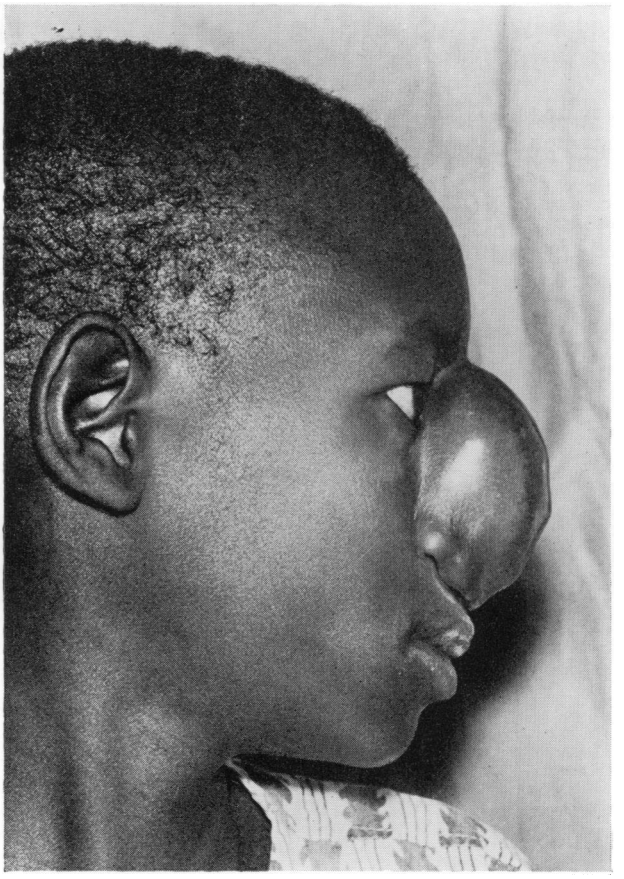


FIG. 2.

Profile photograph to show occlusion of the nares by depression of the nasal tip.

Radiographic examination demonstrated a tumour with radiating striae of increased density lying in a faintly radio-opaque mass which protruded anteriorly to the nasal bones. There was considerable distortion of the normal bony architecture (Fig. 3).

At operation, a midline incision was made over the mass and this was extended around the base of both alar cartilages. The skin was dissected from the underlying tumour, which was found to have a clear plane of cleavage on the right side. The whole mass was removed by lifting and turning the tumour

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over to the left. A small prolongation was found extending posteriorly along the floor of the nose on the left side, but was removed without difficulty, along with the main bulk of the lesion. A fibrous capsule appeared to cover the lesion which arose from the left nasal cartilage near its junction with the nasal bones.



FIG. 3.

Lateral radiograph to show outward extension of tumour which is partly calcified and has caused distortion of the normal nasal architecture.

Although there was marked distortion of the underlying tissues, with the septum being displaced beneath the tumour on the right and the nasal bones being severely splayed, at no point was there any sign of invasion. Reconstruction of the nose was achieved by infracturing the displaced nasal bones, repairing the nasal mucosa and reattaching the periosteum to the perichondrium of the nasal septum. A portion of skin was excised from either side of the midline incision to allow normal recontouring of the face (Fig. 4). When seen over the next nine months there was no clinical or radiographic evidence of recurrence.

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Pathology

The tumour was composed of cartilage with no obvious bone in the many sections taken and no myxomatous areas. The cartilage was cellular (Fig. 5) with the nuclei showing some degree of pleomorphism (Fig. 6). Occasionally, double nuclei were present within one chondrocyte lacuna but no mitotic figures were seen.

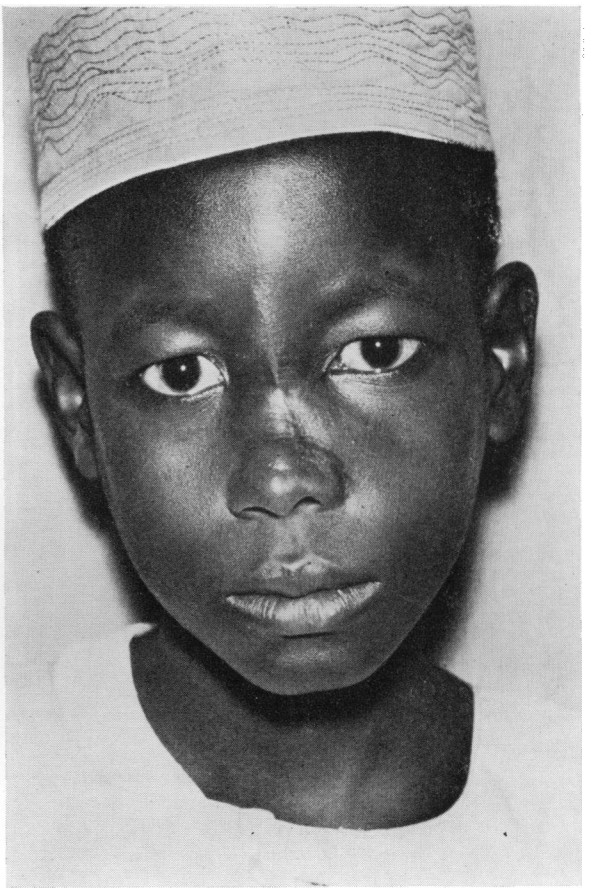


FIG. 4.
Appearance of patient three weeks post-operatively.

The degree of cellularity and differentiation was uniform throughout the tumour, there was no loss of differentiation towards the periphery and a capsule was present over most of the surface.

Discussion

The histological assessment of malignancy in cartilagenous tumours is extremely difficult and rests on finding mitoses, double nuclei in one chondrocyte lacuna and pleomorphism of nuclei (Jaffe, 1958); in one of the author's experience, an occasional noteworthy feature of chondrosarcomata is the

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presence of more primitive cells at the periphery of the lesion. In arriving at a diagnosis the pathologist draws upon an extensive amount of published material on cartilagenous tumours from various sites in the skeleton and particularly, in long bones and the pelvis, he must take into account the clinical

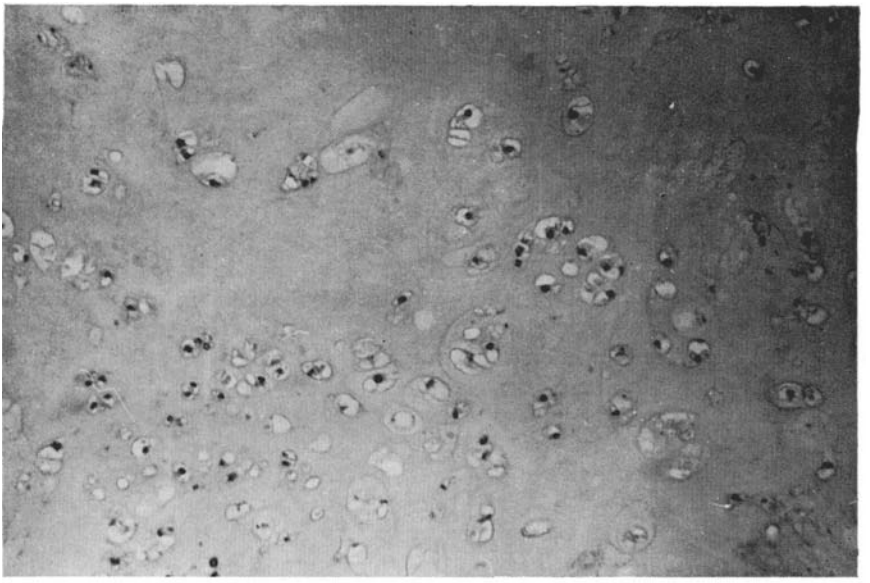


FIG. 5.
Histological section of tumour showing moderate cellularity and good differentiation. (Haematoxylin and eosin × 100.)

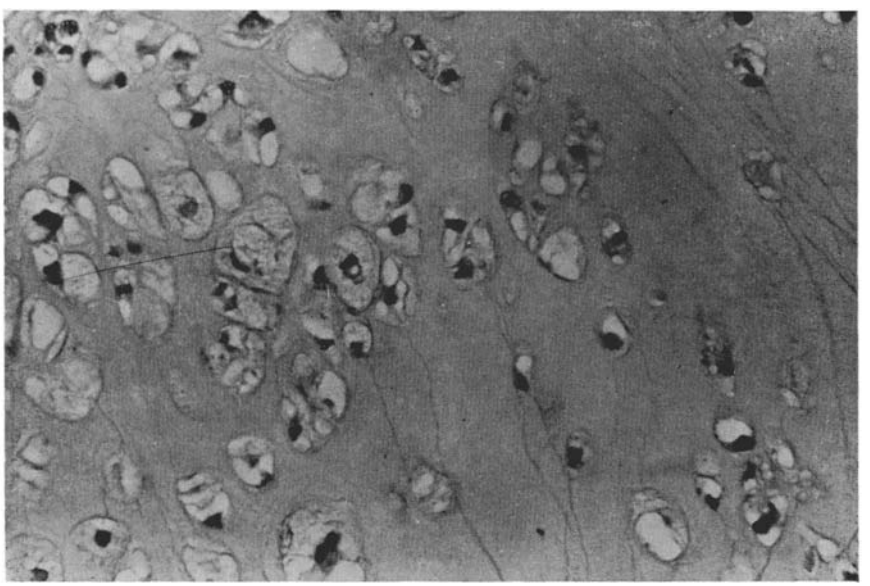


FIG. 6.
Higher power view showing moderate cellular pleomorphism. (Haematoxylin and eosin × 250.)

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picture, including the patient's age, the radiographic findings and, especially, the site of the tumour; it is axiomatic, for example, that cartilagenous tumours of the phalanges are hardly ever malignant. In the case of a chondroma of the nose, however, there are too few documented cases to have the same degree of certitude. The summation of reports of chondrosarcoma—an even rarer tumour (Ringertz, 1938; Soboroff and Lederer, 1956)—and cases of chondroma in the literature only brings the total to around forty cases in all. It is, nevertheless, probably true of cartilagenous tumours of the nasal passages, as elsewhere in the skeleton, that less than 5 per cent of tumours presenting as clinically and histologically benign eventually become malignant (Ackerman, 1968).

Extension of the growth by pressure effects without invasion of the surrounding tissue is important to the diagnosis and this was true of the case described here and the better documented cases in the literature, for example, in the cases of Howarth (1930) and Stride (1957). As with all cartilagenous tumours, the patient's age is of importance; the majority of chondromata in the literature occurred in adolescence or early adult life although there is some overlap with the older age incidence of chondrosarcoma, for example, Donnini and Milazzo's patient with a chondroma of the nasal septum was fifty-eight.

Lawson (1956) described an interesting case of a woman of 68 who developed a chondrosarcoma seven years after the removal of a previous cartilagenous tumour of the nasal septum; when first removed there was no tumour invasion of associated structures and the histological diagnosis was 'chondroma'. The case was not clear cut; however, the patient had received extensive radiotherapy at the time of removal of the original tumour.

It is not sufficient to rely entirely upon histology and, in the circumstances, it is impossible to make a clear line of distinction between the benign and malignant types, especially, as nasal cartilagenous tumours are so rare. Long term follow-up would seem to be essential and the continued publication of case reports imperative.

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