Haemangiopericytoma of maxilla

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Haemangiopericytoma, a tumour of rare occurrence is seldom encountered in clinical practice. The tumour has been described to be arising from various parts of the body by Ault *et al.* (1951), Begg and Garret (1954), and Black and Heinemann (1954) described the involvement of orbit in such a case. Haemangiopericytomas primarily involving the nose have been reported in the past by Fink and Oberman (1963), Rhodes, *et al.* (1964), Lenczyk (1968),



Fig. 1.
Front view of face showing the gross appearance of the lesion.

Gill and Mehra (1968), and Eneroth, *et al.* (1970). Haemangiopericytoma of gum has been reported by Rewell (1968).

A similar tumour of Maxilla alone has not been reported so far. It is for this purpose that the only case seen and treated successfully at G.M. and Associated Hospitals, Lucknow, during the period of 1960–70 is therefore presented.

Case report

B.D., 42 years, female, was examined on 7 August 1970, for the complaints

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of a gradually enlarging swelling on the right side of face for seven months and non-healing ulcer over the swelling for two months. There was no history of bleeding or difficulty in breathing from the nose.

On examination an ulcerated swelling involving the right side of the face extending from the upper lip to just below the orbit vertically and from ala of the nose up to Zygoma transversely was seen (Fig. 1). Skin over the swelling was oedematous and deeply pigmented giving a 'peau d'orange' appearance. It was tender, firm in consistency, smooth, opaque, and could not be moved in either direction. Lateral wall of the right nasal cavity was displaced slightly medially but there was no mass inside the nostril. Vestibule of the oral cavity on the right side was obliterated. There was no trismus. Left nostril, naso-pharynx, larynx, and ears were normal. Cervical lymphnodes were not enlarged. Examination of other systems was normal.

Investigations

Blood: Hb. 12 gm. per cent. Total leukocyte count 8,400 cmm. Differential count.
Polymorphs 56 per cent, lymphocytes 41 per cent, and eosinophils 3 per cent.
W.R. and V.D.R.L.: Negative.
Urine analysis: Normal.
E.C.G.: Normal.
Vision and fundus: Normal.
X-rays: Chest: normal, paranasal sinuses—haziness of the right maxillary antrum with destruction of the anterolateral wall.

Biopsy was done from the ulcerated area leading to a considerable amount of bleeding, which was an unusual feature. It aroused suspicion that the tumour mass might be something other than carcinoma maxilla. Histopathological examination of the tissue revealed confluent masses of partly spindle shaped and partly rounded cells. The reticulum stain clearly brought out the relationship of these cellular masses with capillary basement membrane which were entirely perivascular in arrangement (Fig. 2). This whole picture was compatible with *Haemangio-Pericytoma*.

Treatment

In view of ulcerations and skin involvement, Co_{60} therapy was started under antibiotic cover. However, this was discontinued as there was no improvement or regression in the size of swelling even after a total dose of 2,400 r.

Subsequently, patient was operated on under general anaesthesia. The whole tumour mass was removed along with involved skin. Floor of orbit and palate were left intact. A plastic repair was performed to cover the gap by shoulder tube graft. 700 ml. blood transfusion was given. Tumour mass measured 7·5 cm. × 2·5 cm. × 4 cm. (Fig. 3).

Postoperative period was uneventful and there is no recurrence during the follow-up period of more than eight months.

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Discussion

Haemangiopericytoma as a tumour entity was first recognized by Stout and Murray (1942). It consists of many capillary blood vessels separated by a matrix of rounded or spindle-shaped cells which culture has shown to be derived from pericyta of Zimmermann cells, lying in the walls of the blood vessels. Though the tumour is associated with endothelial structures, it does not spring from the endothelial lining of blood vessels.

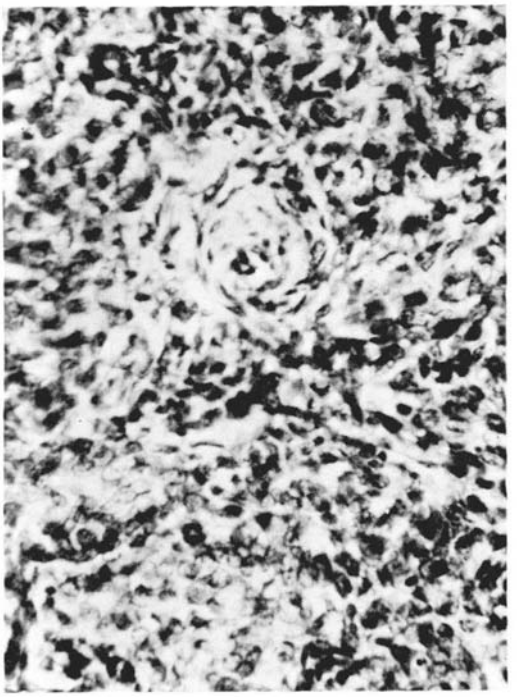


FIG. 2.

High power, shows Islands of plump spindle-shaped cells arranged in small groups specially in relation to blood vessels.

Tumour is usually pale, firm, infiltrative in nature, produces sessile masses, and bleeds freely during removal. Affinity to a particular age and sex have not been proved positively. The growth is nearly always well demarcated and may be partially or completely encapsulated. It is slow growing and recurrence after complete removal is uncommon. Malignant change or early metastasis have not been reported. Late metastasis via blood and lymphatics was found in 12 per cent of the cases by Stout (1949).

Even in metastasizing type there is absence of mitotic activity which makes it difficult to predict the behaviour of the lesion on the basis of the histopathological picture. Possibility of haemangiopericytoma should be considered while studying the histopathological pictures of slow growing and freely bleeding tumours or else it may be overlooked as happened in two of the cases described by Eneroth, *et al.* (1970).

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Tumour is radio-resistant and no beneficial effect of radiotherapy has been observed by Fischer (1960) and Fink and Oberman (1963). To avoid the possibility of recurrence and metastasis at a later date, a wide surgical excision is recommended by O'Brien and Brasfield (1968), Lenczyk (1968), and Fisher (1960).

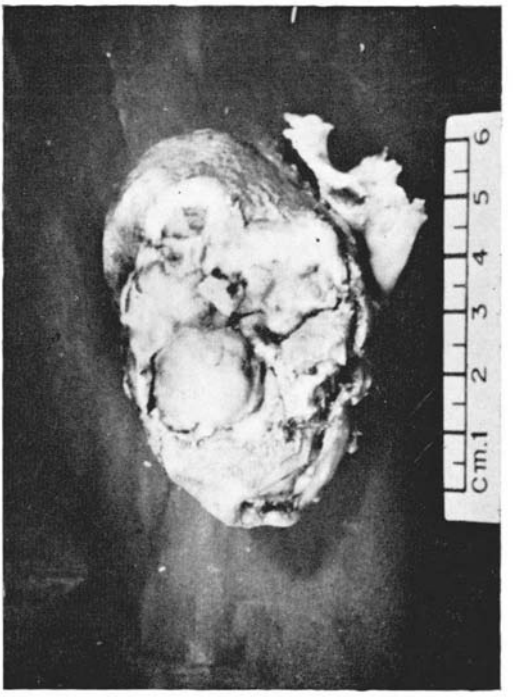


FIG. 3.
Showing the tumour mass after removal.

Summary

A rare case of haemangiopericytoma of maxilla treated successfully is reported. Clinical features, diagnosis and treatment are briefly discussed.

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