" ANGIOSARCOMA "

(A case report)

By

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Angiosarcoma is a malignant growth of blood vessels characterised by masses of endothelial cells (endothelioblasts) displaying all features of malignancy, found generally in young persons of both the sexes, commonest site being the skin, liver, spleen,, lung and bones (Evans, 1956). Various names have been given to this tumour such as malignant haemangioendothelioma, haemangioendotheliosarcoma haemangioblastoma, haemangiosarcoma, angiomatous mesenchymoma and metastasizing angioma,

The occurrence of this tumour is very rare. The authors have come across one case during the period 1964 to 1969 and that prompted us to publish this case.

Case Report. R. S., a Hindu boy of 9 years of age came to outpatient of Malkhan Singh Hospital, Aligarh with a complaint of nodular progressive swelling in the right forearm for last seven months. The growth was situated 6 cm. proximal to the wrist joint on the ulnar side of the forearm. It was 1.5 cm raised from the skin surface, ulcerated, greyish brown in colour, firm in consistency and not attached to the deeper structures. During past two months significant increase in size of the growth was noticed. The tumour was excised completely with a normal skin tissue around and the patient was advised radiation therapy after confirmation of the diagnosis of angiosarcoma.

Gross Pathology. A single irregular warty growth measuring 2.5 x 2.0 x 1.5 cm. in size was received. (Fig. 1). The colour was greyish white except of the ulcerated area where it was brownish. Consistency was firm. Cut surface also showed necrosed and haemorrhagic areas along with greyish white homogenous masses.

Microscopic Pathology. H. & E. stained sections of the growth revealed a breaking away of the epidermis at various places. In the subepidermal zone acute extensive inflammatory exudate comprising of neutrophils, red blood cells, fibrin and bacterial colonies was present. Under this coverage of an Inflammatory exudate was the tumour mass showing varied types of histological picture. At most of the places the deeply stained cells were plumpy or fusiform arranged to form anastomosing capillary spaces containing red blood cells (Fig. 2). At other sites the tumour was densely cellular containing elongated, spindle shaped or round hyperchromatic cells arranged in trabeculae, sheets or solid masses. A good number of mitotic figures of varying types was seen. Fig. 3 showed the reticulin staining character of the tumour. There was condensation of the reticulin fibres around the capillary spaces.

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Discussion. The main features of the case under review were the young age, involvement of the skin and a progressive greyish brown growth in the right forearm of short duration. Angiosarcoma is mostly seen at younger age and the skin is the commonest site for the tumour to occur. Unfortunately some people try to include haemangioendothelioma under this entity (Evans, 1656), but that should be considered as an intergrade between the well differentiated haemangiomas and the frankly anaplastic, highly cellular haemangioendotheliosarcoma (Robbin, 1962). Generally angiosarcomas encountered in the body fall in two groups, one with low malignancy while the other has a frank sarcomatous appearance with rapid metastases (Jaffe, 1958). In the present case there was no other complaint except the growth and the evidence of metastases was absent. Exact prognosis of the case could not be established as the patient did not turn up after radiation therapy.

Inclusion of so many names for the tumour itself denotes the varied morphological picture as well as the basic origin of the tumour. The etiopathogenesis of the tumour as revealed by Stout (1943) shows that it can arise from the endothelium by a mechanism similar to that of formation of new blood vessels in granulomatous tissue or from a malignant change of haemangioma or haemangioendothelioma which is very rare (Evans 1956). Jaffe (1958) however, has a different opinion that angiosarcoma never arises from a prexisting benign haemangioma.

It is a radiosensitive tumour but the best cure can only be given in case of an angiosarcoma of an extremity by radical amputation (Aird, 1958).

Summary. A case of angiosarcoma occuring in thc forearm of a boy aged nine years is reported herewith. Complete removal of the tumour followed by radiation therapy was done as a treatment of choice in this case.

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REFERENCES

1. Aird I.: A Companion in Surgical Studies, 2nd Ed. London. E. & S. Livingstone Ltd, 1958, P. 190.
2. Evans, R. W.: Histological Appearances of Tumours, London, E. & S. Livingstone Ltd. 1956, p. 61.
3. Jaffe, H. L.: Tumour and Tumorous Conditions of the Bones and Joints, 1st Ed. Philadelphia, 1958 p. 341.
4. Robbins, S. L.: Text Book of Pathology with Clinical Application, 2nd Ed. Philadelphia, W. B. Saunders Co. 1962, p. 471.
5. Stout, A. P.: Haemangioendothelioma, A tumour of Blood Vessels, Featuring Malignant Endothelial Cells, Ann. Surg., **118**, 445, 1943.