Giant hemangioma of shoulder

GIANT HEMANGIOMA OF SHOULDERS

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ABSTRACT

Hemangiomas are the commonest benign vascular tumors. They can occur in any tissue but are common in the skin. Massive enlargement of hemangiomas is uncommon. We present a rare case of giant hemangioma of the shoulder with mixed features in 9 year old male child.

Key words: Giant hemangioma, shoulder, mixed

INTRODUCTION

Hemangiomas are the most common tumors of infancy. They are classified as capillary, cavernous or mixed lesions. Most hemangiomas are superficial lesions, but they may also occur internally, notably in organs such as the liver. Hemangiomas are absent at birth or present as cutaneous marks. Their incidence in newborns is 1-3% and increases to 10% by age of 1 year. They grow rapidly beyond the child’s growth rate for 6-8 months followed by slow regression often resulting in complete regression. Head and neck is the commonest site of hemangiomas followed by trunk and extremities. We report a rare case of giant hemangioma with mixed features in the superficial tissue of the shoulder in 9 year old male child.

CASE REPORT

A nine year old boy presented to the plastic surgery outpatient clinic with a growth in the left shoulder noticed seven years back, progressively increasing in size with restriction of movements at the shoulder joint. The mass was diffuse, bluish, soft, non tender with stretching of overlying skin. No pulsations or thrill was noted. Ultrasonographic examination of the revealed a large hyperechoic mass in the subcutaneous plane. No other significant abnormalities were noted clinically. Hematological parameters and radiology of thorax and abdomen were within normal limits. A provisional clinical diagnosis of vascular lesion, probably hemangioma was made. FNAC was not done as it was suspected to be a vascular lesion.
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The mass was excised and submitted for histopathological examination. On gross examination, the mass measured 9x7x5cms, cut section revealed multilobated grey white to yellow areas admixed with areas of haemorrhage (Figure 1). Histopathological examination confirmed it to be hemangioma with cavernous and capillary features (Figure 2, Figure 3). The features of Cavernous hemangioma were more in the papillary dermis, whereas deep dermis showed mixed features. The vessel lumina showed erythrocytes and hemosiderin(Figure 4, Figure 5). Differential diagnosis for a mixed hemangioma are commonly pyogenic granuloma and uncommonly Kaposi sarcoma.

Figure 1. Cut-section of specimen showing multiple tiny cystic areas with hemorrhagic areas.
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Figure 2. Papillary dermis showing large cavernous blood vessels. H&E 10x

Figure 3. Deep dermis showing mixed capillary and cavernous areas. H&E 10x
Figure 4. Deep dermis showing large dilated blood vessels with erythrocytes in lumen. H&E 10x

Figure 5. Deep dermis showing areas of dilated blood vessels with hemosiderin pigmentation amidst erythrocytes. H&E 10x
DISCUSSION

Hemangioma is a benign self involuting tumor of endothelial cells. It is derived from the greek word *haema* meaning ‘blood’, *angeio* meaning ‘vessel’ and *oma* meaning ‘tumor’. Giant hemangioma is defined as hemangioma of size more than 4 cms. It is common in females of 4th to 5th decades. Giant hemangiomas are more common in the internal organs and have been very commonly described in the liver. Rare cases in Cerebrum, bladder and rectum have been described. Most of the giant hemangiomas described in the shoulder region involve the deeper soft tissue.

The cause of hemangioma is currently unknown. Several studies have suggested the importance of estrogen signaling due to tissue hypoxia in hemangioma formation. Cavernous hemangiomas are infrequent compared to capillary hemangiomas. They are usually larger and less circumscribed, and they more frequently involve deep structures. Coloration is reflective of the location of the lesion, with variance from a vivid crimson color in those of the superficial dermis, to a bluish hue, overlain by normal skin, in those situated in the lower dermis. Dilated veins or telangiectases may be seen on the surface of a deep hemangioma.

Superficial hemangiomas exhibit “capillary” proliferation, deep hemangiomas exhibit “cavernous” configurations, and a hemangioma that resides in the superficial and deep dermis exhibits “mixed capillary and cavernous” components. Superficial hemangiomas are found within the papillary dermis, whereas deep hemangiomas are located in the reticular dermis and subcutaneous fat.

Hemangiomas may be a manifestation of systemic syndrome or may occur as the only clinical abnormality. The syndromes associated with cavernous hemangiomas are Kasabach-Merritt syndrome, PHACE syndrome (posterior fossa abnormalities, facial hemangiomas, arterial abnormalities, cardiovascular defects, and eye abnormalities), blue rubber bleb nevus syndrome and Maffucci syndrome (dyschondroplasia with vascular hamartomas).

Vascular tumors form an important clinical entity to surgeons because of the functional and cosmetic complications (dependent on location, size or rapid proliferating rate) associated with them as well as transformation to malignancy in certain benign lesions. Giant hemangiomas may cause some life-threatening complications such as congestive heart failure and coagulopathies including severe thrombocytopenia, microangiopathic hemolytic anemia and bleeding such as Kasabach-Merritt syndrome.

Cavernous hemangiomas show essentially no tendency to regress and may even be locally destructive by virtue of the pressure they exert on neighboring structures. Consequently, most cavernous hemangiomas require surgery, in contrast to their capillary counterparts.

Most hemangiomas do not require intervention and 90% undergo rapid involution before the age of 9 yrs. Active intervention is required in those cases, which do not show involution and in those with local or systemic complications. Non-surgical measures include sclerotherapy, laser therapy, compression therapy and intralesional injection of steroids, interferon or bleomycin. Embolization is used for large lesions or before preparation of surgical excision. Surgical excision is done when it is non-responding or complications occur. In giant/large hemangiomas or with life threatening complications, multi-modality treatment may be necessary.
REFERENCES