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Case Report

Surgery Section

A Large Haemangioma Mimicking Soft Tissue Sarcoma over the Chest Wall: An Oncological Surprise

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ABSTRACT

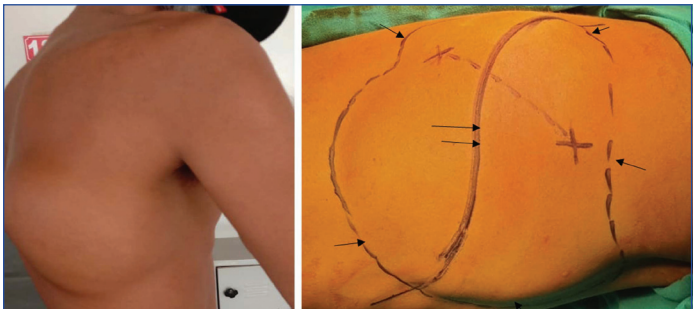
Haemangiomas are tumours which takes origin from blood vessels. Extremities are most common site for occurrence of haemangiomas. Chest wall haemangiomas are rare and they may mimic soft tissue sarcoma. Biopsy or attempt of surgical excision before imaging may lead to bleeding which can be life threatening. A 40-year-old male patient presented to the Outpatient Department (OPD) with large, painless swelling on the left side of back. On examination, 25×15 cm non tender, firm in consistency swelling was noted which was fixed to underlying muscle. Magnetic Resonance Imaging (MRI) showed multiple dilated sinuses with blood suggestive of haemangioma/arteriovenous malformation. Patient underwent excision of haemangioma without any complication. Histopathological examination showed thin-walled blood vessels with proliferating vascular space separated by fibrous stroma suggestive of capillary haemangioma. Patient had no recurrence after one year follow-up.

Keywords: Arteriovenous malformation, Congenital, Feeding vessel

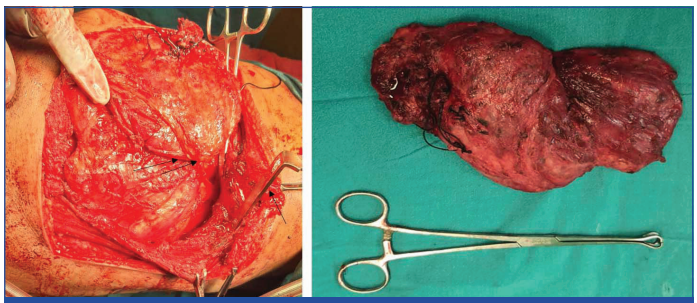
CASE REPORT

A 40-year-old male patient presented with a large, painless swelling on the left side of chest wall in Surgical Oncology OPD, which was present for the past six years. It was initially small and then gradually increased in size. Patient also had history of attempted biopsy by local surgeon twice from the swelling which resulted in bleeding for which procedure was abandoned. On examination, approximately 25×15 cm, non tender, firm in consistency, non mobile swelling was noted. There was no fluctuation, skin was pinchable over the swelling and it was adherent to the underlying muscles [Table/Fig-1]. The MRI showed 25×15 cm swelling with multiple dilated sinuses with blood suggestive of haemangioma/arteriovenous malformation. The swelling was below the skin and subcutaneous tissue with a part of swelling lying below the latissimus dorsi muscle medially. The intercostal muscles formed the base of swelling with maintained fat plane. On doppler, feeding vessel was noted on the medial side of swelling which ran across the whole length of swelling [Table/Fig-2].

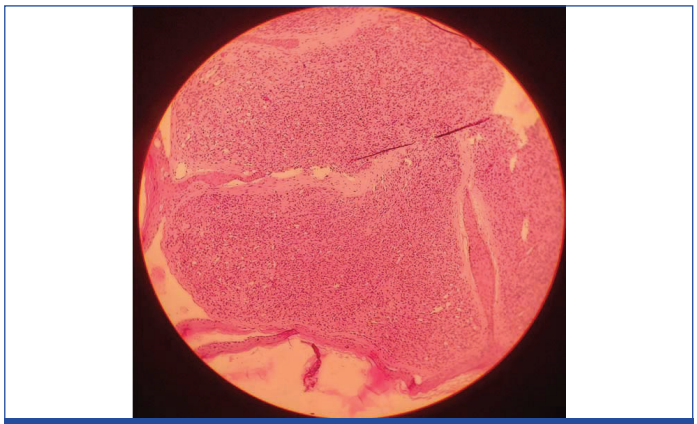
Patient underwent complete excision of swelling under general anaesthesia [Table/Fig-3,4]. There was no intraoperative or postoperative complication. Histopathological examination showed thin walled blood vessels with proliferating vascular space separated by fibrous stroma suggestive of capillary haemangioma. There was no atypia or mitosis suggestive of malignancy. Patient had no recurrence after one year follow-up [Table/Fig-5].



[Table/Fig-1]: Clinical picture of swelling present over the back.
[Table/Fig-2]: Picture showing extent of lesion (six single arrows) and feeding blood vessel running across the swelling seen on doppler (double arrows). (Images from left to right)



[Table/Fig-3]: Intraoperative picture showing haemangioma separated from the latissimus dorsi muscle above (single arrow) and chest wall below (double arrow).
[Table/Fig-4]: Gross specimen after excision of swelling. (Images from left to right)



[Table/Fig-5]: Histopathological examination showed thin walled blood vessels with proliferating vascular space separated by fibrous stroma suggestive of capillary haemangioma (H&E, 10x).

DISCUSSION

Haemangiomas occurring on the chest wall are rare. They may originate within the soft tissue or from the ribs [1,2]. Haemangiomas are tumours which contribute to only 7% of all soft tissue tumours [3,4]. Haemangiomas may be congenital in origin, occurring due to abnormal sequestration of blood vessels within tissues during embryonic phase [5]. Whereas another school of thought is that trauma may be the triggering factor [5]. Though, the tumours may show mitotic activity and surrounding tissue infiltration but in nature they are always benign and never cause metastasis [6].

Haemangiomas over the chest wall may mimic a soft tissue sarcoma. Attempt of biopsy or excision may cause bleeding. Therefore, imaging should always be done before attempting biopsy or excision. If imaging shows features of haemangioma/arteriovenous malformation, adequate precaution should be taken before attempting excision/biopsy. On MRI, vascular tumours shows multiple dilated sinuses with blood which distinguishes it from soft tissue tumours [7]. Magnetic Resonance (MR) angiography/doppler helps in localising the feeding vessel into tumour [7].

Surgical excision of tumour with margin is the treatment of choice for haemangiomas [8]. Preoperative embolisation can be done to decrease the vascularity and volume of tumour before definitive surgical excision [8]. Incomplete excision increases the chances of recurrence and secondary bleeding [8]. The chest wall resection may be needed in cases of intercostal haemangiomas and haemangiomas infiltrating ribs [9]. Reconstruction with mesh is required when the resection involves more than four ribs, if the defect is more than 5 cm and resection of sternum has been done [9].

CONCLUSION(S)

Chest wall haemangiomas are rare tumours and mimics soft tissue sarcomas. Imaging and adequate precaution should always be taken before considering a biopsy or excision of tumuor as it may lead to torrential bleeding. Complete surgical excision with adequate margin is the treatment of choice. A definitive diagnosis preoperatively may not be possible as biopsy increases the chances of haemorrhage.

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