

# Venous Hemangioma of the Breast: Report of an Unusual Case

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## ABSTRACT

Vascular tumours of the breast are uncommon and they include angiosarcomas and hemangiomas. Hemangiomas are rare and angiosarcomas are more common than hemangiomas of the breast. Here, we are reporting a case of a 19-year old girl who presented with a non tender palpable lump in the left breast since 15 days. Mammography and FNAC were inconclusive and the

diagnosis was established on the basis of histopathology. This case was reported to highlight that a single diagnostic modality may not be sufficient to diagnose a case of hemangioma. Though it is a benign lesion, a histopathological evaluation is necessary for its accurate diagnosis and to rule out underlying malignancy, if any.

**Key Words:** Hemangioma , Breast , Benign tumour, Histopathology

## INTRODUCTION

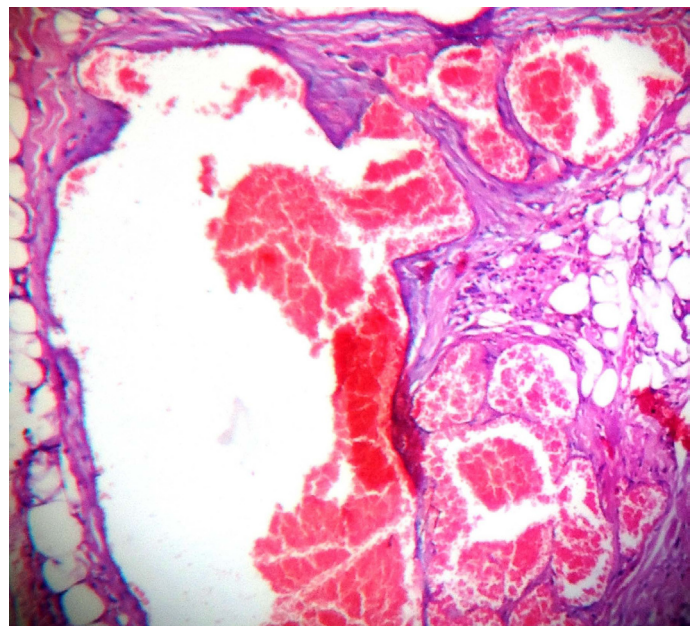
Vascular tumours of the breast are rare and most of them can be classified as angiosarcomas or hemangiomas [1]. Hemangiomas are benign tumours that are rarely seen in the breast, although they have been found incidentally on the microscopy of biopsy material which had been sent for other indications. Breast hemangiomas are reported to be found in ~1.2% of all the mastectomy specimens and 11% of all the post-mortem specimens. The hemangiomas that occur within the breast are most commonly of the cavernous type. While the lesions are most often superficial within the breast tissue, there is no recognised predilection towards any particular location within the breast.

On mammography, the findings are non-specific and they include a normal mammogram or a sonographic finding of a well circumscribed hypo echoic or hyper echoic mass with or without calcification [2]. Complete excision and examination is required for the diagnosis of any benign vascular lesion in the breast.

## CASE REPORT

A 19-year old girl visited the surgery OPD with complaints of a non tender palpable lump in the left breast since 15 days. She was nulliparous and gave no other history of trauma, nipple discharge, fever or any prior breast disease. On examination, a single, well defined, mobile, firm mass, which was 3 cm in diameter, was found in the upper outer quadrant of the left breast. A clinical diagnosis of lipoma was offered.

Mammography showed a well circumscribed isodense mass in the left breast. Repeated FNAC yielded only blood. The possibility of a vascular lesion was suggested and a complete excision of the lump was done. We received a globular mass cut section, which showed red brown areas. Haematoxylin and eosin sections showed large cavernous vascular channels of smooth muscles which were filled with blood and focal areas of adipocytes, which were suggestive of a subcutaneous hemangioma [Table/Fig-1]. There was no recurrence after 6 months of follow up.



**[Table/Fig-1]:** Section shows large cavernous vascular spaces filled with blood H&E 20x

## DISCUSSION

Hemangiomas are benign vascular tumours that are usually identified incidently during the histological examination of specimens of lumpectomy or mastectomy [3]. They occur in patients of the age group of 18-82 years [4].

The mammographic appearance of hemangiomas is as macrolobulated lesions and they may contain calcification. Our case did not show any calcification and the findings were nonspecific. Most often, they are located superficially, either subdermally or in the subcutaneous tissue. Rarely may hemangioma be intraparenchymal [5]. Oval lobulated lesions with poorly defined borders have been reported [6]. However, because of their typical pattern of enhancement, magnetic resonance imaging may be useful in the diagnosis of breast hemangiomas [7].

The imaging features appear to be inconclusive for the diagnosis of most of the hemangiomas [6]. Fine needle aspiration cytology too is inconclusive and a complete excision is required for the diagnosis.

They are grossly described as well circumscribed masses which are red brown and spongy. Most of the hemangiomas are well circumscribed grossly, but microscopically, they blend well with the breast parenchyma [8]. Microscopically, there are two common types of hemangiomas: capillary and cavernous. Most of these have vascular channels which are separated by fibrous septa, with extensive fibrosis and sometimes with phleboliths [3]. Capillary hemangiomas are composed of capillary sized blood vessels and cavernous hemangiomas have large vascular channels. Cavernous hemangiomas are more common than the capillary hemangiomas [4]. Hemangiomas are sub-divided into four types: perilobular, parenchymal, non parenchymal or subcutaneous and venous. Perilobular hemangiomas occur in the extralobular stroma in the form of microscopic lesions. In parenchymal hemangiomas, the individual vessel varies in size from capillary to cavernous. Venous hemangiomas form large cavernous vascular channels, with disorderly vascular proliferation. Sub-cutaneous hemangiomas are located superficial to the anterior pectoral fascia in the sub-cutaneous fat [9]. Histologically, hemangiomas should be differentiated from pseudoangiomatous stromal hyperplasia (PASH) which do not have a true endothelial lining and do not show luminal RBCs [4]. Furthermore, venous hemangiomas of the breast are rarer, with only few cases being reported [9]. Hemangiomas, although they are not known to be precursors of angiosarcomas, follow up imaging techniques are recommended for their diagnosis

and wide local excision is necessary to rule out the possibility of underlying angiosarcoma [10].

In conclusion, venous hemangioma of the breast is uncommon and we should be aware of this entity. Imaging findings and fine needle aspiration cytology are inconclusive in most of the cases and this may lead to a diagnostic dilemma. Histopathology is essential for a definitive diagnosis.

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