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Case report

PRIMARY HEMANGIOMA OF A SUBMENTAL LYMPH NODE –A RARE ENTITY

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ABSTRACT

Primary vascular tumors occurring in lymph nodes are extremely rare. Nodal hemangiomas are benign vascular tumors that can occur at any age and seen mostly in females. It is usually asymptomatic, affects only one node, and does not recur. Four histologic types of hemangioma have been identified: capillary/cavernous, lobular capillary, cellular, and epithelioid. This case has been reported for its rarity

Key words: Hemangioma, Lymph node, Asymptomatic

INTRODUCTION

Benign vascular tumors arising primarily in the lymph nodes are rare.^[1,2,3] There have been few case reports in literature.^[1-10] Although benign nodal vascular proliferations are uncommon, identifying these entities can help to avoid misdiagnosing them as malignant vascular tumors, which occur more often within lymph nodes.^[1,2,3] Hemangioma is one of the four types of benign nodal vascular tumors.^[4,6] Although hemangioma is common in skin, mucosa, and soft tissue, its occurrence in lymph nodes is extremely rare. This case is very rare with few cases being reported worldwide and brings to notice the occurrence of such tumors in a lymph node also. According to various published articles to date, only 20 cases have been reported so far in the English language medical literature.^[4, 6] We are herewith presenting another similar case.

CASE REPORT

A 45 year old woman came to the hospital with an asymptomatic nodular mass in the submental region present since the last six months. No other significant clinical findings were present. HIV test was

seronegative. The swelling was freely mobile, painless, measuring 2x1.5cm. Intraoperatively the mass was easily enucleated with no evidence of any haemorrhage or bleeding in the field of operation. Gross and Microscopy: The well encapsulated nodular mass measured 2x1.5x1cm Cut section showed myxoid appearance. (Figures 1 and 2). Under low magnification it showed a well encapsulated nodular mass comprising of lobules of small capillary vessels. Occasional larger vessels were seen. The vessels were lined by plump endothelial cells with some of them showing red blood cells within their lumen. Most of the nodal parenchyma was effaced by the vascular lesion with remnants of the residual lymphoid aggregates underneath the capsule. The lobules of tumor tissue were separated by pink edematous to eosinophilic proteinaceous material. There were no significant neutrophilic infiltrate, areas of necrosis, cytological atypia or any significant mitotic activity. The endothelial cells in the tumor showed immunopositivity for CD31, CD34 confirming the vascular nature of the tumor.

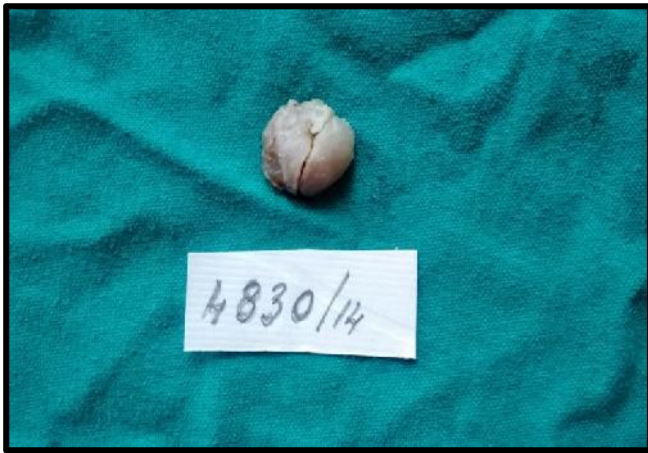


Fig 1: Well encapsulated nodular mass



Fig 2: Cut section shows well encapsulated lesion showing edematous to myxoid areas

DISCUSSION

Hemangiomas most commonly occur in the skin but can occur in all internal organs.^[2,3] Vascular tumors of lymph node are rare.^[1-10] The age reported in the literature for presentation of nodal hemangiomas varies, ranging from 4.5 to 75 years.^[4] There is a female predominance, and usually only a single node tends to be involved. Hemangiomas occur in both peripheral and more centrally located lymph nodes, such as supraclavicular, submental, cervical, axillary, common iliac, pelvic, inguinal, and oral soft tissue.^[4,5] Intranodal hemangiomas present as an asymptomatic, solitary palpable lymph node, or they may be an incidental finding.^[4,5] Some nodal hemangiomas are diagnosed incidentally when lymph nodes are surgically removed in a radical mastectomy for breast cancer or radical hysterectomy for endometrial adenocarcinoma, without any antecedent radiotherapy.^[4,6,7] Grossly, the size of the involved lymph nodes ranges from 2 to 35 mm.

Microscopically, four histologic types have been identified: capillary/cavernous, lobular capillary, cellular, and epithelioid. Capillary/cavernous hemangioma is more often centered on the lymph node hilum or medulla with well-preserved nodal parenchyma and is either, a well-defined or poorly defined mass of closely packed capillaries or cavernous vessels lined by flat endothelial cells, and which can be empty or filled with blood. The lobular capillary type can almost replace the entire nodal parenchyma and has an appearance similar to a pyogenic granuloma. Our case seems to be the lobular capillary type.^[4,5,6] The cellular type is composed of closely packed, nearly solid to rarely canalized, vascular channels that can be outlined by periodic acid-Schiff and reticulin stains. The epithelioid type is characterized by plump endothelial cells. In all types, no cytologic atypia, necrosis, mitoses, or extravasated erythrocytes are present. The endothelial cells in hemangioma show immuno positivity for smooth muscle actin, CD31, CD34, and factor VIII-related antigen. Our case was identified as a lymph node because of the presence of a well defined capsule, remnants of lymphoid aggregates with replacement of normal architecture, hemangiomas being unencapsulated tumors.^[5]

Other vascular tumors and tumor-like conditions of the lymph nodes include lymphangioma, epithelioid vascular neoplasms, bacillary angiomatosis, vascular transformation of the of the sinuses, and Kaposi's sarcoma from which it can be easily differentiated. Surgical excision is curative in primary nodal hemangioma. Although follow-up has not been reported in all cases, in those with follow-up, no recurrences have been documented for nodal hemangiomas

CONCLUSION

Hemangiomas are benign and, therefore, must be distinguished from malignant vascular tumors that usually involve lymph nodes, especially Kaposi's sarcoma which are more common in AIDS.

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Conflict of interest: Nil

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