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VASCULAR GROWTH OVER INGUINAL FOLD

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ABSTRACT

Hemangioma is a benign growth of skin. Involvement of external genitalia, scrotum and vulva has been recorded representing approximately 1% of all cutaneous hemangiomas. Cavernous hemangiomas(CH), are benign vascular lesions which commonly occur in skin, liver and superficial or deep soft tissues It presents as purple, single, globular or multilobular tumors or as flat or slightly elevated strawberry nevus of infant. Histopathologically it consists of large, dilated hyaline vascular channels arranged in diffuse patterns. Wide local excision with overlying skin appears to be the treatment of choice, since it prevents further increase in size, rupture or significant hemorrhage. A 45year old housewife presented with single lesion over groin. It was multilobulated, pedunculated, soft and erythematous growth of about 3 x 4cm size. Histopathology shows changes favouring cavernous hemangioma, whether it is a sinusoidal hemangioma or not which is a distinctive subset of CH needs to be considered.

Key Words – Hemangioma, Vascular tumour, Inguinal Fold

INTRODUCTION

Hemangiomas are the most common tumors of infancy and are characterized by a proliferating and involuting phase. They are seen more commonly in whites than in blacks, more in females than in males with a ratio of 3: 1. Recently Rosai, Ackerman (2004) stated that hemangiomas can occur in any organ, but its most common location is the skin.[1]

Cavernous Hemangioma (CH) also known as cavernomas, are benign vascular lesions which commonly occur in skin, liver and superficial or deep soft tissues and are composed of dilated vessels which are filled with blood. Commonly seen over head and neck which is about 5% of the vascular malformations diagnosed by angiography and histologically verified.[2] having dilated hyaline vascular channels which are arranged in diffuse patterns.Most hemangiomas involute with time, but a certain small percentage do not, which may present with complications that require treatment in the form of surgical removal. A case of 45 year old female with single growth over inguinal region since 2 months is presented whose histopathology proved it to be CH.

CASE REPORT

A 45year old housewife presented with single lesion over groin since 2 months. Gradually increasing, it has reached to the present size. No pain or bleeding was present from the lesion. No other systemic complaints or past history present. On examination single multilobulated, pedunculated, soft and erythematous growth of about 3 x 4cm size present over left inguinal fold [Figure-1]. No lymhadenopathy was present. Hemogram, liver function test, renal function test, Ultrasound of abdomen and pelvis was normal. Excisional biopsy was done and sent for histopathology.

Section showed hyperkeratosis, hypergranulosis and acanthosis of epidermis. The subepithelial tissue showed many dilated and congested blood vessels with areas of necrosis and mixed inflammatory infiltrate comprised of

Fig 1. Single multilobulated, pedunculated, soft and erythematous growth over left inguinal fold.

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polymorphs, lymhocytes and plasma cells. The vessels were of variable size, small to large vascular spaces lined by discontinuous endothelial cells. At places intercommunication was seen. Lobules of capillary proliferation with prominent pericyte was seen. Perivascular areas consist of hypocellular eosinophilic material [Figure-2 a & b]. Changes were suggestive of benign vascular tumour over left inguinal fold favouring cavernous hemangioma.

DISCUSSION

Vascular tumours of skin can be benign or malignant. The benign tumours include hemangiomas, vascular ectasia, and bacillary angiomatosis while malignant tumours include angiosarcomas and hemangiopericytomas. Most hemangiomas are solitary, but when multiple or affecting a large segment of the body, the condition is known as multifocal angiomatosis. This occurs more commonly in whites than in blacks. Hemangiomas as benign vascular neoplasms that have a characteristic clinical course with early proliferation followed by spontaneous involution and was the most common tumors of infancy. Considerable debate exists as to whether these lesions are neoplasms, hamartomas or vascular malformations.[3]

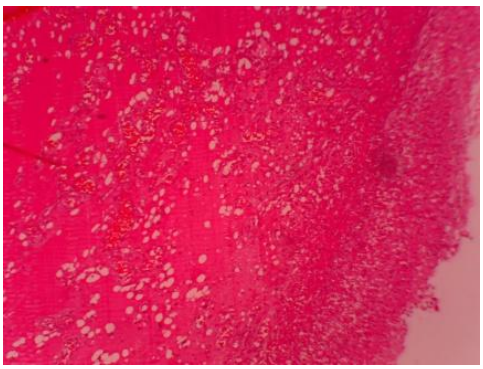

Fig 2. (a)

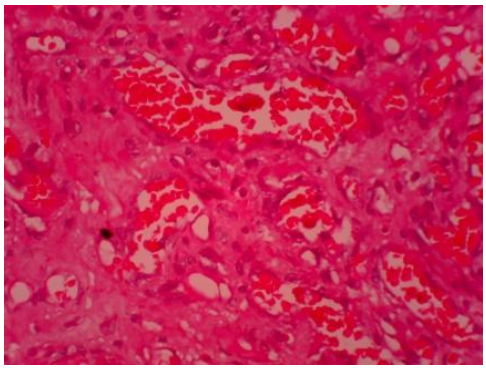

Fig 2. (b)

Fig 2. Many dilated and congested blood vessels of variable size with areas of necrosis and mixed inflammatory infilterate comprised of polymorphs, lymhocytes and plasma cells.(a)10x(b)40x H& E stain

Hemangiomas apart from involving skin can also occur in extra-cutaneous sites, including the liver, gastro-intestinal tract, central nervous system, pancreas, gall bladder, thymus, spleen, lymph nodes, lung, urinary bladder and adrenal glands.

Christopher.D.M.Fletcher (2003)[4] classified vascular tumour where sinusoidal hemangioma is a variant of cavernous hemangioma. Jamal T Hamdi (1994) reported that cavernous hemangiomas usually present in late childhood or early adulthood. [5]

Cavernous hemangiomas (CH) also known as cavernomas, are benign vascular lesions which commonly occur in skin, liver and superficial or deep soft tissues. The strong gender predilection of hemangioma towards female over male infants [3:1 or more] suggests hormonal effects in hemangiogenesis.

CH are composed of dilated vessels which are filled with blood. The incidence of CH of the head and neck is about 5% of the vascular malformations diagnosed by angiography and histologically verified.[2] It is commonly seen in 3rd to 5th decade of life, but can be seen in children as well. It typically presents as soft, poorly defined tumor which readily blanch with compression, giving a characteristic “bag of worms” feel. They appear on the skin surface as purple, single, globular or multilobular tumors or as flat or slightly elevated strawberry nevus of infant. They can arise virtually anywhere in the body and are considered to be benign neoplasms without any malignant transformation.[6]

The Central Nervous System (CNS) cavernous hemangiomas are rare and they are composed of closely packed, large, sinusoid – like vascular channels with little or no intervening nervous tissue. They can occur anywhere in the CNS, but they favour the cerebral hemisphere In the spine, cavernomas are found far more frequently in the vertebral bodies and when they involve the intradural space, they occur primarily within the spinal cord. An intradural, extra medullary location is very rare, with only 23 cases being reported in the literature.[7]

CH needs to be differentiated from capillary hemangioma .They are large in size, diffuse and located deeper while Capillary hemangioma appears as a red-blue multinodular mass with a thin overlying skin. Unlike the, capillary hemangioma they can be disfiguring and do not tend to regress, leading to spontaneous bleeding and ulcerations.

Hemangiomas can be divided histologically into capillary (small vessels), cavernous (large vessels) and mixed types.[3] Capillary hemangiomas have abundant vessels approximately 10-100 microns in diameter with walls 1-3 cells thick. Cavernous hemangiomas have a much higher number of cells present. Distinct lumina are still identifiable.

CH histologically, present with large irregular spaces filled with blood in the lower dermis and subcutaneous tissue. These spaces are lined by a single layer of endothelial cells and fibrous wall of varying thickness. A capillary hemangioma consists of a myriad of small vessels of capillary size while cavernous angioma consists of large vessels with cystically dilated lumina and thin walls. They often show thrombosis, perivascular hemosiderin deposition and calcifications.[8] Most of the cavernous hemangiomas originate from the abnormal development of the periradicular vessels. CH containing dilated intercontecting thin walled channels with occasional pseudopapillary projectionshave been designed as sinusoidal hemangioma.

A number of growth factors including vascular endothelial growth factor [VEGF], basic fibroblast growth factor [bFGF], transforming growth factor-beta [TGF-beta] and interleukin 6 [IL6] have been demonstrated as regulators of angiogenesis. A number of cellular markers have been outlined such as TIMP-l, bFGF, proliferating cell nuclear antigen, type IV collagenase and urokinase.

Hemangioma of external genitalia represents approximately 1% of all cutaneous hemangiomas. Females are affected 3to 5 times more frequently than males.[9]

Lesions over scrotum usually appears within two decades of life, but may develop at any age Either side of scrotum is involved but lesions are usually unilateral.[10] Giant cavernous hemangioma over vulva has been reported.[11] Genital hemangiomas may require surgical treatment if they become symptomatic. Wide local excision with overlying skin appears to be the treatment of choice, since this prevents further increase in size, rupture or significant hemorrhage.

Sinusoidal hemangioma is a distinctive subset of a group of CH first described by Calonje and Fletcher[12]in 1991. Clinically, it develops in middle-aged adults, predominantly in females and presents as a solitary, painless, bluish subcutaneous nodule. Although anatomic distribution is wide, the tumor presents most frequently on the extremities, trunk, and often on the breast and scalp. Histologically, it is characterized by a well-circumscribed lobulated architecture composed of dilated interconnecting; thin-walled vascular channels that frequently show a pseudopapillary pattern and a back-to-back arrangement with scanty intervening stroma.

Our patient presented with a vascular growth in left inguinal fold showing changes of CH in histopathology without any complication and deep infiltration which is not reported till date, whether to consider it a sinusoidal hemangioma or not needs consideration.

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