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CASE STUDY

ANGIOLIPOMA OF LABIA MAJORA: A RARE CASE REPORT

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Abstract: Angiolipoma is a benign, soft tissue tumor. It is a variant of lipoma with a prominent vascular component consisting of only 6-7% of all lipomas. Though conventional lipomas are commonly found over the neck and upper back, shoulders, abdomen, buttocks, and proximal portions of the extremities, vulval lipomas are very rare and fewer than 70 cases have been reported in world literature. Herein, we report a case of angiolipoma in a 35 years old female in labia majora on account of its rarity with a review of literature. A clinical diagnosis of lipoma was provided to usby the surgeon and on the basis of histopathological examination of the excised mass, a diagnosis of angiolipoma was conferred upon. Our case report describes a rare variant of lipoma, at an uncommon location and also highlights the importance of histopathological examination in arriving at the final diagnosis.

KEYWORDS: Angiolipoma, labia majora, histopathology, benign, vulva

INTRODUCTION:

Angiolipoma is a benign, soft tissue tumor first described by Bowen in 1912. It was established as a specific entity in 1960 by Howard and Helwig [1,2,3]. Angiolipoma is a variant of lipoma with a prominent vascular component consisting of only 6-7% of all lipomas [4]. Angiolipomas are relatively common in young adults and usually appears in late second to early third decade of life. However, vulval lipomas may occur at any age and have been identified in various age group ranging from infancy to ninth decade [5]. They may frequently present as a mass for number of years, but increase in size will speed up the concern for further evaluation and gynecological consultation [6]. We present here, a rare case of angiolipoma in labia majora which is a relatively uncommon location in a 35 years old female. Our case report emphasizes on the pivotal role played by histopathological examination in rendering us with the final diagnosis and it adds on to the existing literature in account of its rarity.

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CASE REPORT:

We received an excision biopsy specimen of a 35 years old female patient to the laboratory for histopathological examination. The location of the mass was in labia majora and a clinical diagnosis of lipoma was provided on the requisition form sent along with the specimen. However, no other clinical history or radiological findings were furnished. On gross examination, the mass measured 6.0x4.0x3.0 cms. External surface of the mass was globular, grey-yellow, well-encapsulated and well-circumscribed, soft in consistency. Cut surface was grey-yellow, lobulated and homogenous with tiny grey-white areas **(Figure 1).** No areas ofhaemorrhage or necrosis was evident.

Microscopic examination revealed a well-circumscribed and encapsulated benign tumor composed of predominantly mature adipose tissue with thin fibrous septae present in between along with branching capillary sized vessels. Vascularity was more prominent in the periphery and the capillaries exhibited a lobular configuration. The vessels were lined by plump looking endothelial cells. Few mast cells were noted. No nuclear atypia was noted either in the adipocytic or vascular component **(Figure 2 & 3)**. These histopathological findings were suggestive of a final diagnosis of angiolipoma. We also went ahead with immunohistochemical (IHC) marker CD 31 which highlighted the proliferating capillaries lined by endothelial cells **(Figure 4).**

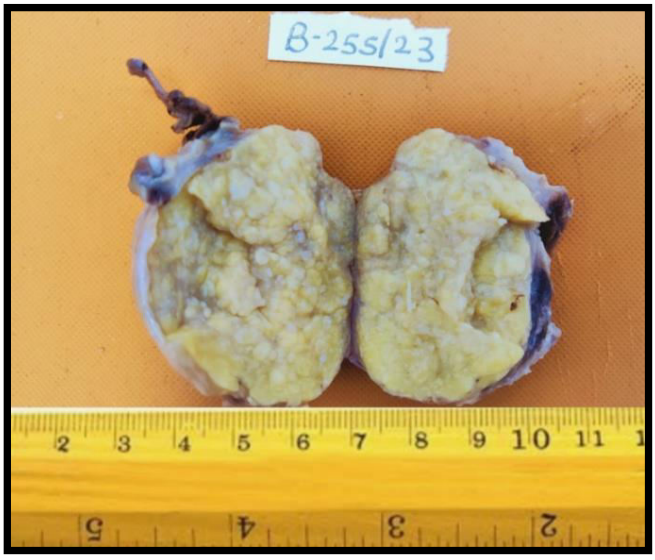

Figure 1: Gross picture of the well-encapsulated excisedmass

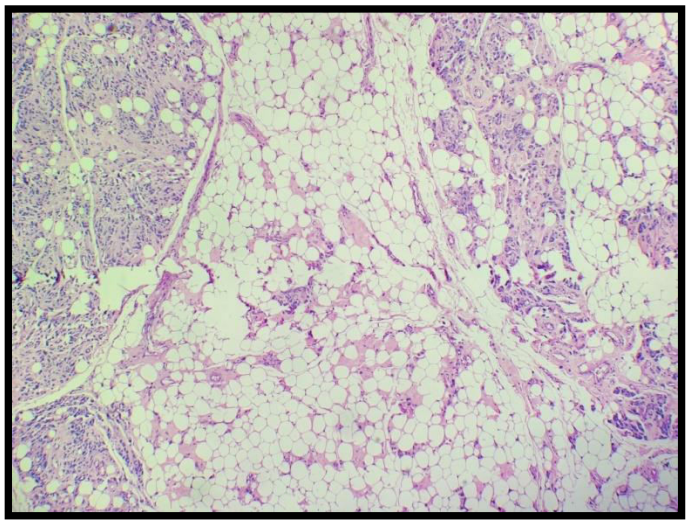

Figure 2: Histopathology showing admixture of mature adipose tissue with branching capillary sized vessels exhibiting a lobular arrangement. [Hematoxylin and Eosin, 100X]

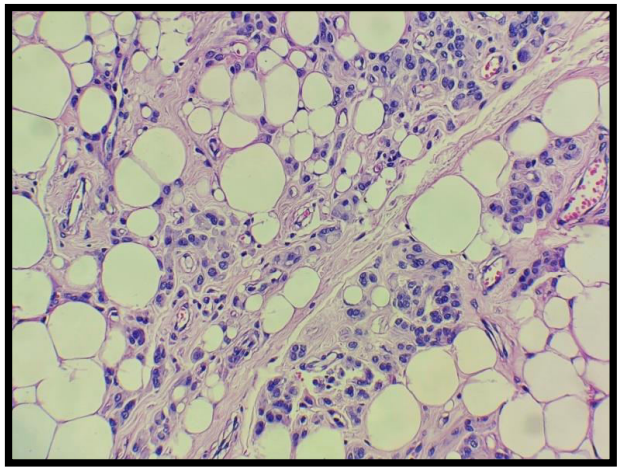

Figure 3: Histopathology showingthin walled vessels lined by plump endothelial cells amidst adipocytes. [Hematoxylin and Eosin, 400X]

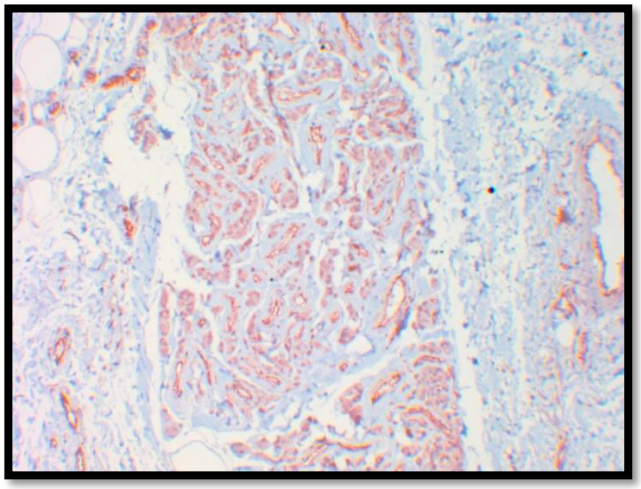

Figure 4: Immunohistochemistry (IHC) marker CD31 highlighting the proliferating capillaries lined by endothelial cells [100X]

DISCUSSION:

Vulval localizations of lipoma are rare, and very few cases have been reported [7, 8]. The first one was described by De Lima Filho et al. in 1969 [9]. This was followed in 1982 by Fukamizu et al. who reported acase of a large pedunculated vulvar lipoma occurring in an infant [10]. Junj-Tak et al. described the tendency to occur in children more on the right side [11].

Angiolipoma is seen in young persons and occur shortly after puberty often appearing on the forearm, upper arm and trunk, as a small, firm subcutaneous nodule. However, vulval lipomas may occur at any age and have been identified in various age group ranging from infancy to ninth decade [5]. In the present case report, a 35 years old female presented with a mass in labia majora. Similarly, in a case reported by Jahan et al., a 38 years old unmarried lady presented with a slow growing mass on right labia majora during two years duration. Examination revealed a pedunculated mass arising from lower portion of labia majora [12]. Angiolipomas present as encapsulated yellow nodules with a more or less pronounced reddish tinge. However, in our case though the tumor on gross examination was well-encapsulated and grey-yellow but it did not exhibit the reddish tinge.

Histologic guidelines for diagnosis of angiolipomas are based on the following criteria [13]:
1. Well-encapsulated (non-infiltrating angiolipomas) or poorly encapsulated
(infiltrating angiolipomas).
2. Evidence of 50% mature adipocytes in the tumour.
3. Interspersed angiomatous proliferation in the tumour.
4. Fibrinous micro-thrombi.
5. Absence of other mesenchymal elements (smooth muscle) or pleomorphism.

Microscopy reveals these nodules to consist of mature fat cells separated by a branching network of small vessels; the proportion of fatty tissue and vascular channels varies, but usually the vascularity is slightly more prominent in the subcapsular areas. Late forms of this tumor frequently undergo perivascular and interstitial fibrosis. Characteristically, the vascular channels contain fibrin thrombi, a feature that is absent in ordinary lipomas [1]. Our case had similar microscopic findings except for the fibrin thrombi in vessels. Mast cells are often conspicuous in angiolipomas, another feature that distinguishes this tumor from the usual lipoma. However, in our case, only few mast cells were noted.

Angiolipomas reveal neovascularity which resembles malignancy. Most of these vulval lipomas are diagnosed clinically but histopathological analysis is necessary to arrive at a definitive diagnosis. Immunohistochemical (IHC) stains are generally not needed for diagnosis [14]. However, few of the IHC markers which can be used are CD-31, CD-34 (for vascular component) and S-100 protein (for adipocytes). As long as angiolipomas do not increase in size and remain asymptomatic, no intervention is required, otherwise treatment is complete surgical excision. Other treatment options like radiation therapy and transcatheter embolization are rational in cases where adequate resection is not possible [15]. Periodic follow-up is important to look for local recurrences and also to determine the malignant potential.

Our case report is unique because of the uncommon location of this benign tumor in labia majora of a female patient. Very few cases of angiolipoma in vulval region have been documented in the literature till date. Therefore, our case report will definitely add on to the existing literature.

CONCLUSION:

Angiolipoma is a variant of lipoma with a prominent vascular component and is very rare in labia majora location. Histopathological examination is mandatory for arriving at an accurate diagnosis and also for deciding the treatment modality. Regular follow-up of the patient is also mandatory to look for local recurrences and the potential risk of malignant transformation.

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