

Vulvar Cavernous Hemangioma

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Abstract: Vulvar hemangioma is a benign tumour consisting of the vascular epithelial cells. It is very common in infants under the age of 1 year, but, very rare in adult women. It causes sexual dysfunction, pain, and cosmetic problems. We present a rare case of 20 year old unmarried, unengaged female who came with complaints of an abnormal growth on right side of vagina for 6 years which had gradually been increasing in size. She suffered with difficulty during sexual intercourse and constant discomfort. On examination, we appreciated a soft growth of about 4x5 cm, arising from right labia majora, pendunculated, non -tender with irregular margins. No punctum, discharge or inflammation could be seen. Transillumination test was positive. Among other investigations, an ultrasonography with Doppler was done which revealed that the lesion measured about 3.4x1.3x1.5 cm and it arose from subcutaneous plane of right labiamajora, showing internal vascularity. Pedicle of the lesion showed vascularity of low velocity arterial flow. No fat or calcification could be noted. Excision was done under local anaesthesia and sutured at the base. The specimen was then sent for histopathological examination, which revealed a vulvar haemangioma. Vulvar Hemangioma can seldom undergo spontaneous involution; but treatment is required for those lesions which develop progressive complaints such as pain, feeling of pressure, sexual dysfunction and cosmetic problems. In this case, surgical correction was done which had diagnostic as well as a therapeutic value.

Keywords: vulva, hemangioma

1. Introduction

- Vulvar Hemangioma is a collection of dilated blood vessels forming a benign tumor on vulva. Because of this malformation, blood flow through the cavities, or caverns, is slow. Additionally, the cells that form the vessels do not form the necessary junctions with surrounding cells & the structural support from the smooth muscle is hindered, causing leakage into the surrounding tissue. It is the hemorrhage from these vessels that causes a variety of symptoms known to be associated with this disease.. This disorder mostly affects newborns and infants under 1 year of age, but rarely occurs in adult women.
- It may be asymptomatic initially & later on may bother a woman with sexual dysfunction, pain, and cosmetic problems.
- Indian women, while facing vulvar symptoms find it difficult to approach the health care providers due to societal norms and taboos. Moreover, genital part of the female body can't be self observed easily.
- Exact cause of these vascular tumors not known. Theories postulated that it may be congenital vascular defects or traumas received in the postnatal period.



2. Case Report

A 20 year old unmarried woman presented to Dhiraj

general hospital with complaints of

- Abnormal growth on right side of labia for 6 years
- Gradually increasing in size
- Associated with difficulty during in walking. sexual intercourse and cosmetic issues.

3. On Examination

P/A: Soft, no mass felt.

Local Examination: revealed a Soft growth of about 4x5 cm, arising from right labia majora, pendunculated, easily compressible, non -tender, non pulsatile with irregular margins. No punctum, discharge or inflammation could be seen. Transillumination test was positive..A tentative diagnosis of vascular malformation was made.

The diagnosis of vascular malformations was done by taking careful history and physical examination. Venous malformations present as bluish, easily compressible non-pulsatile masses that increase in size. Venous malformations can be distinguished from vulvar varicosities whereas Vulvar varicosities are the complications of pregnancy which results from pelvic venous hypertension and appears as a grapelike cluster of veins on the vulva. It can also result from venous insufficiency

Other possibilities like Bartholin gland cyst, Vulvar lipoma. Vulvar fibroma, lymphoma was kept in mind.

4. Investigations

- **Ultrasonography with Doppler** was done which revealed that the lesion measured about 3.4x1.3x1.5 cm and it arose from subcutaneous plane of right labia majora, showing internal vascularity. Pedicle of the lesion showed vascularity of low velocity arterial flow & absence of feeder vessel No fat or calcification could be noted

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- **VAGINAL SWAB:** No organisms isolated
- Routine blood investigations including platelet count were normal

5. Management

- Hemangioma is a benign tumor, mostly small in size & asymptomatic not requiring any treatment. In the present symptomatic case diagnostic as well therapeutic surgical excision was mandatory as it was a large symptomatic tumor.
- The other therapy used for treating only large and rapidly growing tumors is medication is Prednisolone to inhibit the growth of vascular tissue & stops the tumor growth. This treatment course lasts for 28 days.
- Selective embolization rarely is used in the treatment of hemangiomas but may be required in cases of intractable bleeding, severe heart failure, large and poorly involuting hemangiomas, and as preparation for surgery

6. Intra-OP Findings

In absence of feeder vessel in the pedicle confirmed by USG, an excision was done under local anaesthesia, by clamping on the base of the pedicle near the labia majora and then raw area was sutured by vicryl no.1.



7. Histopathology

Gross examination: Revealed brownish black soft tissue measuring 3×2×2 cm. External surface was rough and irregular. On cut section brownish white homogenous areas were seen.

Microscopic examination: The section studied showed hyperplastic squamous epithelial lining along with large dilated and increased number of blood vessels which were lined by flattened endothelial cells.

Overall features were suggestive of CAVERNEOUS hemangioma

Impression: CAVERNEOUS HEMANGIOMA of labia.

8. Discussion

- The Vulva, which forms the external genitalia of the females, is surrounded by genitocrural folds, mons pubis and the anus. These structures enclose the

following - the labia majora, labia minora, clitoris, vestibule, urinary meatus, vaginal orifice, hymen, Bartholin glands, and Skene ducts. A spectrum of epithelia, from keratinized squamous epithelium to squamous mucosa are known to be present over the vulva.

- According to the morphological criteria, vulvar hemangiomas are classified as follows:
- Capillary angioma is characterized by a fast growth and consists of numerous capillary vessels;
- Cavernous hemangiomas are less common than capillary hemangiomas, typically regressing completely by age 5 in 80% of patients.¹ Cavernous angioma contains a great amount of cavities filled with blood. If blood inside the cavity is clotted, ulcers may appear and hemangioma necrosis occurs.
- The size of hemangiomas varies from very small, the size of a pinhead, to very large formations (2-5 cm in diameter). Hemangiomas localize on the skin isolated or in groups. Girls have such formations 3-4 times more often.
- Gupta et al in their study of vascular tumors of female genital tract, found The vascular tumors occurred most commonly in ovary (six), followed by vulva (two), and one each in cervix and vagina. Clinical diagnoses ranged from cystadenoma in ovarian tumors to endocervical polyp in cervical tumor. Histologically, all were benign vascular neoplasms, ranging from hemangioma (five), lymphangioma (one), lymphangiomacircumscriptum (one) to angiomatosis (two) and arteriovenous malformation (one).
- Bava et al reported a case of a vulvar hemangioma complicated by life-threatening hemorrhage not responsive to corticosteroids therapy, which showed no signs of spontaneous involution. The therapeutic approach consisted of 3 steps of selective arterial embolization followed 5 months later by surgical excision and reconstruction of the vulva. Selective embolization rarely is used in the treatment of hemangiomas but may be required in cases of intractable bleeding, severe heart failure, large and poorly involuting hemangiomas, and as preparation for surgery
- Vascular malformations can be easily diagnosed clinically and can be confirmed later by ultrasound, colour Doppler ultrasound and MRI. Ultrasounds show hypoechoic, heterogeneous lesions and give reliable and adequate information regarding the nature and extend of a superficial malformation. Colour Doppler shows mono- or biphasic flow and thus differentiate between low- and high-flow malformations. It has been proven to be a sensitive non-invasive method for the diagnosis of skin arterio-venous malformations.
- Vulvar vascular malformations do not require treatment if there is no significant symptom. In a minority of patients, it increases in size and causes life-threatening complications; functional problems or cosmetic damage. All complicated vascular malformations require treatment.
- Surgical excision is the curative procedure but can be complicated if it cause loss of motor function, nerve damage or massive bleeding.

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9. Conclusion

- Vulvar Hemangioma can undergo spontaneous involution
- All complicated vascular malformations which develop progressive complaints & complication or cosmetic awareness require treatment.
- Surgical excision is the curative procedure but can be complicated.

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