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CASE REPORT

Capillary Haemangioma of Fallopian Tube: Usual Tumor at Unusual Site

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Abstract

Fallopian tube neoplasms are uncommon, accounting to approximately 1-2% of all female genital tract neoplasms**.** Hemangiomas are the most common soft tissue neoplasms**.** We present an unusual case of capillary hemangioma of fallopian tube which was incidentally detected in a patient who underwent abdominal hysterectomy with salphingo-oophorectomy.

Keywords: Capillary hemangioma, fallopian tube, female genital tract neoplasms, benign tumors

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Introduction

Fallopian tube neoplasms are uncommon, which encounter approximately 1-2% of neoplasm in female genital tract [1]. Vascular malformations are heterogeneous in nature which are congenital defects in the vessel morphogenesis [2]. Haemangiomas of the fallopian tube are extremely rare and even more rare are capillary hemangiomas [3]. Rangins et al in 1947, first reported a case of capillary haemangioma of the fallopian tube. Since then very few cases of capillary haemangioma have been reported in the literature [4,5]. Etiology of haemangioma at female genital tract is unknown. In the present study, we present an unusual case of capillary hemangioma of fallopian tube which was incidentally detected in a patient who underwent abdominal hysterectomy with salphingo-oophorectomy for the complaints of dysmenorrhea.

Case Report

A 45 year old female visited the gynaecology outpatient department with the complaints of dysmenorrhea for past 6 months. Physical examination showed features of anemia. Per speculum and per vaginal examination were unremarkable. Routine laboratory investigations revealed decreased haemoglobin, red blood cell count, haematocrit and RBC indices, WBC count and platelet count were with in normal range. Peripheral smear finding showed features of microcytic hypochromic anaemia. Radiological examination revealed multiple fibroids. Patient underwent total abdominal hysterectomy with salphingo-oophorectomy. Gross examination revealed hypertrophic cervix. Endometrium was unremarkable. Myometrium showed multiple intramural and subserosal fibroids. Right and left ovaries and right fallopian tube appeared unremarkable. External surface of left fallopian tube showed a well circumscribed nodule on the serosal surface measuring 0.6x0.5x0.4cm. Cut surface the nodule was grey brown to grey black in colour, soft to firm in consistency. Lumen was patent. On microscopic examination cervix showed chronic papillary endocervicitis with focal squamous metaplasia and nabothian cysts. Endometrium in proliferative phase. Myometrium showed leiomyomata with degenerative changes. Right fallopian tube, right and left ovary appeared unremarkable. Left fallopian tube showed a well circumscribed neoplasm composed of blood filled spaces lined by flattered endothelial cells. Some of the spaces showed fibrin thrombi. No evidence of increased mitosis and necrosis. Immunohistochemistry (IHC) using CD 34, a vascular endothelial cell marker was performed which showed membrane positivity (Figure 1).

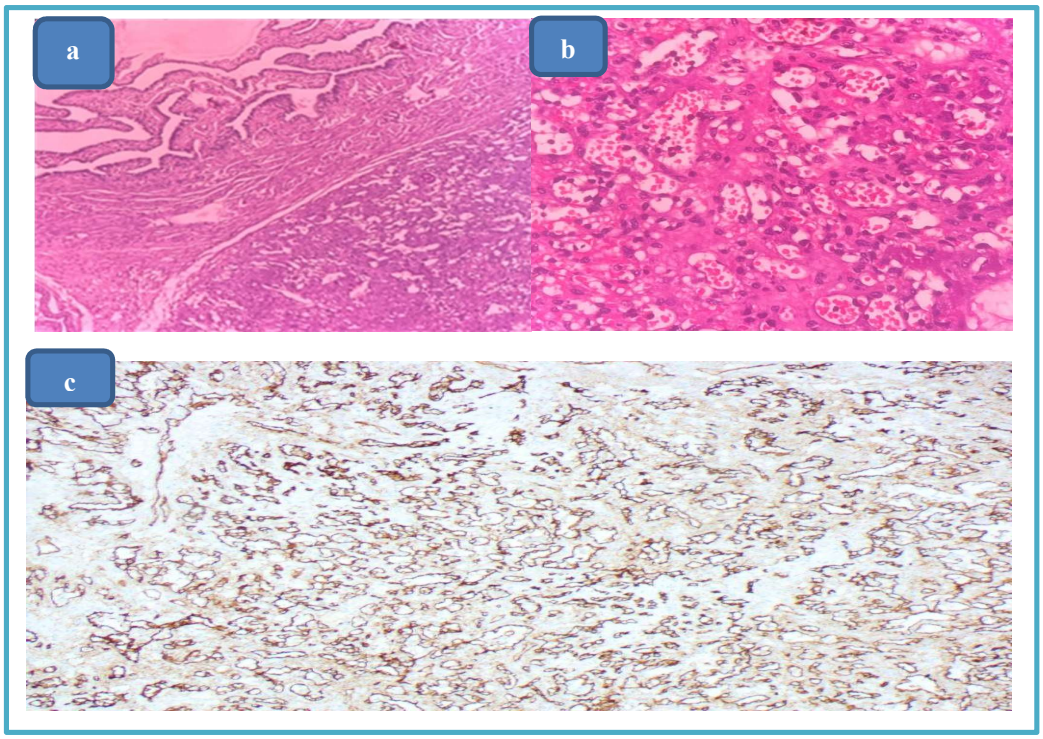

Figure 1. a) Wall of fallopian tube showing a well circumscribed tumor composed of numerous vascular spaces (H&E, 10X) .b) Small calibre blood vessels lined by plump endothelial cells. (H&E, 40X). c) Immunohistochemical staining for CD34 showing membrane positivity on endothelial cells (10X)

Discussion

Neoplastic lesions of fallopian tube are extremely rare in female genital tract. Non-neoplastic lesions are more common when compared to neoplastic lesion. Most of the fallopian tube neoplasms are detected incidentally by the surgical pathologist [6]. The most common neoplastic lesions of fallopian tube are Adenomatoid tumors, which are benign tumors of mesothelial origin. Hemangiomas are most common benign tumors of soft tissue. These tumors are commonly seen in of head and neck. Very few cases of fallopian tube hemangiomas have been reported [7]. Hemangiomas are often congenital or develop in the neonatal period and grow rapidly. Two main forms of hemangiomas are recognized: Capillary and Cavernous [8]. Etiology of haemangioma in female genital tract is unknown. The clinical presentation are usually asymptomatic but variable presentation has been documented. In the present study patient had complaints of dysmenorrhea for past 6 months. The gross presentation of capillary haemangioma of fallopian tube is usually tiny nodular lesion on the walls of the fallopian tube [9]. In the present study left fallopian tube showed a well circumscribed nodule on the serosal surface measuring 0.6x0.5x0.4 cm. Cut surface of the nodule was grey brown to grey black in colour, soft in consistency. The lumen was patent. The microscopic features of hemangioma are well circumscribed vascular lesion,

composed of thin walled proliferating capillary sized vessels filled with blood and were lined by plump endothelial cells [10]. In the present study left fallopian tube showed a well circumscribed neoplasm composed of blood filled spaces lined by flattered endothelial cells. Some of the spaces also showed fibrin thrombi. One of the important differential diagnosis that we would like to highlight is adenomatoid tumor of fallopian tube. The microscopic feature of adenomatoid tumor also shows a well circumscribed lesion composed of tubules, glands and cystic spaces lined by single layer of low cuboidal or flat epithelial like cells which contain abundant eosinophilic cytoplasm with vacuoles and round, bland nuclei. The supporting stroma appears fibroblastic or loosely edematous with lymphocytic sprinkling. Both the lesions are well circumscribed and are composed of cystic spaced which makes the diagnosis more challenging. In capillary hemangiomas the dilated spaces are lined by plump endothelial cells filled with RBCs whereas adenomatoid tumor show dilated spaces which are empty or filled with pale fluid and lined by epithelial like cells. In the present case report, initial sections showed dilated spaces but very few spaces were filled with RBCs. Hence extensive sampling helped us to confirm the diagnosis of capillary hemangioma. Immunohistochemical staining of CD34 highlights the endothelial lining of vascular channels.[10] In the present case report, Immunohistochemical staining for CD 34 showed membrane positivity on endothelial cells which also helped us to differentiate hemangioma from adenomatoid tumor. Treatment of hemangioma of fallopian tube is surgical excision of the lesion. In the present study abdominal hysterectomy with salphingo-oophorectomy was performed in view of dysmenorrhea since 6 months. Some of the complications of vascular neoplasm in the female genital tract are rupture of hemangiomas which can cause hemoperitoneum and other fatal consequences. In the literature, few cases of hemagioma have been reported, but most of them were cavernous hemangiomas. From the published literature it has been observed that capillary hemagioma of fallopian tubes are extremely rare in there occurrence and are usually identified incidentally.

Conclusions

In Female genital tract, vascular lesions like capillary hemangioma are very uncommon. In the present study capillary hemangioma was incidentally detected, hence extensive sampling and careful examination is essential.

This case is presented to emphasise the rarity of capillary hemangioma in the female genital tract.

Conflicts of interest

The authors declares that they do not have conflict of interest.

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References

1. Huang CC, Chang DY, Chen CK, Chou YY, Huang SC (1995) Adenomatoid tumor of the female genital tract. Int J Gynaecol Obstet 50: 275-280.
2. Deb P, Singh V, Dutta V, Kapoor K. An unusual case of cavernous haemangioma of the Fallopian tube. Journal of Cancer Research and Therapeutics. 2014 Apr 1;10(2):363-4.

3. Merrow AC, Gupta A, Patel MN, Adams DM. 2014 revised classification of vascular lesions from the international society for the study of vascular anomalies: Radiologic-pathologic update. Radiographics 2016;36:1494-516.
4. Katiyar R, Patne SC, Bharti S, Jain M. Capillary hemangioma of the fallopian tube. J Clin Diagn Res. 2016;10:QD01-2.
5. Yoon G, Kim HS. Characterization of clinicopathological features of tubal cavernous hemangioma. Int J Clinic Experiment Pathol. 2016;9:7476-81.
6. Vang R, Wheeler JE. Diseases of the fallopian tube and paratubal region. In:Kurman RJ, Ellenson LH, Ronnett BM, eds. Blaustein's pathology of the female genital tract. 6th edition Springer Science +Business Media, New York 2011.
7. Merrow AC, Gupta A, Patel MN, Adams DM. 2014 revised classification of vascular lesions from the international society for the study of vascular anomalies: Radiologic-pathologic update. Radiographics 2016;36:1494-516
8. Gowri R, Soundararaghavana S, Oumachigui A, Iyengar KR. Fallopian tube haemangioma. J Obstet Gynecol Ind 2004;54:85-6.
9. Yadav SK, Bhoj M, Salhan S, Sarin N, Singh S. Capillary haemangioma of fallopian tube: a rare but dangerous incidental finding. Int J Reprod Contracept Obstet Gynecol 2019;8:747-50
10. DiOrio J Jr., Lowe LC. Hemangioma of the ovary in pregnancy: A case report. J Reprod Med 1980;24:232-4.