Mevlana Tıp Bilimleri Dergisi
Mevlana Medical Sciences
eISSN:2757-976X

OLGU SUNUMU/CASE REPORT

DOI:http:/dx.doi.org/10.56752/Mevmedsci.2025.92
Mev Med Sci, 2025; 5(2): 72-75

Adenomatoid Tumor in the Fallopian Tube - A Rare Case

Fallop Tüpünde Adenomatoid Tümör - Nadir Bir Olgu

Ilkay Cinar[1]

[1]Giresun University, Faculty of Medicine, Giresun, Türkiye

Makale Tarihleri/Article Dates:
Geliş Tarihi/Received: 13 August 2024
Kabul Tarihi/Accepted: 21 April 2025
Yayın Tarihi/Published Online: 08 August 2025

Sorumlu Yazar/Corresponding Author:
Ilkay Cinar,
Giresun University, Faculty of Medicine, Giresun, Türkiye
e mail: a.ilkaycinar@gmail.com

ÖZET

Giriş: Adenomatoid tümörler, fallop tüpünün iyi huylu mezotelyal neoplazmalarıdır. Nadir görülürler ve genellikle tüp ligasyonu için gönderilen örneklerde tesadüfen teşhis edilirler ve vasküler veya epitelyal benign- malign lezyonlarla karıştırılabilirler.
Olgu: Sezaryen sırasında tüp ligasyonu geçiren 43 yaşındaki bir hastanın tüp segmentleri patoloji laboratuvarımıza gönderildi. Makroskopik incelemede lezyon görülmedi. Mikroskobik incelemede kübik veya basıklaşmış epitel ile döşeli, ilk bakışta vasküler bir lezyona benzeyen iyi sınırlı bir lezyon görüldü. Atipi, mitoz veya nekroz gözlenmedi. İmmünohistokimyasal çalışmada kalretinin, sitokeratin ve vimentin için pozitif boyanma görüldü. Histopatolojik ve immünhistokimyasal verilere dayanarak adenomatoid tümör tanısı konuldu.
Tartışma: Adenomatoid tümörler kadınlarda uterusta ve nadiren fallop tüplerinde ve overlerde bulunur. Genellikle çeşitli nedenlerle tedavi edilen hastalarda tesadüfen tespit edilirler. Ayırıcı tanıda leiomyoma, lenfanjiyom, karsinoid, epiteloid hemangio endotelyoma, malign mezotelyoma, Krukenberg tümörü gibi benign, intermediet ve malign hastalıklar bulunur. Lokalizasyonu nedeniyle, adneksal lezyonlar da vakamızın ayırıcı tanısına girmektedir.
Sonuç: Adenomatoid tümörler nadir görülen, farklı nedenlerle uygulanan cerrahi uygulamalarda insidental olarak kaşımıza çıkan lezyonlardır. Genellikle benign karakterde olmalarına rağmen değişken histolojileri ve atipik yerleşimleri nedeniyle diğer benign ve malign lezyonları taklit edebilirler ve bu durumlardan ayırt edilmeleri gerekir.

Anahtar Kelimeler: Fallop tüpü, adenomatoid tümör, insidental

ABSTRACT

Introduction: Adenomatoid tumors are benign mesothelial neoplasms of the fallopian tube. They are rare and are usually diagnosed incidentally in specimens sent for tubal ligation and can be confused with vascular or epithelial benign-malignant lesions.
Case Presentation: Tubal segments from a 43-year-old patient who underwent tubal ligation during a cesarean section were sent to our pathology laboratory. Gross examination revealed no macroscopic lesion. Microscopic examination revealed a well-circumscribed lesion that at first glance resembled a vascular lesion lined by cuboidal or flat cells. No atypia, mitosis, or necrosis was observed. Immunohistochemical staining showed positivity for calretinin, cytokeratin, and vimentin. Based on all data, a diagnosis of adenomatoid tumor was made.
Discussion: Adenomatoid tumors are generally found in the uterus and rarely in the fallopian tubes and ovaries in women. They are typically detected incidentally in patients treated for various reasons. Differential diagnosis includes benign, intermediate, and malignant conditions such as leiomyoma, lymphangioma, carcinoid, epithelioid hemangioendothelioma, malignant mesothelioma, Krukenberg tumor. Due to its localization, adnexal lesions also falls into the differential diagnosis of our case
Conclusion: Adenomatoid tumors are rare, incidental findings in surgical practice. Despite their generally benign appearance, they can mimic other benign and malignant lesions due to their variable histology and atypical locations, necessitating differentiation from these conditions.

Key words: Fallopian tubes, adenomatoid tumor, incidental

Açıklama/Disclosure: Yazarların hiçbiri, bu makalede bahsedilen herhangi bir ürün, aygıt veya ilaç ile ilgili maddi çıkar ilişkisine sahip değildir. Araştırma, herhangi bir dış organizasyon tarafından desteklenmedi. Yazarlar çalışmanın birincil verilerine tam erişim izni vermek ve derginin talep ettiği takdirde verileri incelemesine izin vermeyi kabul etmektedirler.

Atıf yapmak için/ Cite this article as: Cinar I. Adenomatoid Tumor in the Fallopian Tube - A Rare Case. Mev Med Sci. 2025; 5(2): 72-75

INTRODUCTION

Tumors of the fallopian tube are rare, including for approximately 1-2% of female genital malignancies and primary malignant tumors are quite rare (1, 2). In addition to neoplasms such as leiomyoma and adenofibroma, tumor-like formations such as paratubal cysts, salpingitis isthmica nodosa (SIN), placental site nodule, endosalpingiosis, and Wolffian duct remnants can occur in the fallopian tube. Adenomatoid tumors are rare benign tumors of mesothelial origin(3, 4). Literature search revealed approximately 49 cases of adenomatoid tumors in fallopian tube published. The mean age of patients was 45,6 years (29 -72 years).) In women, they usually involve the uterus and rarely the fallopian tubes and ovaries and found in the epididymis, spermatic cord, and scrotum in men (5, 6). They are typically detected incidentally in patients treated for various reasons. The incidence reported in hysterectomy specimens ranges from less than 1% to 5%, but this can vary depending on the sampling diligence. Although more common in women of reproductive age (26-55 years), they can affect women of any age(6, 7). Extragenital involvement is extremely rare, with cases originating from the adrenal gland, peritoneum, liver, pleura, and mediastinum(7,8). Adenomatoid tumors were first described nearly a century ago. However, their exact nature and histogenesis have been debated for decades. Additionally, due to their benign course and frequent incidental diagnosis, relatively few studies exist in the literature. Therefore, their pathogenesis and possible connections with other mesothelial lesions remain unknown. Nevertheless, recent significant advancements have been made in understanding their molecular biology. Here, we present a case of an adenomatoid tumor incidentally detected in a segment of the fallopian tube removed for tubal ligation.

CASE PRESENTATION

Tubal segments from a 43-year-old patient who underwent tubal ligation during a cesarean section were sent to our laboratory. Gross examination revealed no significant macroscopic lesion. The samples were processed following routine laboratory procedures, embedded in paraffin blocks, and sectioned at 3 microns thickness. The sections were stained with hematoxylin and eosin and examined under a light microscope. Microscopic examination was identified a well-circumscribed tumor, that at first glance resembled a vascular

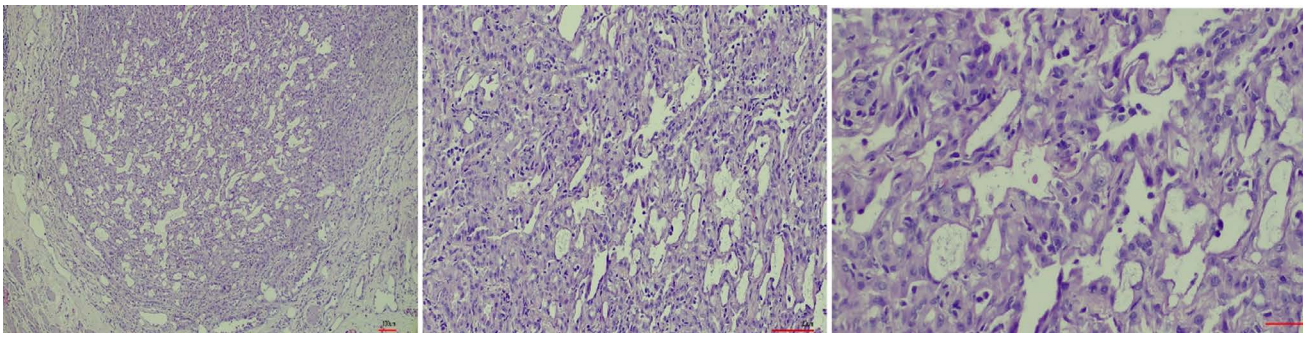

Figure 1. Left: Adenomatoid tumour(red arrow) of the fallopian tube(black arrow), (Hematoxylin Eosin,4x100) Mid: No capsule but well-circumscribed tumor, that included spaces in a myofibroblastic stroma, (Hematoxylin Eosin,10X100). Right: The cystic spaces lined by cuboidal to flat epithelial cells (Hematoxylin Eosin, 40x100).

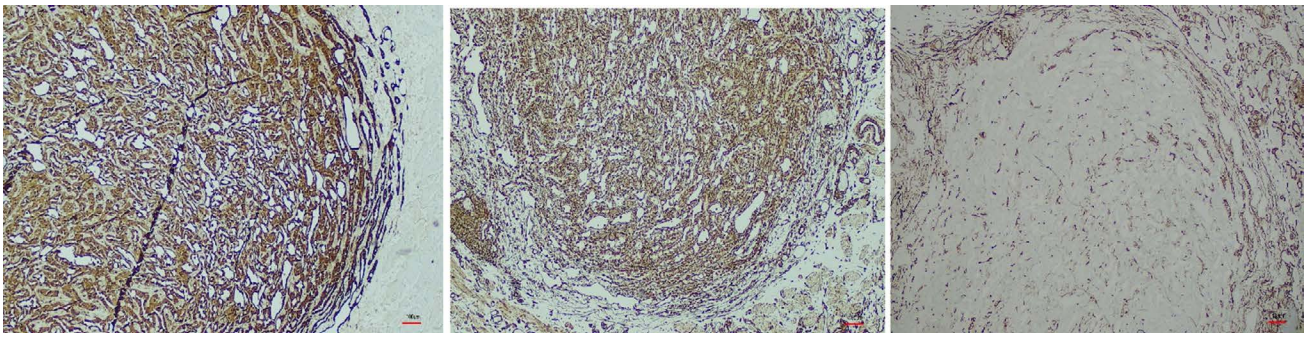

Figure 2. Immunohistochemical stains . Left : Tumor cells demonstrated diffuse strong reactivity with mesotelial cell marker calretinin, (calretinin,10x100) Mid: Tumor cells are positive for vimentin, (vimentin ,4x100) Right: Endotelyal marker CD34 stained negative , (CD34,10x100).

lesion included spaces in a myofibroblastic stroma . The spaces lined cuboidal or flat cells. No atypia, mitosis, or necrosis was observed (Figure 1). Immunohistochemical staining showed strong and widespread positivity for mesotelial cells marker calretinin and vimentin, but negativity for endotelial marker CD34 (Figure 2). Literature review, histomorphological, and immunohistochemical data supported the histopathological diagnosis of an adenomatoid tumor.

DISCUSSION

Adenomatoid tumors were first described by Golden and Ash in 1945(9), who proposed that the tumor was of epithelial origin and tended to form gland-like spaces, the exact nature of the tumor was uncertain, they suggested the term "adenomatoid tumor". Various other hypotheses regarding the histogenesis of these tumors, including endothelial, mesonephric, müllerian, and mesothelial origins, have been proposed (10-12). The mesothelial origin of adenomatoid tumor was first correctly suggested by Masson et al. (13). Morphological, immunohistochemical, and ultrastructural features also support a mesothelial origin. Adenomatoid tumors are benign and asymptomatic, and are mostly seen incidentally. The main concern is the differential diagnosis of the lesion, especially from malignant tumors. Due to their rarity, they can pose a challenge for pathologists. Differential diagnosis includes benign, intermediate, and malignant conditions such as leiomyoma, lymphangioma, carcinoid, epithelioid hemangioendothelioma, malignant mesothelioma, Krukenberg tumor, and yolk sac tumor(14-16). Due to its localization, our case falls into the differential diagnosis of adnexal lesions. Salpingitis isthmica nodosa is an acquired lesion where the tubal epithelium penetrates the muscle layer of the fallopian tube. The glands can undergo metaplastic change from tubal type to endometrial type. The muscle layer responds with hypertrophic and hyperplastic changes(17,18). Histopathologically, it can resemble an adenomatoid tumor. Salpingitis isthmica nodosa is distinguished from an adenomatoid tumor by negative staining for mesothelial markers such as calretinin and WT1. The rich vascular-like appearance also brings lymphangioma into the differential diagnosis. Vascular lesions can be excluded with an appropriate vascular/mesothelial marker panel. The gland-like, sometimes signet ring-like pattern of adenomatoid tumors can aid in diagnosing cases suspected of adenocarcinoma using mesothelial markers. Malignant mesothelioma (MM) must always be considered in the differential diagnosis. The adenomatoid variant of MM should not be forgotten(19). Localization, multiple lesions, significant atypia, or mitotic activity should raise suspicion for MM. For lesions that are well-circumscribed, lack an infiltrative pattern, and show no mitosis or atypia, the diagnosis of adenomatoid tumor is appropriate.

CONCLUSION

Adenomatoid tumors are rare lesions of the female genital system, with even rarer involvement of the fallopian tubes. The differential diagnosis among histomorphological entities is crucial, particularly concerning malignancies. Although they are the most common tumors of the fallopian tube, adenomatoid tumors are rare, incidental macroscopic and microscopic findings in surgical practice. Due to their variable histological patterns, including poorly defined, infiltrative borders and occasional bizarre cells, they can mimic other benign and malignant lesions and must be differentiated from them.

CONCLUSION

Spontaneous cervicothoracic epidural abscess is a uncommon problem that is associated with a significant mortality and morbidity. The key to a favourable outcome is early diagnosis and immediate surgical decompression.

Çıkar Çatışması: Çalışmada herhangi bir çıkar çatışması yoktur.

Finansal Çıkar Çatışması: Çalışmada herhangi bir finansal çıkar çatışması yoktur.

Sorumlu Yazar: Ilkay Cinar, Giresun University, Faculty of Medicine, Giresun, Türkiye

e-mail: a.ilkaycinar@gmail.com

REFERENCES

1. Pectasides D, Pectasides E, Economopoulos T. Fallopian tube carcinoma: A review. Oncologist. 2006 Sep;11(8):902-12. doi: 10.1634/theoncologist.11-8-902. PMID: 16951394.
2. Li YY, Kan GJ, Wang Q, et al. Adenomatoid tumor of the uterus: Analysis of misdiagnosed cases and a literature review. Journal of International Medical Research. 2024;52(10).
3. Kolin DL NM. Fallopian tube neoplasia and mimics. Surg Pathol Clin 2019;12:457-79.
4. Renavikar PS, Adwer L, Wagner DG, et al. A Rare Case of Giant Cystic Adenomatoid Tumor of the Uterus With Literature Review. Case Reports in Obstetrics and Gynecology. 2024;2024(1):7791245.
5. Kyriaki Mitta, Georgios Michos, Eleni Athanasiadou, et al. Adenomatoid tumor of the fallopian tube: A case report and a review of the literature. International Journal of Surgery Case Reports. 2024; 123.
6. Sangoi AR, McKenney JK, Schwartz EJ, et al. Adenomatoid tumors of the female and male genital tracts: A clinicopathological and immunohistochemical study of 44 cases. Mod Pathol. 2009 Sep;22(9):1228-35. doi: 10.1038/modpathol.2009.90. Epub 2009 Jun 19.
7. Karpathiou G, Hiroshima K, Peoc'h M. Adenomatoid Tumor: A Review of Pathology With Focus on Unusual Presentations and Sites, Histogenesis, Differential Diagnosis, and Molecular and Clinical Aspects With a Historic Overview of Its Description. Adv Anat Pathol. 2020 Nov;27(6):394-407.

8. Hayes SJ, Clark P, Mathias R, et al. Multiple adenomatoid tumours in the liver and peritoneum. J Clin Pathol 2007;60:722-4.
9. Golden A, Ash JE. Adenomatoid tumors of the genital tract. Am J Pathol. 1945;21:63-79.
10. Kaplan MA, Tazelaar HD, Hayashi T, et al. Adenomatoid tumors of the pleura. Am J Surg Pathol 1996;20:1219-23.
11. Isotalo PA, Nascimento AG, Trastek VF, et al. Extragenital adenomatoid tumor of a mediastinal lymph node. Mayo Clin Proc 2003;78:350-4.
12. Marcandier, Thomas. Sur un lymphangiome de l'épididyme [Regarding an epididymal lymphangioma]. Bull Ass Franc Et Cancer. 1930;19:126-31.
13. Masson P, Riopelle J, Simard L. Le mésothéliome bénin de la sphère génitale: 'sur la provenance mésothéliale de certaines tumeurs utérines, tubaires, funiculaires et épididymaires, connues sous les noms de lymphangio-endothéliome, d'adénome, d'adénomyome ou même d'adénocarcinome' [The benign mesothelioma of the genital tract: 'regarding the mesothelial origin of some uterine, tubal, spermatic cord and epididymal tumors, known under the name of lymphangio-endothelioma, adenoma, adenomyoma or even adeno carcinoma]. Rev Canad Biol. 1942;1:720-51.
14. Gordon-Taylor G, Ommaney-Davis C. A case of adenoma of the epididymis with a note on solid tumours of the epididymis. Br J Surg. 1941;29:260-2.
15. Blumer CEM, Edwards JL. Adenoma of the epididymis. Br J Surg. 1941;29:263–5.
16. Halpert B. Mixed leiomyoma and lymphangioma of the epididymis: report of a case. J Urol. 1941;45:536-8. 4. Malisoff S, Helpern M. Mixed leiomyoma and lymphangioma of the epididymis. J Urol. 1943;50:104-9.
17. Thobakgale NM, Khaba MC. The Incidental Diagnosis of Adenomatoid Tumour on Fallopian Tubes Submitted for Tubal Ligation at a Tertiary Laboratory in Northern Pretoria, South Africa. Clin Pathol. 2024 Feb 16;17:2632010X241230265.
18. Jenkins CS, Williams SR, Schmidt GE. Salpingitis isthmica nodosa: a review of the literature, discussion of clinical significance, and consideration of patient management. Fertil Steril. 1993 Oct;60(4):599-607.
19. Weissferdt A, Kalhor N, Suster S. Malignant mesothelioma with prominent adenomatoid features: A clinicopathologic and immunohistochemical study of 10 cases. Ann Diagn Pathol. 2011;15:25-9.