



DEPARTMENT OF PATHOLOGY

Short Report in Pathology

Organ system: Female Genital Tract

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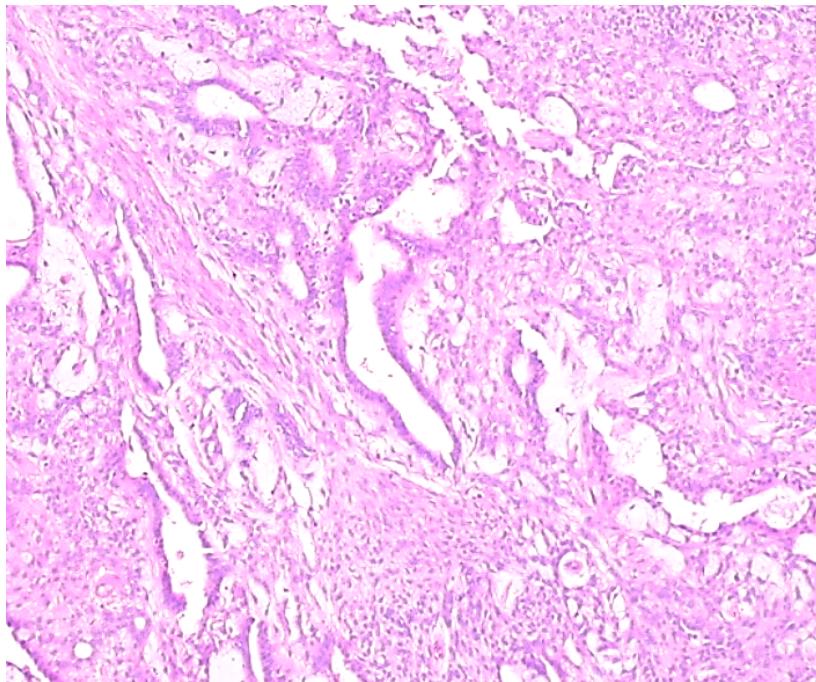
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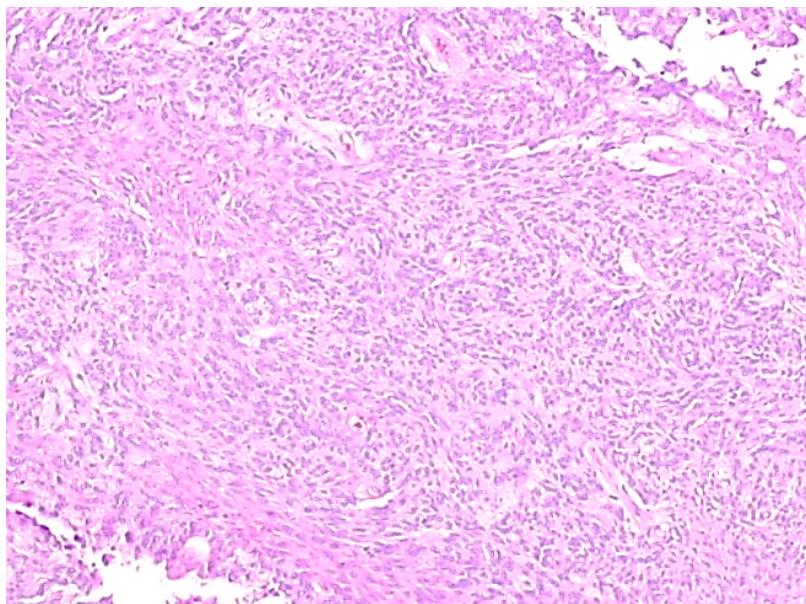
History:

A 45-year-old female with a 3 x 2 cm firm well-circumscribed mobile vaginal mass arising from posterior vaginal wall to the posterior fourchette that was completely resected.

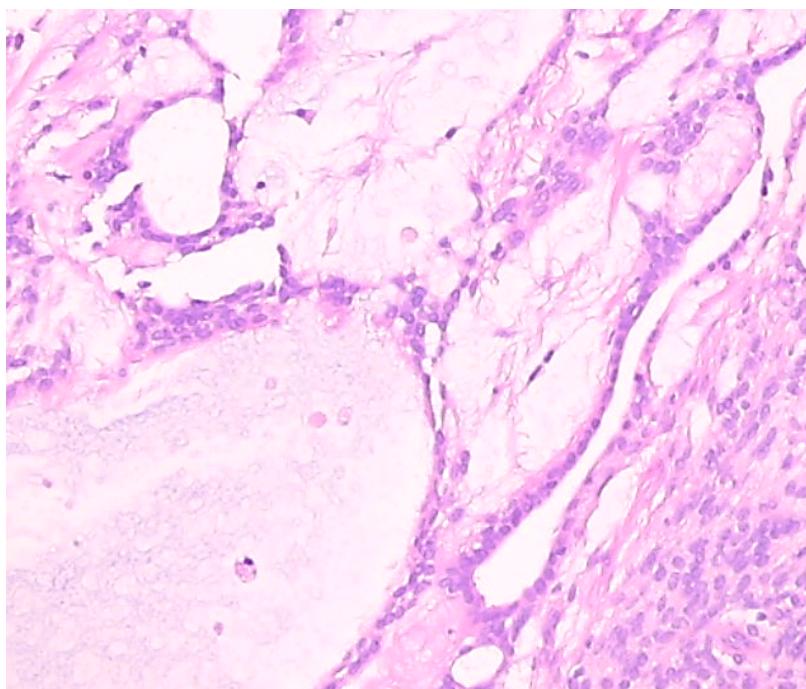
Microscopic Images:



Epithelial component comprising of glands (H&R, 100X)



Spindle cells arrange in fascicular pattern (H&E, 100X)



Glands with myxoid component (H&E, 200X)

Diagnosis:

Mixed tumor of the vagina

Discussion:

Mixed tumor of the vagina is a rare biphasic neoplasm composed of both epithelial and mesenchymal elements. They are well circumscribed, often located in the posterior distal

vaginal wall close to the hymen. The mesenchymal component often predominates, it is composed of spindle cells that exhibit various growth patterns, including fascicular, corded, nested and reticular arrangements. These are sharply demarcated from the epithelial component including mucinous glandular tissue and mature squamous epithelium. The stroma may contain eosinophilic hyaline material within a myxomatous or collagenous matrix. The tumor cells show minimal nuclear atypia and low mitotic activity. Immunohistochemically, there is often co-expression of a variety of epithelial and mesenchymal markers such as AE1/AE3, CK7, EMA, CD10, SMA, and desmin. These tumors have also been described as spindle cell epithelioma in the literature.

The prognosis for these mixed tumors of the vagina is favorable. Follow-up studies of affected patients suggest an overall benign clinical course. Complete surgical excision is considered curative, while cases of recurrence are likely attributable to incomplete resection. Notably, there have been no documented instances of metastasis in the literature to date.

Reference:

1. Oliva E, Gonzalez L, Dionigi A, Young RH. Mixed tumors of the vagina: an immunohistochemical study of 13 cases with emphasis on the cell of origin and potential aid in differential diagnosis. *Mod Pathol.* 2004 Oct;17(10):1243-50. doi: 10.1038/modpathol.3800173. PMID: 15154010.
2. Branton PA, Tavassoli FA. Spindle cell epithelioma, the so-called mixed tumor of the vagina. A clinicopathologic, immunohistochemical, and ultrastructural analysis of 28 cases. *Am J Surg Pathol.* 1993 May;17(5):509-15. doi: 10.1097/00000478-199305000-00011. PMID: 7682380.
3. Berdugo J, Gauthier P, Provencher D, Matte C, Piché J, Rahimi K. Spindle Cell Epithelioma of the Vagina: Report of Two Cases, Literature Review, and New Immunohistochemical Markers. *Int J Surg Pathol.* 2015 Dec;23(8):677-81. doi: 10.1177/1066896915587920. Epub 2015 May 20. PMID: 25998318.