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CASE REPORT

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Uterine tumor resembling ovarian sex cord-stromal tumor: A case report

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Abstract

Ovarian sex cord-stromal tumor-like uterine tumor (OSKTAUT) is an extremely rare gynecologic tumor with unclear pathogenesis but prominent polyphenotypic immunohistochemical findings. In this study, we aimed to present a 41-year-old woman who was operated on in an external center due to the presence of postmenopausal bleeding and uterine mass in the clinic and whose pathology was reported as a "uterine tumor resembling sex cord-stromal tumor of the ovary."

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Introduction

Ovarian sex cord tumor-like tumor of the uterus (OSKTAUT) is an extremely rare gynecologic tumor with unclear pathogenesis but distinct polyphenotypic immunohistochemical findings. Clement and Scully first published these tumors in the literature in 1976 and classified them into two subgroups (1). In the published 2021 NCCN Clinical Practice Guidelines for uterine neoplasms, this tumor is classified as a uterine sarcoma (OSKTAUT) and described as "soft spindle cell proliferation with extensive sex cord-like differentiation and no endometrial stromal component" (2). Clinically, OSKTAUT is usually considered a silent or low malignant potential neoplasm (3). However, several cases of uterine tumors resembling ovarian sex cord tumors (UTROSCT) have reported recurrence and metastasis during postoperative follow-up (4-6).

In this study, we aimed to present a case who was operated on in an external center due to the presence of postmenopausal bleeding and uterine mass in the clinic and whose pathology was reported as a "uterine tumor resembling ovarian sex cord-stromal tumor."

Case description

A 41-year-old patient underwent a total abdominal hysterectomy (TAH), bilateral salpingo-oophorectomy (BSO), omentectomy, and pelvic lymph node dissection (PPLND) at an external medical center. Following the pathology report, which revealed a 6x3.5x2.5 cm polypoid, grade 1 malignant mixed Müllerian tumor within the uterine cavity, the patient was referred. Histopathological examination unveiled solid, trabecular, and tubule-like structures, with endometrial glands embedded within the tumor. The tumor cells exhibited mildly atypical characteristics, featuring oval-round nuclei and eosinophilic cytoplasm. Additionally, immunohistochemical findings revealed diffuse staining with SF-1 in the tumor cells. (Figure 1-5). In immunohistochemical findings, the ki-67 index was low; SF-1, Caldesmon, Calretinin, Vimentin, Estrogen, Progesterone, Desmin, and p16 (focal) were positive; Melan A, Pancytokeratin, EMA, CK7, SMA, Inhibin, S-100 and CD10 were negative and the pathological diagnosis was reported as compatible with uterine tumor resembling ovarian sex cord tumor. The control ultrasonographic findings of the patient were reported as an intra-abdominally located, interconnected, 31x38 mm in medial and 36x42x104 mm in lateral dimensions, with no distinct wall structure, primarily evaluated in favor of postoperative hematoma in the left neighborhood of the operation lodge, and this collection was stable in the follow-up.

Discussion

Clinically, they often present with postmenopausal vaginal bleeding, abnormal menstruation, or pelvic pain (7,8), and imaging results show an enlarged uterus or a uterine mass similar to a fibrinoid lesion. It is often difficult to accurately diagnose UTROSCTs through frozen sections preoperatively or intraoperatively, as most of them show similar histopathologic patterns as benign and malignant lesions (9). In this study, UTROSCT was considered as a neoplasm with malignant potential. Based on clinicopathological and immunohistochemical findings and previous literature review, the presence of high mitotic activity and large diameter (≥ 10 cm) suggested that the tumor had aggressive characteristics. For the subset of UTROSCT with aggressive characteristics, tumor recurrence may lead to a poor prognosis (10).

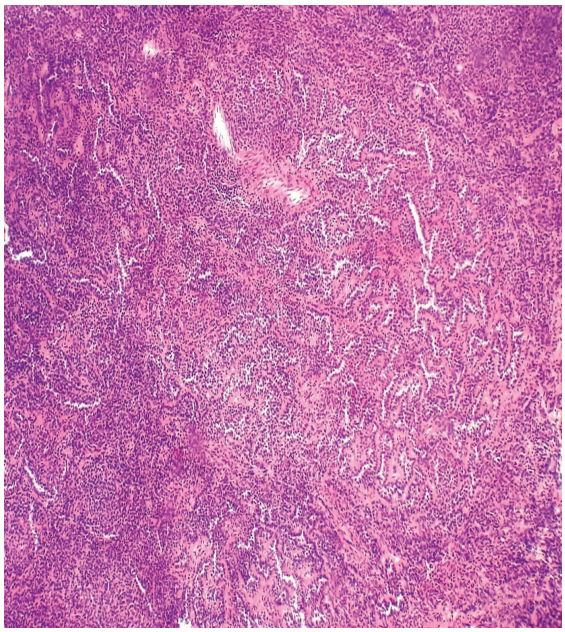

Figure 1: Neoplasm composed of solid, trabecular, and tubule-like structures (H&E, 40X)

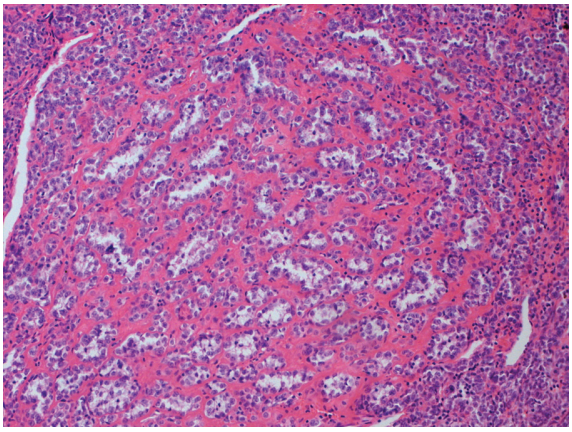

Figure 2: Large magnification image of tubule-like structures (H&E, 200X)

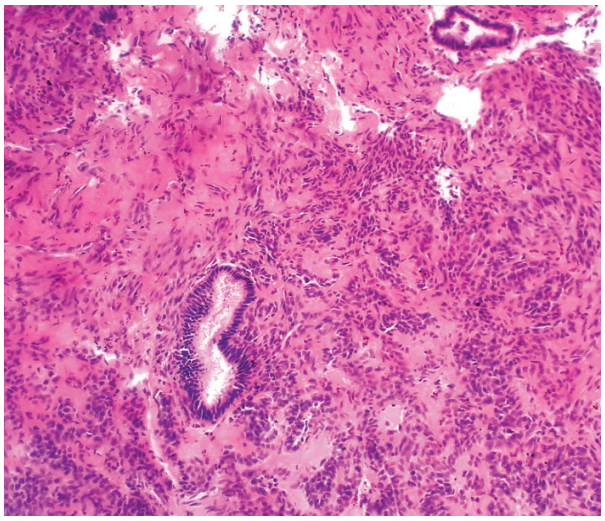

Figure 3: Endometrial gland structures trapped within the tumor (H&E, 100X)

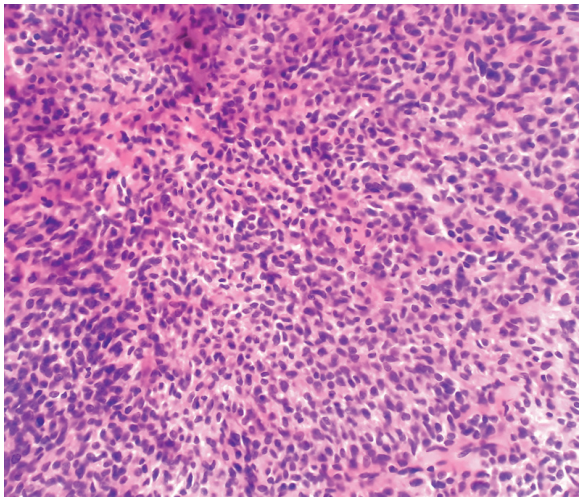

Figure 4: Mildly atypical tumor cells with oval-round nuclei and eosinophilic cytoplasm (H&E, 400X)

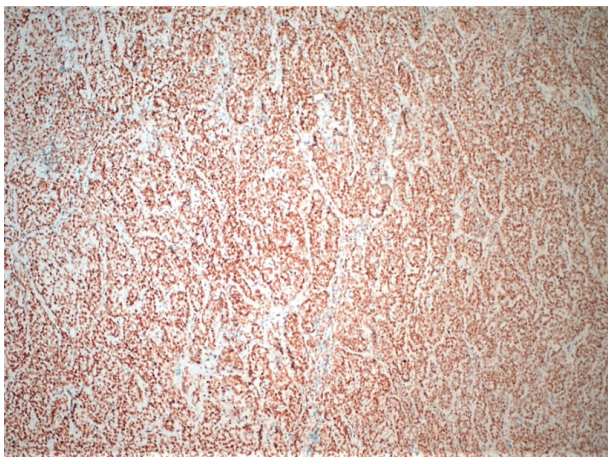

Figure 5: Diffuse staining with immunohistochemical SF-1 in tumor cells (IHK, 100X)

Conclusions

In the clinicopathological differential diagnosis of uterine masses, uterine tumors resembling sex cord-stromal tumors of the ovary, which are rarely found, should be considered.

Conflict of interest

The authors report no conflict of interest.

Funding source

No funding was required.

Ethical Approval

This is a case report manusript. No need for ethical approval.

Informed consent

Written informed consent was obtained from all individual participants and/or their gaurdians.

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None

Peer-review

Externally. Evaluated by independent reviewers working in at least two different institutions appointed by the field editor

Data availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Contributions

Research concept and design: FA, HHKS, AB

Data analysis and interpretation: FA, AB, CC, MC

Collection and/or assembly of data: FA, AB, CC, MC

Writing the article: FA, CC, MC

Critical revision of the article: FA, HHKS

Final approval of the article: FA, HHKS, AB, CC, MC

All authors read and approved the final version of the manuscript.

References

1. Clement PB, Scully RE. Uterine tumors resembling ovarian sex-cord tumors. A clinicopathologic analysis of fourteen cases. Am J Clin Pathol. 1976;66(3):512–25.
2. NCCN Clinical Practice. Guidelines in Oncology (Uterine neoplasm), Version 1.202,2020,43.
3. Hurrell DP, McCluggage WG. Uterine tumour resembling ovarian sex cord tumour is an immunohistochemically polyphenotypic neoplasm which exhibits coexpression of epithelial, myoid and sex cord markers. J Clin Pathol. 2007;60(10):1148–54.
4. Moore M, McCluggage WG. Uterine tumour resembling ovarian sex cord tumour: first report of a large series with follow-up. Histopathology. 2017;71(5):751–9.
5. Chang B, Bai Q, Liang L, Ge H, Yao Q. Recurrent uterine tumors resembling ovarian sex-cord tumors with the growth regulation by estrogen in breast cancer 1-nuclear receptor coactivator 2 fusion gene: a case report and literature review. Diagn Pathol. 2020;15(1):110.
6. Kaur K, Rajeshwari M, Gurung N, Kumar H, Sharma MC, Yadav R, et al. Uterine tumor resembling ovarian sex cord tumor: A series of six cases displaying varied histopathological patterns and clinical profiles. Indian J Pathol Microbiol. 2020;63:81–1S86.
7. Blake EA, Sheridan TB, Wang KL, Takiuchi T, Kodama M, Sawada K, et al. Clinical characteristics and outcomes of uterine tumors resembling ovarian sex-cord tumors (UTROSCT): a systematic review of literature. Eur J Obstet Gynecol Reprod Biol. 2014;181:163–70.
8. Irving JA, Carinelli S, Prat J. Uterine tumors resembling ovarian sex cord tumors are polyphenotypic neoplasms with true sex cord differentiation. Mod Pathol. 2006;19(1):17–24.
9. Pradhan D, Mohanty SK. Uterine tumors resembling ovarian sex cord tumors. Arch Pathol Lab Med. 2013;137(12):1832–6.
10. Xiao-qiang Wei, Meng Tang, Lili Liu, Shu-ping Zhao. Recurrent Uterine Tumor Resembling Ovarian Sex Cord Tumor: A Case report and Clinicopathological and Immunohistochemical Analysis, 09 July 2021, PREPRINT (Version 1) available at Research Square (https://doi.org/10.21203/rs.3.rs-684877/v1).