—Photogravure—

Rhabdomyosarcoma of the Uterus: A Case Report

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Rhabdomyosarcoma is a malignant, mesenchymal tumor showing evidence of skeletal muscle differentiation[1]. Although rhabdomyosarcoma rarely arises from the uterus, uterine rhabdomyosarcoma has a poor prognosis. We describe a case of uterine rhabdomyosarcoma diagnosed with endometrial curettage.

Case Report

A 36-year-old nulliparous woman had received follow-up care for a uterine myoma for 2 years. Subsequently, the patient presented with abdominal distension and hypermenorrhea. Physical examination revealed an abdominal mass palpable to the level of the umbilicus. Pelvic examination showed the uterus to be the size of an infant's head. The patient also experienced atypical vaginal bleeding once a year, which gradually became more frequent. Recently, it occurred twice a week. Therefore, she was admitted to our hospital.

On admission, the hemoglobin level was 5.4 g/dL. Hematological testing indicated iron deficiency anemia. Blood coagulation testing showed normal ranges. The cancer antigen 125 level was slightly elevated at 49 U/mL. The serum levels of cancer antigen 19-9 and carcinoembryonic antigen were within normal limits. Endometrial samples were collected with endometrial curettage. On the basis of the histological findings from the collected samples, rhabdomyosarcoma was diagnosed. However, because of the small amount of curettage samples, the histological subtype[1] of the rhabdomyosarcoma could not be determined.

Computed tomography of the pelvis and abdomen showed a large pelvic mass with irregular density. Furthermore, computed tomography of the chest revealed multiple nodules in the lungs, which suggested pulmonary metastases. Magnetic resonance imaging of the pelvis demonstrated an enlarged nodular pelvic mass containing irregular intensities (**Fig. 1A and B**).

After a multidisciplinary meeting, the patient was treated with multiagent chemotherapy. Vincristine, doxorubicin, and cyclophosphamide were administered intravenously but were not effective.

The patient died 5 months after being admitted to our hospital. On the basis of the findings of this case, we emphasize the importance of correctly diagnosing pelvic masses in women.

Histological Findings

Figure 2 shows the histopathological features of the biopsy specimens obtained with endometrial curettage. Histopathological examination of the specimens revealed small circular or oval tumor cells (**Fig. 2A**). No carcinomatous elements were identified. The morphologic features were consistent with those of rhabdomyosarcoma. With immunohistochemical examination the tumor cells stained strongly positive for desmin (**Fig. 2D**) and vimentin (**Fig. 2F**) and negative for caldesmon (**Fig. 2C**). In addition, the tumor cells demonstrated positive nuclear expression for myogenin. These immunohistochemical findings supported the histological diagnosis of rhabdomyosarcoma. The MIB-1 index was 80% (**Fig. 2E**).

Conflict of Interest: The authors have no conflict of interest to declare.

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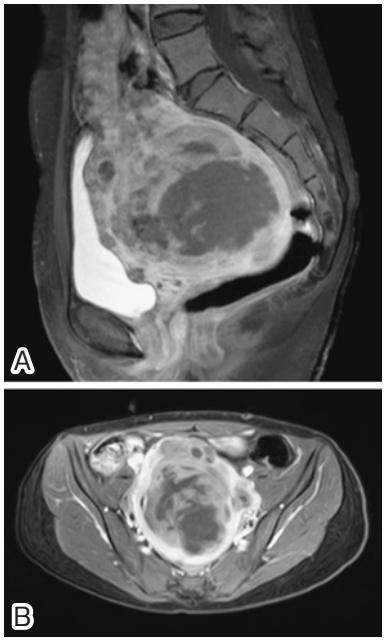

Fig. 1

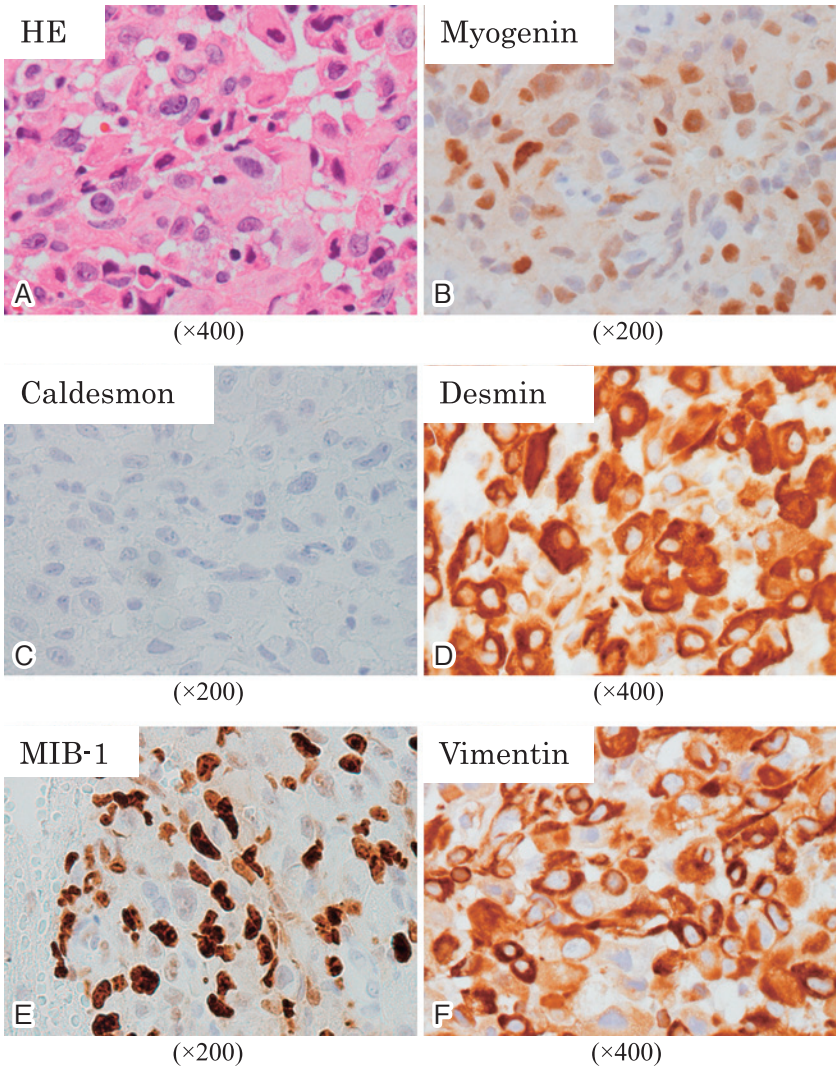

Fig. 2

Fig. 1 Gadolinium-enhanced T1-weighted magnetic resonance imaging of the pelvis (fat saturation). The image shows the enlarged nodular pelvic mass containing irregular intensities.
A: Longitudinal section. **B:** Transverse section.

Fig. 2 Histologic images of the tissue collected with endometrial curettage.
The MIB-1 index was 80%.
A: Hematoxylin and eosin (HE) stain (×400). **B–F:** Immunohistochemistry. **B:** Myogenin (×200). **C:** Caldesmon (×200). **D:** Desmin (×400). **E:** MIB-1 (×200). **F:** Vimentin (×400)

Reference

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