Tumori, 95: 525-531, 2009

Primary peritoneal malignant mixed mesodermal (Müllerian) tumor

Mahmoud R Hussein[1], Saad Rezk Abudlwahed Hussein[2], and Ahmad Rezk Abd-Elwahed[3]

[1]Departments of Pathology, Assir Central (Abha, KSA) and Assuit University Hospitals, Assuit University, Assuit, Egypt; [2]Department of Radiology, Faculty of Medicine, AL-Azhar University, Assuit, Egypt; [3]Departments of Obstetrics and Gynecology, Faculty of Medicine, AL-Hussein University Hospitals, AL-Azhar University, and Ibn Sina National College of Medicine, Jeddah, Kingdom of Saudi Arabia

ABSTRACT

Aims and background. Malignant mixed mesodermal tumor (MMMT) is a biphasic neoplasm (carcinosarcoma) composed of both epithelial and mesenchymal elements. Extragenital MMMT, including primary peritoneal MMMT, is an extremely rare tumor with features consistent with its origin from the secondary Müllerian system. The neoplastic elements of extragenital MMMT presumably arise directly from the mesothelium or submesothelial stroma and hence parallel the biphasic pattern of the genital (uterine or ovarian) counterpart.

Methods and study design. Here we report on the clinical, pathological, and immunohistochemical features of a case of peritoneal MMMT in a 65-year-old woman. The patient presented with abdominal fullness and pain. Gynecological examination revealed a huge pelvic abdominal mass. On histology, the tumor consisted of poorly differentiated carcinomatous and sarcomatous (rhabdomyosarcoma) components. Further immunohistochemical analysis revealed positive reactivity for both epithelial (cytokeratin and epithelial membrane antigen) and mesenchymal (vimentin, S-100, and desmin) markers. The patient refused treatment and died of the disease three months later.

Results and conclusions. Based on the present case and on previous studies, primary peritoneal MMMT seems to be a rare but highly malignant neoplasm with an aggressive behavior and poor prognosis. Its exact origin, histogenesis and molecular alterations are poorly understood.

Key words: peritoneum, malignant mixed mesodermal tumor.

Correspondence to: Mahmoud R Hussein, Department of Pathology, Faculty of Medicine, Assuit University, Assuit, Egypt.
Tel +20-93-2581258;
fax +20-88-373727;
e-mail mrcpath17@gmail.com, mrh17@gawab.com

Received June 5, 2008;
accepted July 29, 2008.