7. DIAGNOSTIC CHALLENGES IN UNUSUAL GYNECOLOGICAL SYNCHRONOUS TUMOR: A PATHOLOGIST'S PERSPECTIVE

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Introduction. Ovarian carcinosarcoma (OCS) is an uncommon high-risk malignant biphasic neoplasm consisting of morphologically high-grade carcinomatous and sarcomatous tissue elements. OCS has an incidence of 2.5% (4 cases reported since 2013) operated in our gynecological unit. The prediction of the biological behavior of OCS is unfavorable, due to the absence of markers for early diagnosis, high recurrence and mortality.

Case statement. A 59-year-old patient without significant history was admitted in the Obstetrics and Gynecology, Cuza Vodă Hospital, Iaşi, Romania. The pelvic MRI revealed two ovarian and one uterine mass. A total hysterectomy with bilateral adnexectomy, pelvic lymphadenectomy and omentectomy was performed. Ovarian and uterine specimens were examined using hematoxylin–eosin and immunohistochemistry staining to confirm the carcinomatous and sarcomatous components in the ovarian mass.

Discussions. Upon microscopic examination, OCS was confirmed by poorly differentiated carcinomatous tissue morphology, with areas of squamous differentiation, associated with mesenchymal component, as undifferentiated sarcoma next to areas with heterologous rhabdomyoblastic differentiation. After the surgery, the patient was referred to the Oncology Clinic, Iasi, Romania, for the postoperative oncological treatment. Three months after chemotherapy the pelvic CT detected two more pelvic tumoral masses, which had infiltrated the recto-sigmoid wall. The immunohistochemical analysis turned out to be AE1/AE3 positive for the carcinomatous tumor cells, while P63 immunoexpression confirmed squamous differentiation and desmin supported the mesenchymal component origin. Also, endometrial samples revealed a low grade endometrial endometrioid adenocarcinoma (G2) with intraepithelial endometrial neoplasia.

Conclusion. OCS has a wide range of morphological activity with high potential of recurrence or metastasis. Providing additional data, the present case report contributes to expanding knowledge of these aggressive neoplasms. A multidisciplinary approach including clinical surgical findings, histopathological features and treatment options are required for final diagnosis. Also, molecular studies are important to reveal a clonal relationship between these two synchronous malignant cell populations.

Keywords. Biphasic neoplasm, endometrial adenocarcinoma, rhabdomyoblastic differentiation, immunohistochemistry