Choriocarcinoma developed in a tubal pregnancy – a case report

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Abstract
Carcinoma of the Fallopian tube is the least frequent tumor of the female genital tract. The diagnosis is difficult but could be made more frequently if the causes of abnormal bleeding were thoroughly investigated by means of cytology and endometrial curettage. Treatment is by resection of the tumor, total hysterectomy, and bilateral salpingo-oophorectomy followed by chemotherapy. A 25-year-old patient, presented herself at the emergency room, accusing intense lower abdominal pains, accompanied by vaginal bleeding. The histological aspect corroborated with the Ki-67 index is strongly suggestive for a choriocarcinoma developed in a tubal ectopic pregnancy.

Keywords: carcinoma, Fallopian tube, histopathological exam, βhCG test.

Introduction
Epidemiological data show that worldwide, more than 1500 cases of primary Fallopian tube carcinoma have been reported. The prevalence is estimated to be between 15% and 1.8% of all primary female genital neoplasms [1, 2].

Data from population-based tumor registries have suggested that the incidence of approximately three in 1 000 000 of women is consistent among several regions of the United States and abroad and has been stable over the past 50 years [3–5].

Racial variations have been suggested, with the disease occurring slightly more frequently among whites. Age-specific incidence follows a pattern similar to ovarian and endometrial cancers, with a rapid increase in relative frequency after menopause. The median age at diagnosis for Fallopian tube carcinoma is 56.7 years (range: 51 to 63 years) [6, 7].

The disease is distinctly uncommon in women younger than 20 years; more than 65% are menopausal at diagnosis. There has been an association with nulliparity among reported cases, occurring at a frequency of 27% to 35%; salpingitis, a confounding co-factor, has also been reported [8–10].

Primary Fallopian tube cancer constitutes 1% of gynecological malignancies. Early clinical manifestation and prompt investigations lead to diagnosis in the early stage of disease accounting for a better survival compared with ovarian cancer. Principles of management generally follow that of epithelial ovarian cancer [11].

Case report
R.A.A., a 25-year-old patient, presented herself at the emergency room, accusing intense lower abdominal pains, accompanied by vaginal bleeding. She was hospitalized at the “Bega” Clinic of Obstetrics and Gynecology, Emergency County Hospital, Timișoara, Romania, so that clinical and laboratory investigations could be performed, in order to perform an emergency surgery. Based on clinical and laboratory investigations, the patient was diagnosed with ruptured ectopic pregnancy, which needed surgical intervention.

In this case report, we wanted to correlate with the clinical laboratory to obtain early diagnosis as positive if tubal choriocarcinoma, knowing that this pathology is extremely rare.
Paraclinical, we have conducted a βhCG test—one test value 0.

Carcinoma of the Fallopian tube is the least frequent tumor of the female genital tract. It may occur at any age but is more common in the sixth decade. The tumor involves both tubes in 26% of cases. The spread is by direct extension to peritoneum. The symptoms include metrorrhagia, leukorrhea, abdominal pain, singly or in combination. The diagnosis is difficult but could be made more frequently if the causes of abnormal bleeding were thoroughly investigated by means of cytology and endometrial curettage. Treatment is by resection of the tumor, total hysterectomy, and bilateral salpingo-oophorectomy followed by chemotherapy. The 5-year survival rate is 38% [12–14]. Our patient is only 25-year-old, a young age compared to the other data in literature. Surgery was followed by chemotherapy, and now, one year after the surgery, there are no clinical or paraclinical changes.

The microscopic aspect reveals: tubular wall fragments, including regional; at the level of the muscular structures, we have observed pseudoglandular branched structures covered by cytrophoblast, intermediate trophoblast and syncytiotrophoblast (with positive immunoreactive βhCG of the syncytiotrophoblast cells); and vascular spaces lined by trophoblastic cells (Figures 1–7). The trophoblastic cells present cytological atypia with obvious nuclear pleomorphism; nucleolated or hyperchromatic nuclei, sometimes bizarre, and rare mitoses. There were noticed the microformation of fibrinoid necrosis and the diffuse inflammatory polymorph infiltrate (lymphoplasmacytic, granulocyte and eosinocyte) in the muscular stroma; high Ki-67 proliferation index (between 50–80% depending on the evaluated area). The histological aspect corroborated with the Ki-67 index is strongly suggestive for a choriocarcinoma developed in a tubal ectopic pregnancy (Figure 8).

Discussion

According to some studies, primary carcinoma of the Fallopian tube is a rare cancer, accounting for approximately 0.14–1.8% of the malignant genital tumors in women. Based on data from nine cancer registries, it was estimated that in the United States the average annual incidence of primary Fallopian tube carcinoma is 3.6 per million of women [15].
Choriocarcinoma developed in a tubal pregnancy – a case report

Here, the casuistry of tubal cancer is extremely rare; over 10 years (2000–2010), we have recorded a total of 4171 clinical cases of gynecological cancers, of which only one case of tubal choriocarcinoma. The histopathological diagnosis reveals the macroscopic aspect: irregular tissue fragment, covered with whitish smooth serous; non-homogeneous surface section, mottled with brown areas.

Fallopian tube carcinoma is rarely suspected preoperatively. The symptom complex of ‘hydrops tubae profuence’, said to be pathognomonic for this tumor, is rarely encountered. The treatment approach is similar to that used for ovarian carcinoma and includes primary surgery comprised of total abdominal hysterectomy, bilateral salpingo-oophorectomy and staging followed by chemotherapy. The prognosis of patients with primary Fallopian tube carcinoma is similar to that of patients with primary ovarian carcinoma [16].

The depth of invasion of the tubal wall and the presence of carcinoma in the fimbriated end even without invasion are important prognostic indicators. The modified International Federation of Obstetrics and Gynecology staging system should be used on a routine basis in all carcinomas of the Fallopian tube [17–19].

Conclusions

In our case, the symptoms and imaging were unspecific. Although a rare occurrence, we should not forget Fallopian tube carcinoma in the differential diagnosis of peritoneal carcinomatosis. Stage, patient age, and, among patients with advanced disease, residual tumor after initial surgery represent important prognostic variables for survival.

Conflict of interests

The authors declare that they have no conflict of interests.

References


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