Introduction

Ovarian cancer, as the disease of highly developed socio-economic societies, is the sixth disease according to the incidence, in comparison to other malignancies in female population, with around 205,000 new cases per year. According to the incidence in the field of gynecologic oncology, it is the second malignancy, and it is the second in the world when speaking about mortality rate with absolute number of 125,000 deaths per year.  

Mucinous cystadenocarcinoma makes 10% of ovarian cancers. They belong to the largest ovarian tumors with dimensions up to 50 cm in diameter. One quarter of these tumors has a bilateral localisation. In a typical history of ovarian cancer the following symptoms can be found: abdominal pain (53%), increase of the abdominal volume (46%), difficult and frequent urination (39%), feeling of satiety (22%), vaginal bleeding (14%), obstipation (17%), and weight loss despite the increased and distended abdomen.

Taylor et al reported that around 10% of all cases of ovarian carcinoma are genetically predisposed. Namely, positive family history in terms of breast cancer and ovarian cancer, especially in younger age, may indicate the presence of BRCA1 (chromosome 17) and BRCA2 (chromosome 13) of genetic mutation in patients from such families. This type of...
carcinoma is detected earlier than the more frequent serous type of ovarian epithelial carcinoma, thus leading to a better perspective. However, females with advanced mucinous ovarian tumor have much worse perspective in comparison to those with advanced serous ovarian tumor. Scientists believe that the possible explanation lays in the fact that the mucinous ovarian carcinoma is biologically different than the serous, and that it is more similar to carcinoma of gastrointestinal tract, such as the colorectal cancer.  

**Case report**

A 69-year-old female was reported to the surgical clinic with the huge abdominal mass in November, 2013. She noticed the sudden stomach growth within the previous four months, with previous weight loss and the loss of appetite. She stated earlier problems with diverticula-related diseases and hiatal hernia in the stomach. She did not give birth. Menopause occurred at the age of 53. She denied the usage of tobacco and alcohol.

After physical examination, it was found that the patient was hemodynamically and respiratory stable, with medium osteomuscular material, pale skin, afebrile T=36.5 Celsius degree; blood pressure 170/100 mmHg; pulse of 100 beats per minute; with normal findings on the respiratory and cardio-vascular system. The abdomen was enormously enlarged to volume of the 70 cm, above the chest level, tight skin with prominent subcutaneous venous drawings, painless to palpation (Figure 1.). The patient was stagnant due to the large abdominal mass.

**Figure 1. Pre-surgical examination: enormously enlarged stomach of the patient.**

Laboratory findings showed hypokalemia, hyperazotemia (K 3.7 mmol/l, Urea 10.30 mmol/l). X-Ray showed enormous soft tissue mass on the subdiaphragmatic abdomen and the lower part of thorax, which significantly suppressed the diaphragm and the heart shadow. The CT of the abdomen was done, and it showed the extremely distended abdominal cavity, replete with coarse grained content, most probably thick gelatin which was monitored directly under the liver and spleen caudal to the bowl, lifting the front abdominal wall. Transversal diameter of the above-stated formation was over 50 cm. In continuity with the left adnexa cranially, above the entrance into the upper pelvic area, resting on to the bowl wall posteriorly repressed column, there was inhomogeneous mixed density which could have corresponded to the left ovary. However, an intimate contact with the descendent column included voluminous, imbibed mesocolon. The above-mentioned formation had a transversal diameter of 7 cm. Almost identical formation which was present at the right rib arch, was present on the wall of the compressed and repressed column. Taking into consideration the above-stated, we decided to perform exploratory laparotomy. Intraoperatively, the large cystic tumor sized 80 x 80 x 80 cm was found, and then opened forehand. (Figure 2.)

**Figure 2. Stuffed massive cyst in the abdomen.**

The cyst contained large amount of brownish turbid liquid. The wall of this cyst contained two necrotic formations – one was men’s fist sized, and the other tangerine-sized. Cyst adhered to the lateral wall of uterus and the right adnexa gave the impression that the above-stated mass was of
Ovarian cancers are considered to be the largest problem in the field of gynecologic oncology. The main reason lays in the fact that the early diagnosis is impossible, thus, the only option is to make the diagnosis in the advanced stadium of this disease. The early detection of this disease requires a reliable screening test. Nowadays three screening techniques are available: pelvic examination, CA-125 level and the vaginal ultra-sound which mainly does not establish the ovarian cancer but do suggest its presence.6

Ovarian cysts are considered large if they are 10 and 20 cm in diameter,7 and in cases when they cross these dimensions, they are considered gygantic cysts. Gygantic cystadenocarcinoma are rare clinical states. The largest removed ovarian tumor that was recorded in literature had a weight of 137.4 kg and it was removed in the form of intact mass by O’Hanlan.8 Also, ovarian adenocarcinom with the weight of 64 kg was described by Pool et al. and it was removed from an obese female.9 Mattioda de Lima et al. published their removal of cystadenocarcinom of weight 40 kg from a 57-year-old Brazilian female.10 In a 52-year-old female in the post-menopause period, a solid bilateral ovarian mass was diagnosed and removed with the size of right 25 x 30 cm, and left 15 x 12 cm, with weight 6.5 kg. Pathohystologically ovarian adenocarcinoma was confirmed by Satpathy.21

Although the growth of tumor markers CEA, CA 19-9, CA-125, alphafeto-proteins can be very useful in the differential diagnosis of malignant cystic tumors, they can also be increased in benign tumors. Cevik et al. published the removal of a large mucinous cystadenoma of the left ovary with dimensions of 40 x 30 x 20 cm with the higher value of tumor marker from a 13-year-old girl.13

Survival rate with the ovarian cancers is 30%, and this rate has not significantly changed within the last 30 years.14 The data show a significant connection between the disease stage, diagnosis and the five-year survival. Rate of patients diagnosed in the stadium I, when the tumor is localized on to the ovary, varies between 22 and 28%, with the survival rate between 72 and 81%. Survival rate for most of the patients in the stadiums II to IV is significantly worse.15

Literature shows that patients with the optimal tumor reduction, despite the advanced stage of disease, have middle survival rate with 39 months of survival, in comparison to 17 months of survival of patients with sub-optimal surgeries.16 However, retrospective analysis results of 349 patients with post-surgery residual mass smaller or equal to 1 cm suggest that patients with advanced disease stage with tumor reduction have a worse outcome than the patients with the early disease stage.17 Standard post-surgery therapy implies chemotherapy with cisplatin/paclitaxel or substitution of paclitaxel with cyclophosphamide for the advanced stages of the disease.18
Taking into consideration the fact that diagnostic and therapeutic procedures did not elucidate the origins of the tumor mass, as well as the fact that the gynecological and oncological principles were not respected in the sense of radicalness, the patient was suggested another surgery which implied total hysterectomy and left adnexectomy, which was rejected by the patient. Proposed chemotherapy was also rejected by the patient. Despite this, one year after the surgical treatment there were no signs of disease recurrence.

**Conclusion**

Diagnosis of the ovarian cancer in its early stage is very difficult. In fact, at the moment of diagnosis, most of them are late the advanced stage. Pathohistological diagnosis, disease stage, aggressive surgical treatment are, when possible, part of initial evaluation and the ovarian cancer treatment. Although in this concrete case the diagnosis was late, cystadenocarcinoma was still removed before dissemination.

**References**