

A case of spontaneous ovarian malignant neoplasm rupture and life-threatening massive intra-abdominal bleeding

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Informed Consent

The authors stated that the written consent was obtained from the patient presented with images in the study.

Conflict of Interest

No conflict of interest was declared by the authors.

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Abstract

Although ovarian cancer is the second most common gynecological cancer, it is the most common gynecological malignancy that causes death. Approximately 75% of the patients are diagnosed at an advanced stage, and high-grade serous-type ovarian cancer is detected in most of these patients. The final pathology result in our case was high-grade serous ovarian carcinoma. Our patient, 39 years old, applied to our emergency department with complaints of inability to urinate for three days and new onset abdominal pain. We were consulted because of detection of an 11 cm solid mass and globe vesicle in the pelvic region detected on the computed tomography (CT) taken in the emergency department. The patient's initial hemoglobin value was 11.2 g/dL and the beta-human chorionic gonadotropin (β -HCG) value was negative. During the follow-up, the patient's hemoglobin values were 9.2 and then decreased to 8.6, 8.1, and 6.5 g/dL after which hypotensive shock developed in the patient. The patient was taken for an emergency laparotomy. Intra-operatively, 1500 mL of intra-abdominal hemorrhagic fluid and diffuse tumor fragments were observed. In the right adnexal area, approximately 11 cm of ruptured tumor tissue, which may originate from the ovary or uterus, was observed. It was observed that the Douglas pouch and uterine, internal iliac, and some parts of the external iliac arteries were extensively invaded by the tumor and active bleeding occurred. Total Abdominal Hysterectomy + Bilateral Salpingo-Oophorectomy (TAH+BSO) was performed on the patient. Additional surgical intervention could not be performed because the patient had extensive vascular tumor invasion, heavy bleeding, and was in hypotensive shock. Six anti-bleeding sponges were placed on intra-abdominal bleeding areas. In addition, packing was applied to the patient by placing four sterile compresses and soft drains inside the abdomen. Tranexamic acid was administered to the patient, and six units of red blood cell suspension and four units of fresh frozen plasma were transfused. The patient was transferred by ambulance to a higher institution, which is a gynecological oncology center, for follow-up, treatment, and complementary surgery. In this case, we aimed to draw attention to a rare case of ovarian malignancy rupture and hypotensive shock.

Keywords: hypovolemic shock, ovarian tumor, serous carcinoma

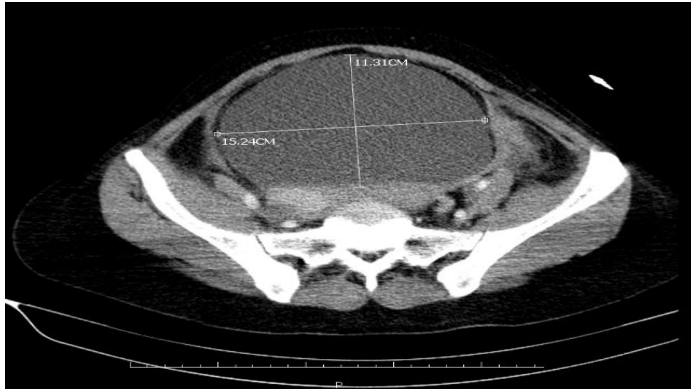
Introduction

Rupture of gynecological tumors can result in acute abdomen. Bleeding may occur depending on the tumor size and rupture site. Peritonitis and acute abdomen findings may be caused by bleeding. The literature presents rare cases of rupture and acute abdomen caused by teratomas [1,2]. Ovarian epithelial tumors are among the leading causes of death among gynecological cancer patients [3]. Ovarian cancers, on the other hand, take fifth place among cancer-related deaths [4]. Epithelial tumors have an important place in malignant neoplasms of the ovary. Among the epithelial tumors, serous and mucinous cystadenocarcinomas have an important place. The rupture of epithelial tumors is very rare and usually associated with surgery manipulation [5]. In rare cases, spontaneous tumor rupture has been reported in patients who were pregnant and using anticoagulants [6,7]. In addition, three cases of rupture of ovarian germ cell tumors (two cases of teratoma and one case of yolk sac tumor) and one case of rupture of benign dermoid cysts due to blunt abdominal trauma have been reported [8–11]. Our case is one of spontaneous rupture and serous carcinoma of the ovary.

Case presentation

Our patient, 39 years old, applied to our emergency service with complaints of inability to urinate for three days and new onset abdominal pain. Our patient did not have any co-morbid conditions and did not have a history of drug use. No anticoagulant use, trauma, or pregnancy was reported. On the computed tomography (CT) taken in the emergency room, a solid mass of 11 cm and a globe vesicle were detected in the pelvic region (Figure 1).

Figure 1: Glop vesical



After the urinary catheter was inserted in the emergency room, the patient's abdominal pain gradually increased. In addition, a rapid decrease was observed in the hemogram values of the patient after urinary catheter insertion. The patient's vital signs were aggressively impaired. We were consulted after the patient was found to have an 11 cm solid mass, which may have originated from the ovary. During the physical examination of the patient, the entire abdomen was tender, and rebound and defense were detected. Based on the pelvic examination, the cervix was normal, and the Douglas cavity was found to be involved with tumor tissue. Abdominal ultrasonography (USG) and transvaginal ultrasonography (TV-USG) revealed diffuse fluid in the hepatorenal and splenorenal areas (Figure 2). A 11 x 10 x 10 cm solid mass formation with irregular borders was observed in the pelvic region (Figure 3).

Figure 2: Hepatorenal fluid



Figure 3: Tumor



In addition, widespread free fluid was observed in the pelvic region. The hemoglobin value at the time of the patient's emergency admission was 11.2 g/dL, and the beta-human chorionic gonadotropin (β -HCG) value was negative. In the follow-up, the patient's hemoglobin values were 9.2, and then decreased dB to 8.6, 8.1, and 6.5 g/dL after which the patient developed hypotensive shock. The patient underwent an emergency laparotomy. The hemoglobin value measured at the beginning of the operation was 5.5 g/dL. Intra-operatively, 1500 mL of intra-abdominal hemorrhagic fluid and diffuse tumor fragments were observed. In the right adnexal area, approximately 11 cm of ruptured tumor tissue, which may have originated from the ovary or uterus, was observed. The Douglas pouch and uterine, internal iliac, and some parts of the external iliac arteries were observed to be extensively invaded by the tumor and actively bleeding. Total Abdominal Hysterectomy + Bilateral Salpingo-Oophorectomy (TAH+BSO) was performed on the patient. Additional surgery could not be performed because the patient had extensive vascular tumor invasion, massive bleeding, and hypotensive shock. Six bleeding stopper sponges were placed in the intra-abdominal bleeding areas. In addition, packing was applied to the patient by placing four sterile compresses and soft drains inside the abdomen. Tranexamic acid was administered to the patient, and six units of red blood cell suspension and four units of fresh frozen plasma were transfused. The patient was transferred by ambulance to a higher institution with a gynecological oncology center in terms of follow-up, treatment, and complementary surgery. When the patient's abdomen was opened again, it was observed that the bleeding had stopped. The patient underwent omentectomy, appendectomy, bilateral external iliac, and obturator and para-aortic lymph node dissection as complementary surgery. As a result of the pathology examined in our hospital, it was reported that the macroscopic image could be serous carcinoma of the ovary and/or endometrial papillary serous carcinoma.

Later, the diagnosis of serous carcinoma of the ovary was made based on immunohistochemical staining for the definitive diagnosis. Our patient died six months after the definitive diagnosis was made.

Discussion

Patients with food impaction often have underlying esophageal pathology. The risk is increased in people with previous gastrointestinal surgery [4]. The fact that most of the patients with esophageal bezoars have a history of Nissen fundoplication surgery showed that this surgical intervention,

which is widely used in the treatment of hiatal hernia and reflux esophagitis, paves the way for esophageal bezoars [2]. Esophageal bezoars are extremely rare, and only a few case reports have described esophageal bezoars. There are very few case reports specifically seen after fundoplication [3].

Patients with bezoars in the gastrointestinal tract are usually easily diagnosed. CT is helpful in diagnosis. However, the gold standard for diagnosis is endoscopy for upper gastrointestinal bezoars [4]. CT is the most commonly used imaging method in the diagnosis of bezoars and is very useful for definitive diagnosis in patients with intestinal obstruction [5]. However, endoscopy remains the gold standard for research because it can directly visualize and treat the condition [6]. In our case, we first determined the location of the bezoar via a CT scan. We then removed the bezoar with endoscopy.

Foreign bodies and bezoars in the esophagus should be removed within 24 hours because delays in the removal may increase the risk of complications. These complications include perforation, obstruction, and narrowing [4]. We removed the bezoar by endoscopy at the sixth hour of hospitalization in our case. The procedure was completed without complications.

Bezoar removal in the esophagus is most commonly done by pushing food into the stomach or mechanically removing it. As in our patient, it may be difficult to push the bezoar into the stomach in patients who have undergone fundoplication. The use of proteolytic enzymes is also not recommended due to the risk of perforation. Mechanical dissection is recommended to safely treat esophageal bezoars [7].

The ultimate goal of bezoar treatment is removal of the mass and prevention of its recurrence. The treatment options available for this condition should be well evaluated. The minimal benefits to patient should be considered [1]. Surgery is a difficult decision for esophageal bezoars. Rather, minimally invasive interventions with endoscopic procedures are preferred.

Conclusion

Esophageal bezoars should be considered in patients with a history of Nissen fundoplication operation when gastrointestinal obstruction is encountered with nausea, vomiting, and a feeling of obstruction in the retrosternal region. In such cases, CT may be first requested to support the diagnosis. Clearer imaging can be done with endoscopy. Endoscopy should not be delayed after a history of fundoplication and a pre-diagnosis of bezoars. More importantly, it should not be forgotten that it can be treated with endoscopy. It is safer to disintegrate the bezoar rather than push it into the stomach in patients with a history of fundoplication operation.

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