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P O L I S H G Y N E C O L O G Y

# GINEKOLOGIA POLSKA

ORGAN POLSKIEGO TOWARZYSTWA GINEKOLOGICZNEGO  
THE OFFICIAL JOURNAL OF THE POLISH GYNECOLOGICAL SOCIETY

ISSN: 0017-0011

e-ISSN: 2543-6767

## **A rare case of pseudochyloous ascites in the course of ovarian cancer**

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**DOI:** 10.5603/gpl.93812

**Article type:** Clinical vignette

**Submitted:** 2023-01-22

**Accepted:** 2023-10-21

**Published online:** 2024-04-25

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Articles in "Ginekologia Polska" are listed in PubMed.

## CLINICAL VIGNETTE

### **A rare case of pseudochyolous ascites in the course of ovarian cancer**

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#### **CASE REPORT**

A 61-year-old female patient was admitted to the Gynaecology and Obstetrics with a diagnosis of ascites and a suspected ovarian tumour. Diagnostic ultrasound and radiological examinations were performed. The overall probability score for the existence of a malignant tumour in the examined lesion was 95.1% according to the ADNEX model of the IOTA group. The patient's chest X-ray revealed no abnormalities.

For extended diagnosis, a laparoscopic procedure was performed; about 6 litres of milky fluid were found in the abdominal cavity. The peritoneal wall was reddened and friable. The omentum over the transverse colon was nodular. The body of the uterus and right adnexa formed adhesions with the omentum. The left adnexa had no macroscopically visible changes. A sample of fluid from the peritoneal cavity was taken for cytological examination and laboratory analysis of the ascitic fluid. The enlarged right ovary was freed and removed, implants were collected from the parietal peritoneum of the abdominal cavity, and several small nodules (< 2 cm) from the greater omentum were sent for histopathological examination. Due to the difficult conditions and the impossibility of achieving a complete cytoreduction, further surgery was abandoned (Fig. 1).

The laboratory analysis of the ascitic fluid revealed the presence of pseudochyolous ascites.

The postsurgical histopathological diagnosis confirmed high grade serous ovarian carcinoma (G3). Following the test results, the cancer was clinically staged at IIIC according to International Federation of Gynecology and Obstetrics (FIGO).

After the diagnosis was completed and established, the patient was transferred to the Oncology Centre in Bydgoszcz, where she underwent 3 courses of neoadjuvant chemotherapy with paclitaxel (PCL) and carboplatin (CBDCA) and delayed interval debulking surgery. Next, systemic therapy was continued following the treatment scheme. With diffuse neoplastic process and renal failure following right-sided urostomy and several palliative ascitic drains, the patient died 20 months after being diagnosed.

## **DISCUSSION**

Malignant ascites in ovarian cancer is often one of the first symptoms the patient presents with. The ascetic fluid is most frequently straw-coloured. A blood-red or milky colour is far less common. The presence of bloody ascites in patients with ovarian carcinoma is often associated with a poorer prognosis [1–4]. A milky-coloured ascites fluid requires further distinction into chylous and pseudo-chylous ascites (Tab. 1 [5, 6]). Chylous ascites in ovarian cancer may be connected with an advanced neoplastic process, lymph circulation disorders, damage to the lymph vessels or abdominal lymph node fibrosis. In cancer patients, chylous ascites may also occur as a complication following radiotherapy, most commonly 12 months after treatment [4]. Although abundant literature exists on the aetiology of chylous ascites, there is little information on the aetiology of pseudo-chylous ascites. The only available sources include single case reports of pseudo-chylous ascites during certain neoplastic and infectious diseases or cardiomyopathy [5, 7–9]. The diagnosis of pseudo-chylous ascites is made according to the long-established definition differentiating the two types of chylous ascites based on the ascitic fluid triglyceride levels [10].

This paper may serve as a stimulus to enhance our understanding of pseudo-chylous ascites, its aetiology, its influence on the underlying condition, the prognosis as well as treatment selection.

### **Article information and declarations**

#### ***Conflict of interest***

***??***

#### ***Supplementary material***

None.

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**Table 1.** Characteristics of chylous ascitic fluid and pseudochyloous ascites [5, 6]

Laboratory analysis of ascitic fluid	Chylous ascites	Pseudochyloous ascites in the patient
Colour	Milky	Milky
Triglyceride level	> 200 mg/dL	1.2 mg/dL
Total protein	2.5–7 g/dL	44.1 g/dL
Serum albumin ascitic gradient (SAAG)	< 1.1 g/L	1.4 g/L
Ascitic fluid cholesterol to serum cholesterol ratio (ASCR)	< 1	1.2

Lactate dehydrogenase (LDH)	110–200 IU/L	112 IU/L
Glucose	< 100 mg/dL	124 mg/dL



**Figure 1.** Ascitic fluid in pseudochylous ascites