

Diagnostic approach to ovarian cancer presenting with recurrent seizures: a case report

Indra Kasman^{1*}, Shinta Oktya Wardhani²

¹Internist Fellowship Oncology, Division of Hematology and Medical Oncology, Department of Internal Medicine, dr. Saiful Anwar Hospital, Malang, Indonesia, ²Division of Hematology and Medical Oncology, Department of Internal Medicine, Faculty of Medicine Universitas Brawijaya – dr. Saiful Anwar Hospital, Malang, Indonesia

<https://doi.org/10.22146/inajbcs.v57i3.Supplement.24560>

ABSTRACT

Submitted: 2025-09-12

Accepted : 2025-09-16

Ovarian cancer is the second most common cause of death among gynecologic malignancies. Ovarian cancer is generally diagnosed at an advanced stage due to nonspecific signs and symptoms. This case report presents a 50-year-old woman with an ovarian tumor suggestive of malignancy, diagnosed based on imaging findings and an elevated tumor marker CA 125. The gold standard examination, histopathological biopsy, could not be performed. The patient presented with abdominal distension, abdominal pain, and recurrent shortness of breath. Chest X-ray revealed recurrent pleural effusion. Abdominal CT scan demonstrated ascites accompanied by a solid ovarian mass suggestive of malignancy and a significant elevation of CA 125 tumor marker with a CA 125/CEA ratio of 622/1.7. However, cytological examination of the ascitic fluid did not indicate malignancy. The patient underwent repeated evacuation of pleural effusion and ascitic fluid. Biopsy or surgical intervention could not be performed; therefore, histopathological confirmation of the tumor was not possible. Recurrent seizures were observed in this patient, with brain MRI showing gliosis and cystic encephalomalacia. The patient received six cycles of neoadjuvant chemotherapy with carboplatin and paclitaxel, with the last dose administered on June 21, 2025. On June 29, 2025, however, the patient passed away after one day of hospitalization, the primary presenting complaint being decreased consciousness. The gold standard for diagnosing ovarian cancer is histopathological biopsy. If a histopathological biopsy cannot be performed, a combination of imaging examinations, cytology of ascitic fluid or pleural effusion, and an elevated CA 125:CEA ratio greater than 25 may be used. In this patient, ascitic fluid cytology yielded negative results, possibly due to inadequate sampling. Recurrent seizures and decreased consciousness in this patient may have been caused by gliosis, sequelae of stroke, or possible metastasis, thereby necessitating additional diagnostic modalities. Establishing a diagnosis of ovarian cancer poses unique challenges. A combination of imaging, tumor markers, and fluid cytology can serve as valuable modalities to guide the diagnosis of ovarian cancer when histopathological biopsy cannot be performed.

ABSTRAK

Kanker ovarium adalah keganasan ginekologi kedua yang paling mematikan. Kanker ovarium umumnya terdiagnosis pada stadium lanjut karena gejala dan tanda yang tidak spesifik. Laporan kasus ini memaparkan seorang perempuan usia 50 tahun dengan tumor ovarium mengesankan ganas yang terdiagnosis berdasarkan pencitraan dan peningkatan tumor marker CA 125. Pemeriksaan standar baku emas berupa biopsi histopatologi tidak dapat dikerjakan. Pasien datang dengan keluhan awal perut membesar disertai nyeri perut dan sesak berulang. Pada pemeriksaan rontgen toraks didapatkan efusi pleura berulang. Pemeriksaan CT scan abdomen didapatkan ascites disertai massa padat pada ovarium mengarah keganasan dan peningkatan signifikan pada tumor marker CA 125 dengan rasio 622/1,7 (CA 125 / CEA), namun sitologi cairan ascites tidak mengarah keganasan. Pasien dilakukan tindakan evakuasi cairan efusi pleura dan ascites berulang. Tindakan biopsi maupun surgikal tidak dapat dilakukan sehingga tidak dapat ditentukan histopatologi tumor. Manifestasi

Keywords:

Ovarian cancer;
CA 125;
recurrent seizures;
neoadjuvant;
gynecology

kejang berulang didapatkan pada pasien dengan temuan gliosis disertai *cystic encephalomalacia* pada MRI kepala. Pasien mendapat kemoterapi neoadjuvan dengan regimen carboplatin dan paclitaxel sebanyak 6 siklus dengan dosis terakhir pada 21 juni 2025. Namun pada tanggal 29 juni 2025 pasien dinyatakan meninggal dunia setelah rawat inap 1 hari dengan keluhan utama penurunan kesadaran. Standar baku emas diagnosis kanker ovarium berdasarkan biopsi histopatologi. Jika tindakan biopsi histopatologi tidak dapat dilakukan maka kita dapat menggunakan kombinasi pemeriksaan pencitraan, sitologi cairan ascites maupun efusi pleura disertai peningkatan rasio CA 125 : CEA lebih dari 25. Pada pasien ini, pemeriksaan sitologi cairan menunjukkan hasil non keganasan yang kemungkinan dapat disebabkan karena sampel cairan ascites yang tidak adekuat. Manifestasi kejang berulang dan penurunan kesadaran dapat disebabkan karena gliosis, sequelae stroke maupun metastase yang membutuhkan modalitas diagnosa tambahan. Menegakkan diagnosis kanker ovarium memiliki tantangan tersendiri. Kombinasi pencitraan, tumor marker dan sitologi cairan menjadi modalitas yang dapat digunakan dalam mengarahkan diagnosa kanker ovarium jika biopsi histopatologi tidak dapat dikerjakan.