

## ENDOMETROID BORDERLINE OVARIAN CARCINOMA RESULTING IN PSEUDO-MEIGS SYNDROME

Orestis Tsonis<sup>1</sup>, Fani Gkrozou\*<sup>2</sup>, Thomas Vrekoussis<sup>3</sup>, Minas Paschopoulos<sup>1</sup>

<sup>1</sup>University Hospital of Ioannina, Ioannina, Greece

<sup>2</sup>University Hospitals of Birmingham, Birmingham, UK

<sup>3</sup>University Hospital of Heraklion, Heraklion, Greece

### ABSTRACT

A case report of a 46-year-old postmenopausal woman with a adnexal mass or ovarian mass suspected to be malignant clinically and from the sonographic appearance. Patient presented with pleural effusions and ascites, which resolved after the removal of the mass by an explorative laparotomy. Final histology confirmed endometroid borderline ovarian tumor. The diagnosis of Pseudo-Meigs Syndrome was set; physicians should be suspicious in these rare cases.

**Key words:** ascites–borderline ovarian carcinoma–Meigs syndrome–ovarian mass–Pseudo-Meigs syndrome

★Corresponding Author: FaniGkrozou, The University Hospitals of Birmingham

### 1 INTRODUCTION

In 1937, Meigs and Cass presented 7 cases of female patients presenting with ovarian fibromas. These patients found to have ascites and pleural effusion. The term Meigs syndrome was set, describing patients with benign ovarian tumors, most frequently fibromas, which are accompanied by pleural effusions, usually right sided and ascites. Last but not least, it is important to mention that the removal of the tumor results in the cure of the patients without further ascites or pleural effusion. [1] The most common tumors resulting in Meigs syndrome are fibromas of the ovary, thecomas, granulosa cell tumors, and Brenner tumors. [2]

Nevertheless, in the literature other type of tumors (stromal ovarian, mucinous cystadenoma and teratomas), are described to cause Pseudo-Meigs syndrome by benign ovarian tumors other than fibromas. [3, 4] The Pseudo-Meigs syndrome is defined as benign cysts of the ovary and secondary metastatic tumors to ovary if associated with hydrothorax. [5]

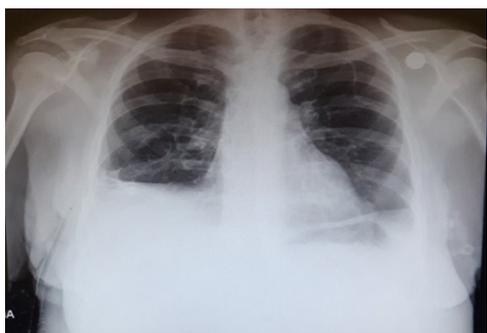
### 2 CLINICAL PRESENTATION

A 46-year-old female patient with a history of Chronic Obstructive Pulmonary Disease (COPD) and a free Family

History, was admitted to the local hospital, complaining for dyspnea, bloating and general discomfort. The patient underwent a CT scan without contrast (due to a history of allergy in the contrast medium) and the results showed a right-sided ovarian mass, as well as, ascites and pleural effusion, predominantly in the right side. Due to the severity of the case, the patient was transferred in our tertiary facility, University Hospital of Ioannina for further investigation and management.

A thorough history was taken and patient found suffering from this unknown abdominal mass for the last 3 months, whereas, dyspneic symptoms were present 5 months prior to admission. Blood results showed anemia (Hgb 7.4 g/dl) and ca 125 marker was elevated at 676.70 IU/ml. The patient, pre-operatively, was transfused with 4 units of RBC.

Patient underwent a chest XRay, which confirm right side pleural effusion (Fig 1) An abdomino-pelvic ultrasound revealed significant ascites. Over a period of 36 days, 3 peritoneocentesis and 7 thoracocentesis were performed. The volume aspirated in total, was 700 ml and 6000 ml, respectively, with a series of negative for malignancy cytological examinations. A Bilau tube was placed 15 days prior to the operation. Each day the volume measured was approximately 400 ml. Cytological examinations and also a biopsy from the bladder, showed mesothelial cell hyperplasia, again negative for malignancy. Colonoscopy was negative for malignancy, as well.

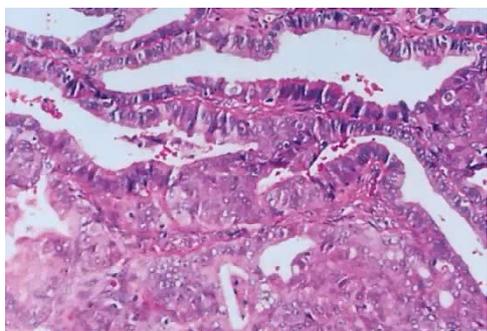


**Figure 1.** CXR of the patient showing right side pleural effusion

The patient underwent an explorative laparotomy, as per the MDT advice, which confirmed a right ovarian mass of 30x26x13,5 cm (Fig 2). The left ovary was intact and a total hysterectomy with bilateral salpingo-oophorectomy was performed. Resection of omentum and lymphonodules took place. No sites of metastasis were found. General surgeons joined the procedure and checked thoroughly the intestines. The final pathologist review confirmed an endometroid borderline ovarian tumor. (Fig 3).



**Figure 2.** Endometroid borderline ovarian tumor



**Figure 3.** Ovarian mass

The postoperative course was uneventful. Ascites and pleural effusions were cured and CA-125 was <6 IU/ml 1 month after the procedure. No sign of recurrence 3 months after the operation. The patient received 6 courses of both intravenous and intraperitoneal chemotherapy.

### 3 DISCUSSION

This case report shows the importance of the clinical examination in cases of Pseudo-Meigs syndrome. In this case, the endometroid borderline ovarian tumor mimics a metastatic pelvic malignancy.

According to WHO classification of ovarian neoplasms, endometroid borderline tumor falls into the category of endometroid tumors, between the malignant type (endometroid adenocarcinoma) and the benign type (cystadenoma)

in the literature, there is only one more case of bilateral high grade endometroid carcinomas presenting with Pseudo-Meigs syndrome from 1999. [6]

The diagnosis of Meigs syndrome is one of exclusion and usually is set postoperative when the ascites and the pleural effusions resolve, and the pathologists confirm the histological type of the tumor. [5]

Patients presenting with similar signs and symptoms with a negative cytological examination have usually a better prognosis. [7]

This group of patients is, usually, admitted to the hospital due to respiratory distress symptoms, such as dyspnea.

Most importantly, in patients where, negative cytology is yielded on aspiration with the presence of ascites and pleural effusions must thoroughly be examined and Meigs' and Pseudo-Meigs syndrome should fall into the differential diagnosis for a better management and treatment of the patient. [8, 9] Although elevated CA-125 is unusual for Meigs syndrome, there have been reports suggesting the possible mechanism leading to this finding. [10] The clinicians must suspect the rare appearance of Meigs syndrome in cases where ascites and pleural effusions secondary to an ovarian mass is found.

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