Case Report

Meig’s Syndrome with Elevated CA 125: Case Report with a Journey through Literature

Catia Isabel Ferreira da Silva Guimaraes*, Sandra Afonso André and Fernando José Dias Nogueira
Centro Hospitalar de Lisboa Ocidental, Portugal1;Department of Endoscopy, Mai Hospital, Mali

Abstract

Meig’s syndrome is a rare syndrome that consists of a benign ovarian tumor accompanied by ascites and pleural effusion. Elevated serum carbohydrate antigen 125 (CA 125) levels in postmenopausal women with solid adnexal masses, ascites and pleural effusion are highly suggestive for malignant ovarian tumors. Patients with Meig’s syndrome have a benign disease, with good prognosis, but can also have elevated serum CA 125 levels. The authors present a case report of Meig’s syndrome caused by a fibrothecoma with elevated CA 125 levels in a postmenopausal woman. That is a rare cause of pleural effusion, which is interesting because of its diagnosis and clinical course. The authors will also discuss the pathophysiology of this disease.

Keywords: Meig’s syndrome; Ovarian tumor; Pleural effusion

Background

The occurrence of pleural effusion associated with ascites and an ovarian fibroma or fibrothecoma was first described as a clinical syndrome by Meigs and Cass in 1937 [1-3]. Elevated serum carbohydrate antigen 125 (CA 125) levels in postmenopausal women with solid adnexal masses, ascites and pleural effusion are highly suggestive for malignant ovarian tumor [1-4]. A minority of these patients has a benign condition known as Meigs’ syndrome; therefore it is mandatory surgery and histological confirmation of the preoperative diagnosis [2]. Clinicians should be aware of this clinical entity because of its benignity and differential diagnosis with malignant ovarian tumors that can be similar at presentation but have a different treatment and prognosis [5-8].

Case History

A 67-years-old, non-smoking, woman with a history of hypothyroidism, depressive syndrome and vertiginous syndrome, was admitted to our hospital complaining of right, moderate intensity, chest pain associated with cough with sputum, nonspecific asthenia and anorexia for at least a month. Family history and socio-professional history were without clinical relevance. Previously she had been medicated with two antibiotics admitting without benefit.

Chest examination revealed dullness to percussion, decreased vocal vibrations and lack of breath sounds in the lower half of right lung. Blood chemistry was within normal limits except for an elevated serum B-type natriuretic peptide level. Arterial blood gas analysis was normal.

The chest radiograph showed a right-sided pleural effusion. The patient was submitted to pleural drainage yielded 1.500 mL of serofibrinous fluid and referred to Pulmonology service. At the first visit we documented recurrence of the pleural effusion and the patient complained about a discomfort in the lower abdomen and abdominal distention. On physical examination she had a distended abdomen with dullness in percussion and a positive shifting dullness, with a firm and immobile pelvic mass. It was performed another thoracoacentesis and a pleural biopsy that revealed non-specific fibrinous pleurisy. Gram stain and acid fast stains also were reported as negative. Abdominopelvic computed tomography (CT; Figure 1) showed a massive, solid, heterogeneous pelvic mass (138 mm). The hydrothorax and ascites rapidly resolved in the early postoperative period, without malignant cells. Histopathological examination of the left adnexal mass was consistent with a fibrothecoma ovarian. The hydrothorax and ascites rapidly resolved in the early postoperative period, without recurrence. The patient had an uneventful postoperative course.

Corresponding author: Catia Isabel Ferreira da Silva Guimaraes, Centro Hospitalar de Lisboa Ocidental, Portugal; Tel: (+351) 967697225; E-mail: catia-gui@hotmail.com

Received November 26, 2015; Accepted December 16, 2015; Published December 21, 2015


Copyright: © 2015 Guimaraes CIFDS, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
as a result of vascular invasion, inflammation and tissue destruction associated with malignant disease, during menstruation or pregnancy and in some benign conditions (endometriosis, peritonitis or cirrhosis) particularly with ascites [1,2,4,6]. The literature concerning Meigs’ syndrome highlights the presence of normal or only mildly raised serum CA 125 levels and normal human chorionic gonadotropin (hCG) and alpha-fetoprotein (AFP) levels [10]. The interval between diagnosis of the disease and surgery might play a role in the mechanisms of developing elevated serum CA 125 levels. An early recognition of this syndrome with promptly resolution may explain normal CA 125 levels, as described in the literature [8].

The diagnosis of Meigs’ syndrome is a real clinical challenge. A small percentage of patients presenting with a pelvic mass, ascites and pleural effusion with elevated serum CA 125 levels will have a benign condition, therefore it is mandatory the surgery for histological confirmation. In this context, Meigs’ syndrome should be considered in the differential diagnosis; although this syndrome mimics a malignant condition, it is a benign disease with a very good prognosis and complete resolution after tumor removal. It is crucial to have a high diagnostic suspicion in order to ensure a quick and correct identification of this entity for a timely treatment.

References