CASE REPORT

A challenging case of pseudo Meigs syndrome: A case report

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Abstract

Meigs Syndrome is a rare condition characterised by Ovarian fibroma, ascites and pleural effusion. Pseudo Meigs is called so because it mimics Meigs but occurs with tumours other than fibromas. The objective of this case report is to shed light on the diverse presentations of Ovarian carcinomas. We herein report a rare case of Pseudo Meigs syndrome in a 32-year-old female patient parity one and no miscarriage and who had right-sided ovarian mass, gross ascites and right-sided pleural effusion with cancer antigen 125 value of 518.5 IU/L. Clinical Diagnosis was that of Meigs Syndrome. The patient underwent laparotomy for surgical staging and large right-sided ovarian mass with draining of nine litres of ascitic fluid and total abdominal hysterectomy and bilateral salpingo-oophorectomy. The histopathology report showed that it was Endometroid Adenocarcinoma FIGO Grade 3. Definitive diagnosis was that of Pseudo Meigs Syndrome. The case was a diagnostic challenge and difficult to manage. The diverse presentation of ovarian carcinomas makes them difficult to diagnose and clinicians should have a high index of suspicion while managing such cases.

Keywords: Ovarian Fibroma, Pleural effusion, Ascites.

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Introduction

Meigs Syndrome is a triad of benign ovarian tumours (fibromas) with ascites and pleural effusion that resolves after resection of the tumour.[1] Pseudo Meigs is characterised by coexistence of pleural effusion, ascites and other ovarian benign (other than fibroma) or malignant tumours, pelvic tumours or gastrointestinal tract malignancies.[2] Meigs and Cass reported seven cases of ovarian fibromas with ascites and pleural effusion in 1937.[1] Elevated serum cancer antigen 125 level, pleural effusion and ascites resolve after tumour resection.[1,3] The aetiology of ascites and pleural effusion is speculative. Clinical presentation is fatigue, dyspnoea, and abdominal distension. Diagnosis is reached by surgical removal and histopathology. The uniqueness in this case lies in its presentation and diagnosis. A large adnexal mass that presents with gross ascites and right-sided pleural effusion was clinically diagnosed as Meigs syndrome (benign fibroma) but turned out to be carcinomatous on histopathology.

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Case Report

A 32-year-old female, married for nine years, resident of Lahore, Punjab, presented in Shalamar hospital, Lahore in April 2019. She was para one, abortion nil, with no alive issue, and presented with shortness of breath and abdominal distension for two months. The patient's main concern was progressive shortness of breath. Initially it was on exertion but gradually it progressed to shortness of breath at rest as well. There was no history of orthopnoea. The patient also had sudden increase in abdominal girth for the last two months. It was not associated with any change in bowel or urinary habits, but it interrupted her daily chores. She had secondary amenorrhoea for the past one year and serum beta human chorionic gonadotrophin was in non-pregnant range. The patient had undergone myomectomy and ovarian cystectomy four years back. She had laparoscopic cholecystectomy two years back. She had vaginally delivered an alive female baby eight years back. It was a pre-term birth at seven months. The baby expired due to respiratory distress. There is no history of carcinomas in the family. She is a non-smoker and non-alcoholic and belongs to low income group.

On examination, she was a young woman of average height and built with tachypnoea, absent breath sounds on right side, and gross ascites with presence of fluid thrill. On bimanual pelvic examination, anteverted uterus with restricted mobility and right fornix fullness was noted. She was admitted in hospital for further workup and management. Her baseline investigations were normal.

Serum cancer antigen 125 was 518.5 IU/L

On ultrasound scan, a solid well-defined rounded, slightly hyperechoic lesion arising from the right adnexa 11.5cm with internal vascularity was visible. There was a 4.5cm hypoechoic lesion in the left adnexa and massive ascites. X-ray of the chest showed tracheal shift to the left side and collapsed lung on the right side due to massive pleural effusion (Figure:.B).

CT scan showed right hemipelvis heterogeneously enhancing mass of 12x10x11 cm, most likely of adnexal

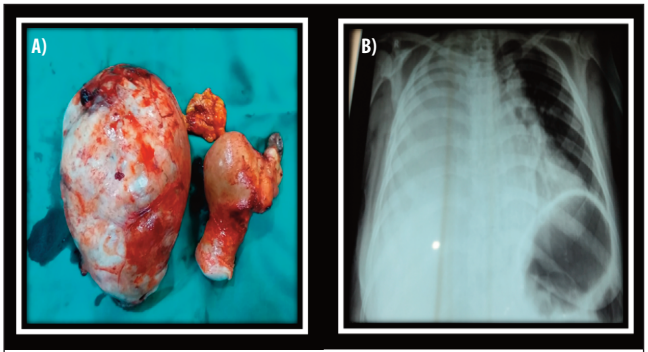

Figure: A) Right sided Ovarian Mass. B) Right sided pleural effusion.

origin with gross ascites. Left adnexal simple cyst of the size 4.5x4.4 cm was noted.

The diagnosis of Meigs Syndrome was made initially after excluding decompensated chronic liver disease as the cause of ascites. Tuberculosis was ruled out because of absence of acid fast bacillus in ascitic fluid and adenosine deaminase in normal ranges. Her urea and creatinine were in normal ranges and urine complete examination showed no proteinuria, so nephrotic syndrome was excluded as the cause of ascites and pleural effusion. The ascitic and pleural fluid was negative for malignant cells, so a benign condition was suspected.

The patient was admitted with a plan of laparotomy, and a multidisciplinary approach was taken.

Pleural tap was performed twice (4 litres) and ascitic tap (3 litres) once which was negative for malignant cells. Despite repetitive pleural taps and multiple intravenous albumin infusions pleural effusion and ascites was not subsiding and the patient's shortness of breath was worsening. Finally, chest intubation was done and 2.3 litres of pleural fluid was drained.

Staging Laparotomy was performed after detailed counselling of the patient's attendants. Nine litres of ascitic fluid was aspirated. Right-sided 11x12 cm mass with complex solid cystic and haemorrhagic areas, extensive vascularity and overlying adherent small intestine was noted (Figure: A). Left-sided 4x4cm cyst with same features was noted. Omental biopsy was taken. Total abdominal hysterectomy with bilateral salpingo oophorectomy was done along with omental biopsy and the sample was sent for histopathology. The abdomen was closed with tension sutures.

The patient was shifted to the ICU and one unit of blood was transfused post- operatively. On the first post-operative day, the patient was stable, oral free and was shifted to the ward. The chest tube was clamped on the fourth post-operative day and removed on the fifth post-operative day with the patient's condition stable. The patient was discharged on the eighth post-operative day with sutures removed and wound healthy.

The histopathology report showed it was Endometroid Adenocarcinoma with FIGO grade 3 in the right ovary with size of 14x10.5x7.5cm and specimen integrity was intact with no ovarian surface involvement p T1a Nx Mx.

Discussion

In this case, the patient had right-sided ovarian mass along with right-sided pleural effusion and gross ascites with elevated serum carcinoembryonic antigen 125 level. Clinical diagnosis was of Meigs Syndrome. The diagnosis of Pseudo Meigs Syndrome was made after surgical resection of the tumour with histopathology report of Endometroid Adenocarcinoma of the ovary. The patient clinically improved after surgery with complete resolution of pleural effusion and ascites and serum cancer antigen 125 level back to normal (13 IU/L). It was a FIGO Grade 3 tumour with five year survival rate of 63%. Survival rates are greater than 95% for stage 1A and 1B and 51% for stage III and stage IV.[4]

The aetiology of the fluid accumulation remains unclear, it may be related to lymphatic obstruction, peritoneal irritation tumours with myxoid component to stroma, tumour torsion, hormonal, or chemical mediators.[1] To the best of our knowledge, two cases of Pseudo-Meigs associated with Endometroid adenocarcinoma have been reported.[5,6] The Pseudo-Meigs syndrome can be combined with either benign or malignant neoplasms. Pseudo Meigs syndrome is also reported with uterine leiomyoma and secondary metastasis from colorectal carcinomas.[7-9]

A new terminology of Pseudo Pseudo Meigs syndrome is also emerging which is a manifestation of systemic lupus erythematosus SLE characterised by pleural effusion, ascites and raised cancer antigen 125 levels.[10] Endometroid adenocarcinoma is a type of epithelial ovarian tumour associated with endometriosis.[4]

Conclusion

Pseudo Meigs syndrome is rare differential diagnosis for patients with pleural effusion, ascites and ovarian mass. All other causes of gross ascites and pleural effusion should be ruled out before making a diagnosis.

In our patient, it was associated with Endometroid Adenocarcinoma of ovary FIGO Grade 3 which is usually associated with endometriosis and accounts for 10% of ovarian tumours. Adjuvant chemotherapy is indicated in this patient.

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