

**MEIGS SYNDROME: A RARE CASE REPORT****A. Hemalatha<sup>\*1</sup>, K. Udaya Lakshmi<sup>1</sup>, V. Bhavya<sup>1</sup>, P. Lakshmi<sup>2</sup>, D. Ranganayakulu<sup>3</sup>**Pharm D VI Year<sup>1\*</sup>, Assistant Professor<sup>2</sup>, Department of Pharmacy Practice, Principal<sup>3</sup>, Sri Padmavathi School of Pharmacy, Tiruchanoor, Tirupati - 517503, India.**\*Corresponding Author: A. Hemalatha**

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**ABSTRACT**

Meig's syndrome is defined as the presence of ascites and hydrothorax in association with a benign ovarian tumor. It is a rare clinical entity, which is also considered to be an uncommon complication of benign leiomyoma of the female genital tract. Pleural effusion and ascites resolve with successful resection of the ovarian tumor. Although Meig's syndrome mimics a malignant condition, it is a benign disease and has a very good prognosis if properly managed. Appropriate and accurate diagnosis is necessary to differentiate the syndrome from other ovarian malignancies.

**KEYWORDS:** Meig's, hydrothorax, tumor, malignancies.**INTRODUCTION**

Meigs syndrome is a rare triad of ascites, pleural effusion and benign solid ovarian tumor. Characteristically ascites and pleural effusion resolves spontaneously and permanently after removal of the tumor. Although Meig's syndrome mimics a malignant condition, it is a benign disease and has a good prognosis if properly managed. Life expectancy after surgical removal of the tumor is similar that of the general population.<sup>[1]</sup>

In 1934, Salmon described the association of pleural effusion with benign pelvic tumors. In 1937, Meigs and Cass described 7 cases of ovarian fibromas associated with ascites and pleural effusion. The syndrome was named as Meig's syndrome by Rhoads and Terrel in 1937. In 1954, Meigs proposed limiting true Meigs syndrome to benign and solid ovarian tumors accompanied by ascites and pleural effusion, with the condition that removal of the tumor cures the patient without recurrence. Histologically, the benign ovarian tumor may be a fibroma, thecoma, cystadenoma, or granulosa cell tumor.

**CASE REPORT**

A 45-year-old female, who was healthy until 2 months earlier, when she was brought to the hospital by her husband with chief complaints of abdominal distention, abdominal pain since 10 days and decreased appetite, weight loss, burning micturition, chest pain, shortness of breath on taking food was present. On the day of admission she was conscious and coherent. Laboratory data included Routine haemogram revealed hemoglobin 13 gm%, urinalysis, like urine pH=7, specific gravity

1.005, Total leukocytes 05 cells/cumm, lymphocytes: 100%. Liver function test was SGOT: 48 u/L, SGPT: 10 u/L, ALP: 132 U/L, Total bilirubin 1.5 mg/dl, Direct bilirubin: 0.5 mg/dl, serum protein: 6.8 mg/dl, serum albumin: 3.8 mg/dl. With normal triglyceride, cholesterol, and uric acid levels. Ultrasound abdominal report revealed that free fluid noted in peritoneal cavity and pelvic cavity, B/L pleural effusion with minimal ascites was observed. On examining the abdomen it was noted that abdomen was distended shifting dullness, tenderness was present hypo pigmented patches were present. Cloudy white discharge was observed in the vagina, rectal examination showed that parametrium and rectal mucosa firm. EEG showed slowing on background rhythm and no epileptic activity. From the above examinations, the physician was diagnosed as MEIG'S SYNDROME and the patient was on treatment with IV Fluids (1/2 DNS + Kcl), T. NORFLOX 400MG BD, T. B-COMPLEX OD, SYP. LACTULOSE 15ML BD, T. PANTOP 40MG OD, T. METROGYL 400MG TID, T. IFA OD, T. CALCIUM OD, I. DERRIPHYLLIN 1 amp IM. And the patient was discharged after 13 days. Pleural fluid analysis was performed which contains albumin: 2.39 mg/dl, ADA: 8.3 U/L.

**DISCUSSION**

Meigs syndrome, is named after Meig, was first described by demons of France and Lawson Tait of England. It was characterized by ovarian benign solid tumor which is usually a fibroma, ascites and hydrothorax (normally right sided). Salmon in 1934 described the association of pleural effusion with benign tumors, in 1937, Meigs and Cass described 7 cases of

ovarian fibromas associated with ascites and pleural effusion.<sup>[1]</sup> This condition resolves spontaneously and permanently after removal of the tumor.<sup>[2]</sup>

Fibromas are the most common tumors of ovarian stroma and constitute 4% of all ovarian neoplasms. They are present during the fifth and sixth decade. 10 to 15% of all fibromas are associated with ascites while only 1% have pleural effusion in addition to ascites.<sup>[2]</sup> These tumors have an extremely low malignant potential and occurs after the age of 30. Other pelvic tumors such as Brenner tumor and granulosa cell tumor can be associated with ascites and pleural effusion and is described as pseudo Meigs' syndrome. Bilateralism is seen in 15%. On gross appearance they are solid and firm, while microscopically there are bundles of bland spindle cells with elongated nuclei, intersected by bands of collagenous fibrous tissue. Ascites occurs in 10-14% of the cases when the tumor size is more than 10 cm.<sup>[2]</sup>

Etiology of ascites can be explained by following mechanism:

- Partial torsion of the ovarian vascular pedicle leading to venous inflammation and transudation (weeping of serous fluid from the tumor), which enters the pleural space through the diaphragmatic lymphatics or through defects in the diaphragm which are more common on the right.<sup>[2]</sup>
- Exudation from the peritoneum because of mechanical exasperation by the hard heavy mobile tumor (most likely).<sup>[2]</sup>
- Deterioration of the fibroma.<sup>[2]</sup>
- Changes in the capsular veins of the fibroma.<sup>[2]</sup>
- Probable active secretion by the tumor.<sup>[2]</sup>

Diagnosis is essentially clinical. Cytomorphology of the fluids and Serum CA125 levels may be used to rule out malignant nature of the lesion. It includes ultrasound of the pelvis, CT of the chest, abdomen and pelvis, MRI of the pelvis, sampling of the pleural as well as the ascitic fluid and serum markers of malignancy like CA125 (3,6).

CA125 antigen is a tumor marker produced by many clinical tissues including epithelium of the fallopian tubes, endometrium, endocervix, ovaries, and mesothelial cells of the pleura, pericardium and peritoneum (9). It is found elevated during some physiologic conditions such as menstruation or pregnancy and in some benign conditions such as endometriosis, peritonitis, cirrhosis with ascites, PID, uterine leiomyoma, pleuritis, pericarditis and peritonitis (10-12). This tumor marker levels (normal up to 35 IU/mL) increase in malignant ovarian tumors due to inflammation associated with malignancy (3).

The diagnostic criteria are: The main differential diagnosis is with a malignant ovarian tumor

- They are much more common than Meigs' syndrome and tend to produce profuse ascites with high protein content.

- Pleural effusion is less common unless due to pulmonary metastases.
- Specific therapy for Meigs syndrome is surgical removal of the tumor. Before operation, aspiration of pleural effusion and ascites may be required to improve pulmonary function.

The operation includes full laparotomy to exclude other causes of malignancy, including bowel:

- In women of reproductive age a unilateral salpingo-oophorectomy is usually performed.
- In girls who are before the menarche, wedge resection may be preferred if feasible.
- After the menopause an operation of total abdominal hysterectomy with bilateral salpingo-oophorectomy is usual.<sup>[6]</sup>

Patient was not willing to perform surgery so the symptomatic therapy was prescribed by the physician. Ascites, breathlessness was subsided. Patient requires specific therapy i.e., surgery in order to reduce the symptoms but she was nervous and not willing to perform the surgery. The patient was discharged after 13 days her willing by providing suggestive therapy.

## CONCLUSION

In our case, the patient presented with the classical triad of ovarian tumor, ascites, and hydrothorax. This condition suggest malignant ovarian tumor particularly in menopausal women. Therefore, for the patient with mentioned condition should proceed for surgery. As surgery is curative and life expectancy is similar to the general population. In our patient surgery was not performed and she was discharged with ill health and not willing to do surgery. The main intention of our work is to bring awareness among public and health care professionals about disease and its complications.

## REFERENCES

1. Aparna R, Deepa K et.al. Nitte: University J of Health Science: Fibroma Of Ovary Presenting as Meigs Syndrome, 2012; 2(3): 24-26.
2. Datta R. C Sharma P, Choudhury S et.al: J Obstet Gynecol India: Meigs syndrome - A case report, 2006; 56(5): 451-453.
3. Shahla Y, Abolhasan A, Majid S et.al: Caspian J Intern Med: Meigs' syndrome with elevated serum CA125 in a case of ovarian fibroma /thecoma, 2014; 5(1): 43-45
4. Prasad K. S, Bafna UD, Balaiah. K, et.al: Online Journal of Health and Allied Sciences: Ovarian Fibroma with Meigs Syndrome associated with Elevated CA125 - A Rare Case: 2010; 9(2).
5. <https://patient.info/in/doctor/meigs-syndrome>.
6. <https://emedicine.medscape.com/article/255450-overview>.
7. <https://radiopaedia.org/articles/meigs-syndrome>.
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5008483/>.