VOLUME-9, ISSUE-5, MAY -2020 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Pathology

NECROTIZING GRANULOMATOUS PIGMENTED FUNGAL LESION OF LEFT OVARY -A RARE CASE REPORT

Surekha Bhalekar	Associate Professor at D. Y. Patil University School of Medicine, Navi Mumbai
Shilpy Singh*	Assistant Professor at D. Y. Patil University School of Medicine, Navi Mumbai *Corresponding Author
Kritika Singh	Tutor at D. Y. Patil University School of Medicine, Navi Mumbai
Rajiv Rao	Professor and Head of Pathology Dept. at D. Y. Patil University School of Medicine, Navi Mumbai

ABSTRACT Granulomatous inflammation is a histologic pattern of tissue reaction, which appears following cell injury. Granulomatous inflammation is caused by a variety of conditions including infection, autoimmune, toxic, allergic, drug, and neoplastic conditions. [1]We present a case of 29 Yr/F presented to OBGY Dept. of D Y Patil University School of Medicine with chief complaints of abdominal pain. After appropriate work up, a clinical diagnosis of Serous Cystadenoma was made. The final pathology report revealed necrotizing granulomatous pigmented fungal lesions of the ovary.

KEYWORDS : Ovary, Pigmented fungal lesion, Necrotising Granuloma

INTRODUCTION-

Pigmented fungal granulomatous lesions of ovary are very rare. Worldwide, the most common cause of necrotizing granulomatous lesion of ovary is Tuberculosis. [2] In pigmented fungi, the agents are present in host tissue with brownish to olivaceous hyphal elements. The dark coloration of these fungi is due to the presence of melanin in the cell wall. This distinguishes them from other hyphomycetes that in tissue show similar morphology but lack pigmentation, the hyaline fungi, causing phaeohyphomycosis Clinically, phaeohyphomycosis range from superficial colonization to systemic abscess formation and dissemination [3].

Case report-

We present a case of 29 Yr/F, P3L3 presented to the OBGY department of D. Y. Patil University School of Medicine with chief complaints of abdominal pain since 3 months. Patient had a history of tubal ligation 6 months back and no history of IUCD, tuberculosis, tubercular contact, and no major abdominal surgery. Patient's CECT – Abdominal pelvis was done and it revealed – A Large multiloculated lobulated cystic lesion extending from the left adenexa to the supra-umblical region. Posteriorly the lesion is extending upto the pre rectal space. Laterally the lesion is displacing the bowel loops. The lesion measures 16.9 x 11 x 10.7 cms. in size. Internally the lesion shows multiple enhancing septe- Features suggestive of Serous Cystadenoma. Her CA 125 was 91 U/ml, β HCG < 0.10 mIU/ml and LDH was 232 IU/l. The cyst was removed and sent for histopathological examination to Dept. of Pathology , D. Y. Patil University School of Medicine.

Grossly-

Two Ovarian masses with a cut open cyst was received. The largest mass measures5 x 3.5 x 2 cms. in size. E/S was congested. C/S shows a well-defined yellow nodule measuring 3 x 2 cms. in size. The surrounding normal ovarian stroma showed a cystic hemorrhagic area at one end measuring 1 x 1 cms in size. Smaller mass was nodular and measures 4.5 x 3.5 x 2 cms. in size with irregular external surface. On cut open, yellow pus like fluid oozed out. C/S was yellowish white and glistening. The cut open cyst measuring 8 x 5.5 cms. in size. E/S and C/S of cyst is smooth with no solid areas. Cyst wall is thin with a thickness of 0.2 cm.

Microscopy revealed presence of multiple large granulomas with central necrosis, surrounded by peripheral palisading of epithelioid cells, many multinucleated giant cells, plasma cells, polymorphs and lymphocytes along with macrophages.

Special stains were performed and Gomori – Methenamine Silver and PAS stain showed presence of yeast like cells and short hyphae/pseudohyphae of pigmented fungus. The Zeihl-Neelson stain for acid-fast bacilli was negative.

Fig (1)

Fig (2)

Gross Images of Left ovarian cystic mass

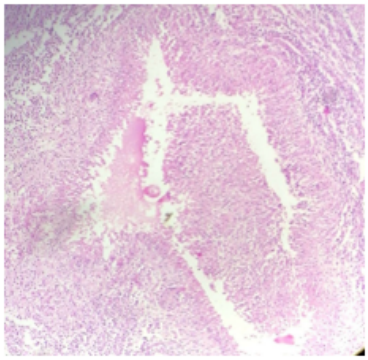

Fig (3) - Microscopy – Granulomas are seen with central necrosis (4 X)

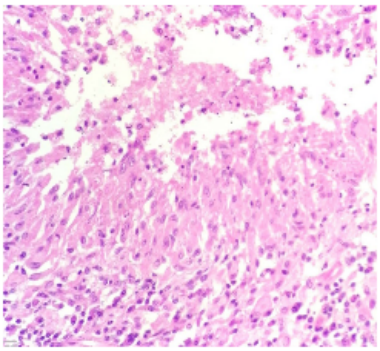

Fig (4) - Peripheral palisading of epithelioid cells along with inflammatory cells (40 X)

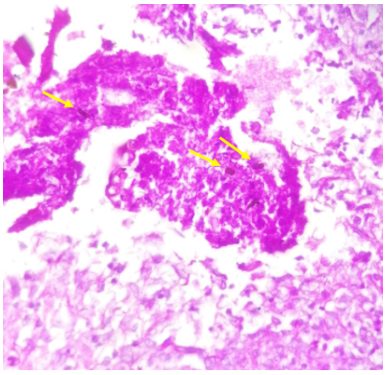

Fig (5) PAS stain – Arrow showing pigmented fungus

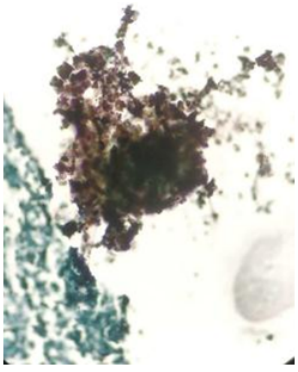

Fig. (6)

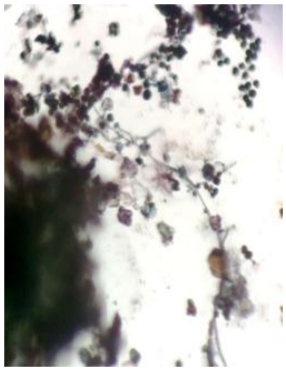

Fig. (7)

GMS Stain showing presence of yeast like cells and short hyphae/pseudohyphae of pigmented fungus.

DISCUSSION-

The present case is an extremely rare case of necrotizing granulomatous pigmented fungal lesion of ovary in a young para 3 patient.

According to cluggage et al [(2),] the most common cause of ovarian granuloma was a foreign body reaction to suture material introduced at a previous operative procedure. Other causes were Crohn's disease, previous diathermy, tuberculosis, a necrotising reaction following previous surgery, endometriosis, and bacterial tubo-ovarian abscess.[(2)]

In our case, as there was no previous history of any major surgery, the possibility of foreign body reaction to suture material or necrotizing reaction following previous surgery was ruled out.

As there was no history of tuberculosis or tubercular contact and based on negative Zeihl Neelson stain, possibility of tuberculosis was ruled out.

According to Marak et al [(4)], necrotizing granulomatous lesion of ovary can also be seen in sarcoidosis. As our case did not have any associated pulmonary manifestation, sarcoidosis was ruled out.

CONCLUSION-

Necrotising granulomatous pigmented fungal lesion of the ovary is an extremely rare diagnosis. The mainstay of treatment is antifungal drugs and the treatment differs on the basis of fungus type. The aim of this study was to notify this entity at an unusual site like ovary. Notifying such unusual case shall be helpful for future cases for accurate diagnosis and treatment.

REFERENCES:

1) Kabeer K. Shah et al Journal of Clinical Tuberculosis and Other Mycobacterial Diseases Volume 7, May 2017
(2) W Glenn McCluggage, Douglas C. Allen Published in Journal of clinical pathology, 1997
(3) Revankar SG, Sutton DA. 2010. Melanized fungi in human disease. Clin. Microbiol. Rev. 23:884–928.
(4) Creticus P. Marak et al, Uterine Sarcoidosis: A Rare Extrapulmonary Site of Sarcoidosis, Volume 2013 | Article ID 706738