

A Rare Case of Ovarian Aspergilloma

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ABSTRACT

Introduction: An Aspergilloma known as Mycetoma or fungus ball. *Aspergillus* spp is a fungus known to cause acquired and nosocomial infections in human beings. Isolated Ovarian Aspergillosis as well fungal infections of ovary are very rare. *A. fumigatus*, the most commonly infecting species. Anti-fungal prophylaxis should be given to high-risk patients. Posaconazole is often given as prophylaxis in immunocompromised patients.

Case Report: 50 year P2L2 postmenopausal woman, came with pain in lower abdomen since 6 months. History of loss of weight (10kgs) in last 1 year. Medical and surgical history was not contributory. On per vaginal examination uterus was atrophic retroverted with restricted mobility. A vague non tender cystic to firm mass felt in left adnexa which was not separate from the uterus and right fornix was free. Blood investigation including CA-125 was within normal range. Ultrasonography was suggestive of complex cystic lesion with fine septations and thick internal echoes noted in left adnexa and in pouch of dougles, calcifications were noted. Left ovary could not be visualized separately from the mass. Rest was normal. CT scan of abdomen pelvis showed left complex ovarian cyst. Clinical diagnosis of TO mass was made. Exploratory Laparotomy was performed, left side tubo-ovarian mass was noted. On histopathological examination left ovary was showing dense xanthogranulomatous inflammation with suppurations, eosinophilic abscesses and fungal hyphae with septae and branching resembling Aspergillosis.

Conclusion: Fungal infection of ovary is extremely rare entity, while treating infective ovarian pathology we must consider antifungal treatment with antibacterial treatment.

Keyword: Fungal infection of ovary, Ovarian Aspergilloma

INTRODUCTION

An Aspergilloma known as Mycetoma or fungus ball. *Aspergillus* spp is a fungus known to cause both acquired and nosocomial infections in human beings. The most commonly affected sites are the lungs, soft tissue and skin. It affects in people with underlying illnesses like tuberculosis or chronic obstructive pulmonary disease (COPD). Other non invasive manifestations include fungal sinusitis, otomycosis (ear infection), keratitis (eye infection) and onychomycosis (nail infection). Fungal infections like Candidiasis are a common cause of itching and vaginal discharge in females. Among the various fungal species, *Candida* is the most common pathogen seen in cervicovaginal smear whereas infection with other fungi like *Paracoccidioides* and *Aspergillus* are very rarely seen.¹

CASE REPORT

50 year old P2L2 post menopausal woman, came in Gynaecology OPD of K. J. Somaiya medical college with complain of vague pain in lower abdomen since 6 months which was aggravated in last 2 months. There was history of decreased appetite and loss of weight (10kgs) in last 1 year. There was no history of pulmonary tuberculosis, fever, pelvic inflammatory disease

(PID), use of any intrauterine device (IUD). Personal and family history were not contributory.

On general examination patient was vitally stable, BMI was 18.5 kg/m², pallor was present. Systemic and breast examination were normal. On per abdominal examination abdomen was soft and non tender. Per vaginal examination showed atrophic retroverted uterus with restricted mobility. A vague non tender cystic to firm mass approximately 5X6 cm in left adnexa felt which was not separate from the uterus. Right fornix was free. No lymph nodes were palpable.

On complete blood count hemoglobin found 8.3gm%, other investigations were in normal limit. ESR was 130 mm at the end of 1st hour, CA-125 was within normal range. Ultrasonography was suggestive of complex cystic lesion with fine septations and thick internal echoes approximately 6.4 X 5.6 cm noted in left adnexa and in pouch of dougles, calcifications were noted. Left ovary could not be visualized separately from the mass. Right ovary was normal. Evidence of minimal free fluid in pouch of Douglas.

CT scan of abdomen pelvis showed 5.7 X 5.3cm sized irregular, high density thick walled peripherally enhancing lesion with enhancing septa and calcific specks in its medial wall in left adnexa with left ovary not seen separately from lesion displacing the uterus towards the right side suggestive of left complex ovarian cyst. Also mild enhancing wall thickening was seen involving terminal Ileal loops and IC junction, caecum, proximal ascending colon, transverse colon with subcentrimetric sized lymph nodes in right iliac fossa and mesentery suggestive of infective etiology. Clinical diagnosis of TO mass was made. Exploratory Laparotomy was performed, intra operative finding were uterus appeared atrophic. Right tube and ovary appeared normal. Left side tubo-ovarian mass of 5X6 cm was noted. Mass was adherent posteriorly to colon and posterior surface of uterus. While removing the mass it got ruptured, pus like material approximately 10-15cc was present. Total abdominal hysterectomy with bilateral salphingo-oophorectomy done.

Gross findings on histopathology was showing left ovary 6X4X4 cm with whitish exudate and granular surface, endometrium was showing polypoidal thickening. Microscopic findings were showing fibrinoid necrosis and vasculitis of endometrial and cervical lining. Left ovary was showing dense xanthogranulomatous inflammation with suppurations, eosinophilic abscesses and fungal hyphae with septae and branching resembling Aspergillosis. Left fallopian tube

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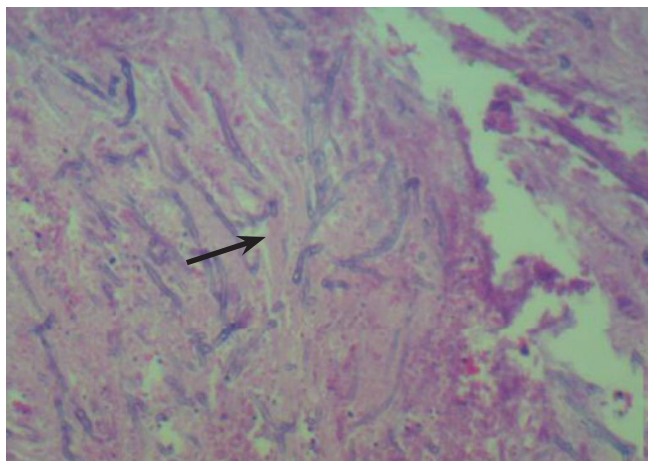


Figure-1: Microscopic picture of Aspergillus species

and omentum were showing dense xanthogranulomatous inflammation. Right ovary and fallopian tube were normal.

DISCUSSION

Isolated Ovarian Aspergillosis as well fungal infections of ovary are very rare. It is as a part of pelvic inflammatory disease (PID). Aspergillus in cervico-vaginal smear of an adult postmenopausal female with cervical squamous cell carcinoma.¹ Pelvic aspergillosis with tubo- ovarian abscess in renal trasplant recipient², are reported.

Diagnosis of invasive Aspergillosis can be done by using following diagnostic modalities like Imaging-HRCT, direct microscopy, histopathology,culture, Aspergillus DNA detection by PCR. These give the fungal walls a gray-black colour. The hyphae of Aspergillus species range in diameter from 2.5 to 4.5 μm . They have septate hyphae.³ Aspergillus hyphae tend to have dichotomous branching that is progressive and primarily at acute angles of about 45 (figure1). The infection with Aspergillus species most commonly transmitted by airborne conidia and the lung is the major site of infection. Disseminated disease almost always results from a primary pulmonary infection but it can also occur from skin inoculation.¹ The identification of Aspergillus species in female genital tract should prompt the clinician for further investigation to look for systemic focus. In our case systemic involvement could not be ruled out.

The current medical treatments for aggressive invasive Aspergillosis include voriconazole and liposomal amphotericin B in combination with surgical debridement.³ Other drugs used are amphotericin B, caspofungin (in combination therapy only), flucytosine (in combination therapy only), or itraconazole^{4,5} are used to treat this fungal infection. However, a growing proportion of infections are resistant to the triazoles.⁶ Aspergillus fumigatus, the most commonly infecting species, is intrinsically resistant to fluconazole. Anti-fungal prophylaxis should be given to high-risk, immunocompromised patients. Posaconazole is often given as prophylaxis in immunocompromised patients.

CONCLUSION

Fungal infection of ovary is extremely rare infection, while treating infective ovarian pathology we must consider antifungal treatment with antibacterial treatment. The aim of this case report was to notify an unusual site of infection by Aspergillus spp.

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