

Acute Endomyometritis with Adenomyosis of Uterus- A Rare Case Report

SHILPA MANIGATTA DODDAGOWDA¹, KALYANI RAJU², GOMATHY³, PREETHI UTNAL⁴

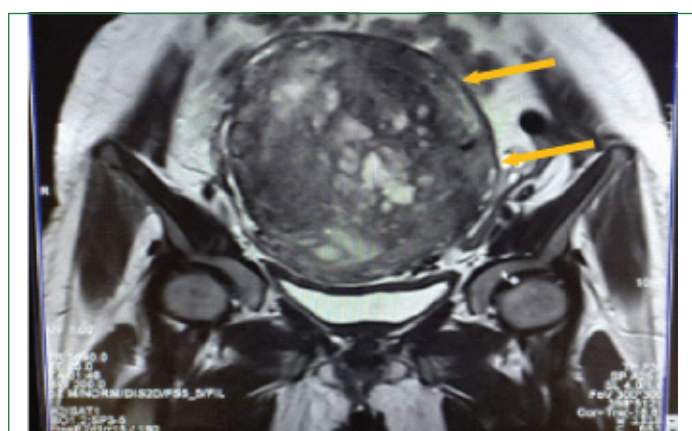
ABSTRACT

Adenomyosis is commonly encountered gynaecological problem and endomyometritis is the condition usually seen in postpartum period. Synchronous occurrence of these two conditions is not found in the literature till date. Here authors report a case in which 44 years old female patient the patient presented with the pain abdomen, fever, vomiting and clinically diagnosed as adenomyosis. Microscopically Myometrium showed areas of adenomyosis with transmural dense neutrophilic cell infiltration along with eosinophils and lymphocytes along with the lumen of the glands showing organised exudate with focal areas of necrosis. Final report of acute endomyometritis with adenomyosis was made. Patient was started on antibiotics and recovered well. After six months follow-up patient was doing well.

Keywords: Endometrium, Infection, Myometrium

CASE REPORT

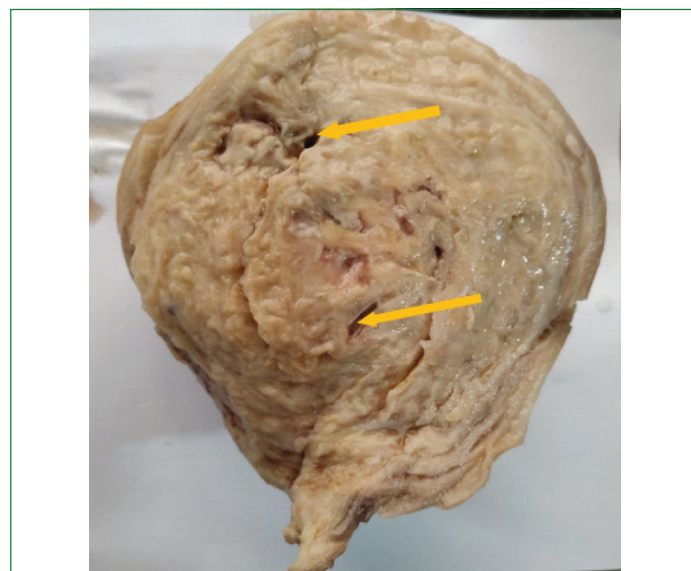
A 44-year-old female para 2 and living 2 presented with chief complaints of diffuse pain in abdomen and fever since three days, vomiting since one day. Pain was non-radiating and dull aching type. Fever was continuous and associated with chills and rigor. Vomiting was non-projectile and non-bilious. Patient also had complaints of irregular heavy menstrual bleeding since two years. After the admission, routine blood investigations were done where in haemoglobin was 7.2gm%, WBC count was 16.14 thousands/mm³ with neutrophilia. There was increase in post prandial blood sugar level i.e., 259.00 mg/dL. As the symptoms did not subside, she was started on antibiotics. USG Abdomen and pelvis showed bulky uterus with a size of 15 x 13 x 8.8 cm with loss of myometrial interface with sub-endometriotic cystic changes-likely adenomyosis. MRI pelvis showed grossly enlarged uterus (14x12x9.9cm) with widened junctional zone of anterior and posterior myometrial walls with avid heterogenous enhancement on post-contrast study. Based on clinical and radiographical evaluation, the provisional diagnosis of adenomyosis was made [Table/Fig-1].



[Table/Fig-1]: MRI pelvis showed grossly enlarged uterus (14x12x9.9 cm) with widened junctional zone of anterior and posterior myometrial walls with avid heterogeneous enhancement on post-contrast study (arrow)-likely adenomyosis.

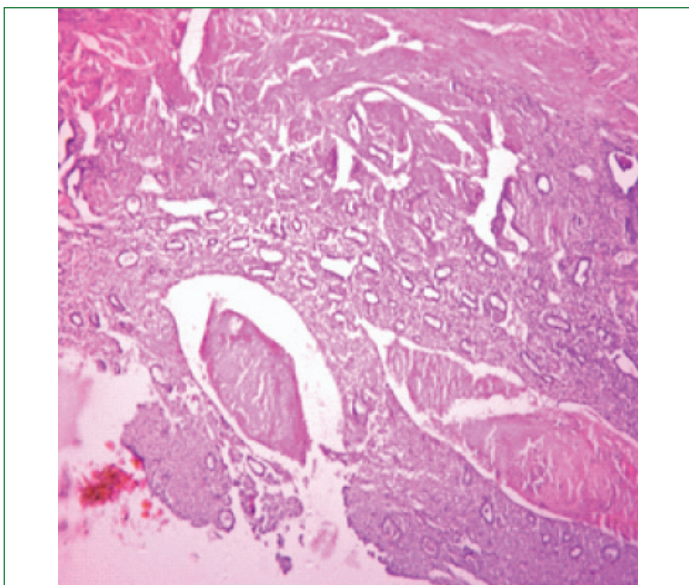
Since there was vaginal bleeding, hysterectomy with bilateral salpingoopherectomy was done. Later uterus was cut opened and there was abundant pus oozing which was collected and sent to cytology examination. On cytologic examination, the smears showed degenerated cells, neutrophils and macrophages.

Background showed necrotic debris. There was no evidence of dysplastic or malignant cells seen. Later the specimen was sent for histopathologic examination. Grossly, uterus and cervix measured 13 x 12 x 9 cm. Cut-section of uterus endomyometrium measured 4.5 cm and exuded 0.5 mL thick yellow (pus) material from a cystic lesions in the myometrium [Table/Fig-2]. Trabeculations were also noted. Cervix cut section was unremarkable. Right and left adnexa were normal grossly.

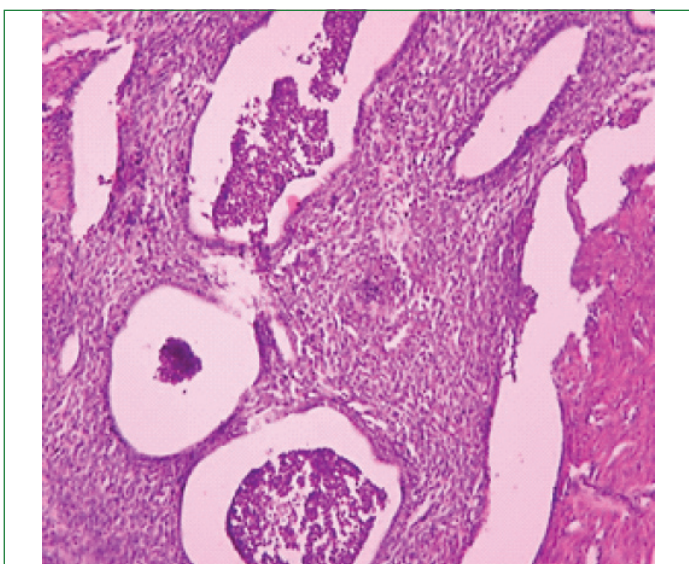


[Table/Fig-2]: Gross image of the cut section of the uterus and cervix showing pus filled cavities (arrow).

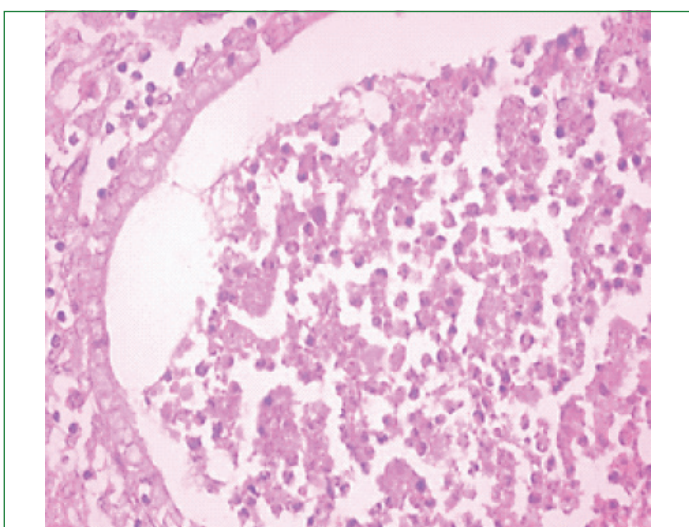
Microscopically endometrium was in late secretory phase with decidualisation of stroma. Focal areas show a few dilated endometrial glands and the lumen of glands showed organised exudate with inflammatory cells infiltrate [Table/Fig-3]. Myometrium showed areas of adenomyosis with transmural dense neutrophilic cell infiltration along with eosinophils and lymphocytes along with the lumen of the glands showing organised exudate with focal areas of necrosis [Table/Fig-4,5]. Cervix showed features of chronic ectocervicitis. Right tube and ovary-normal histology. Left tube and ovary-normal histology. ZN stain for AFB-Negative. Final report of acute endomyometritis with adenomyosis was made. Patient was started on antibiotics and recovered well. After six months follow-up patient was doing well.



[Table/Fig-3]: Microphotograph H&E (X40) showing the myometrium with endometrial glands and stroma. Endometrial glands are dilated and filled with inflammatory cells.



[Table/Fig-4]: Microphotograph H&E (X100) showing the myometrium with the endometrial glands which are dilated and filled with the inflammatory cells.



[Table/Fig-5]: Microphotograph H&E (X400) showing endometrial glands which are dilated and filled with the neutrophils.

DISCUSSION

Adenomyosis is a common gynaecological condition that is characterised by the presence of endometrial glands and stroma extending beneath the endomyometrial interfaces which nests

deep within the myometrium. In spite of its high frequency, aetiology of adenomyosis is still unknown. The current leading theory suggests that the adenomyosis develops as a result of down-growth and invagination of the basalis endometrium into the myometrium [1].

Endomyometritis is the most common fatal pelvic inflammatory disease seen in postpartum women/post-delivery. Although there are a few reports describing abscess formation in endometriotic foci [2-4], no report of abscess formation arising de novo within adenomyosis appears in the literature. This case scenario describes a rare and atypical presentation of adenomyosis with acute endomyometritis reporting for the first time in literature which mimics surgical emergency and malignancies.

Here the authors present a rare case of endomyometritis with adenomyosis which has not been reported in the literature before. This is commonly seen in postpartum or post-delivery women. Where in present case it was 44-year-old woman who was tubectomised 13 years back. Endometritis is the inflammation of the endometrium and the patient complaints of fever, pain abdomen and vomiting and sometimes may present in the state of shock. In present case also patient presented with the similar complaints.

Endomyometritis is the inflammation of endometrium and the myometrium. An extension of the infection into the peritoneal cavity generally results in peritonitis, perhaps intra-abdominal abscess, and generalised sepsis [5]. Histologically, the endometrium and the myometrium show abundant inflammatory infiltrates predominantly neutrophils and eosinophils. The most common cause is due to bacterial colonisation.

The pathophysiology is mainly due to weakened host defense mechanism/compromised immune status, trauma (destruction of the normal barriers) [6]. This holds correct in this case as the patient had uncontrolled diabetes and with high post prandial sugar level. Endomyometritis is usually thought to be an ascending infection, progressing from the lower uterine segment contaminated by the cervico-vaginal flora to the uterine fundus and finally the peritoneal cavity. The site of infection in the untraumatised uterus is generally assumed to be the denuded implantation site, which is usually high in the fundus far from the contaminated lower uterine segment [6].

Adenomyosis is a benign invasion of endometrium into the myometrium. The diagnosis of adenomyosis preoperatively is usually difficult because of non-specific signs and symptoms. Other pelvic pathologies such as leiomyoma, endometrial polyp, endometrial hyperplasia and endometrial cancer can occur synchronously and can cause difficulty in diagnosis [7]. It arises especially if the patient is postmenopausal with established risk factors for endometrial cancer. The respective diagnosis is rendered more difficult in the case of inadequate biopsy specimen for the definitive diagnosis while the radiologic findings favour a primary uterine cancer [6].

Adenomyosis produces a diffusely enlarged uterus and predominantly affects women in the late reproductive age. It has recently been associated with a negative impact on female fertility. Diagnosis is challenging because non-specific symptoms can be present. However, it is asymptomatic in the majority of women. There are very few case reports which have been reported as abscess formation in the adenomyosis [6] and tuberculosis infection in the adenomyosis of uterus secondary to immuno-compromised state. In these case reports also the patient came with the same complaints and had the similar findings as seen in present case and the patient improved after hysterectomy just as the present case [8].

But there are no case reports with the synchronous occurrence of the acute endomyometritis with adenomyosis in a perimenopausal woman. Hence this is the first case report in a perimenopausal woman which is reported for the first time in literature which mimics malignancies.

CONCLUSION(S)

Acute endomyometritis with adenomyosis patients is an acute emergency condition. Such cases have to be evaluated carefully and investigated thoroughly for infections and malignancies. In this condition the antibiotics does not play much role and the main treatment of choice is hysterectomy. Hence, clinical evaluation, arriving to correct diagnosis and timely intervention is necessary.

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PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Pathology, Sri Devaraj Urs Medical College Affiliated to SDUAHER, Kolar, Karnataka, India.
2. Professor and Head, Department of Pathology, Sri Devaraj Urs Medical College Affiliated to SDUAHER, Kolar, Karnataka, India.
3. Professor, Department of Obstetrics and Gynaecology, Sri Devaraj Urs Medical College Affiliated to SDUAHER, Kolar, Karnataka, India.
4. Postgraduate, Department of Pathology, Sri Devaraj Urs Medical College Affiliated to SDUAHER, Kolar, Karnataka, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr Shilpa Manigatta Doddagowda,
Assistant Professor, Department of Pathology, SDUMC, Tamaka, Kolar, Karnataka, India.
E-mail: mdshilpa@gmail.com

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