

Endometrial Amoebiasis: A Rare Cause of Postmenopausal Vaginal Discharge

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Abstract: Genitourinary involvement is one of the rare manifestations of extraintestinal amoebiasis. Vulvovaginal and cervical ulcers have been described but endometrial involvement is rarely reported. One should suspect this entity in all cases of unexplained vaginal discharge. We report a case of endometrial amoebiasis in a postmenopausal woman who presented with pain abdomen and blood mixed vaginal discharge and initially suspected to be a case of endometrial carcinoma.

Keywords: Postmenopausal, Vaginal discharge, Genital amoebiasis, Endometrial amoebiasis, *Entamoeba histolytica*, Extraintestinal amoebiasis

INTRODUCTION

Entamoeba histolytica commonly causes amoebic colitis and liver abscess [1]. Involvement of the female genital tract in the form of vulvovaginal and cervical ulcers has been described but endometrial amoebiasis is extremely uncommon published only in two reports till now [2, 3]. In endemic countries diagnosis of endometrial amoebiasis should be considered in all cases of unexplained postmenopausal vaginal discharge as carcinoma endometrium forms the closest differential diagnosis [3]. Correct diagnosis is important as this disease is readily curable and timely diagnosis can save the patient from long standing morbidity.

CASE REPORT

A 65 year old postmenopausal female presented with complaints of blood mixed vaginal discharge since fifteen days. Her vitals were stable. Abdomen was soft with no organomegaly. Vulva was atrophic with signs of excoriation. On per speculum examination foul smelling blood mixed discharge was seen coming through os. Cervix and vagina were normal. Bimanual examination revealed atrophic, firm, mobile and non tender uterus. Bilateral fornices were free and non tender.

Hemoglobin was 8.4 g/dl, TLC was 12,500 cells/cumm, DLC showed lymphocyte predominance, peripheral smear showed normocytic normochromic anemia, fasting and post prandial blood glucose levels were normal. Ultrasound whole abdomen and pelvis was normal. Pap smear showed no cytologic atypia with predominance of lymphocytes in background. Endometrial aspirate revealed presence of inflammatory cells composed of lymphocytes, eosinophils,

polymorphs and macrophages with numerous trophozoites of *Entamoeba histolytica*.

On H&E staining the trophozoites were visible as 15-25 micron roughly rounded or ovoid ameboid structures with an eccentric nuclei (Fig. 1, 2). The trophozoites were strongly PAS (periodic acid Schiff) positive and exhibited intracytoplasmic phagocytosed and partly digested red blood cells suggestive of amoebic endometritis (Fig. 3). Acid fast bacilli were not seen. Endometrial biopsy showed similar picture. Serology for *Entamoeba histolytica* using ELISA technique was positive for IgG. Stool examination showed negative results for ova and cyst. A course of Metronidazole 800mg thrice daily was given and patient was reviewed after ten days. She improved symptomatically and no discharge was present on per speculum examination.

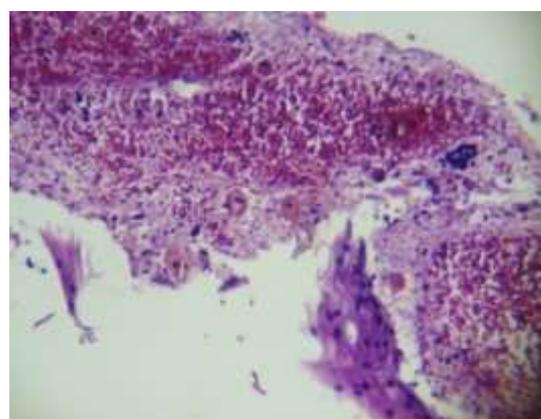


Fig.1: Low power view (100X) of the endometrial biopsy specimen showing inflammatory cells, RBC and amoebic trophozoites

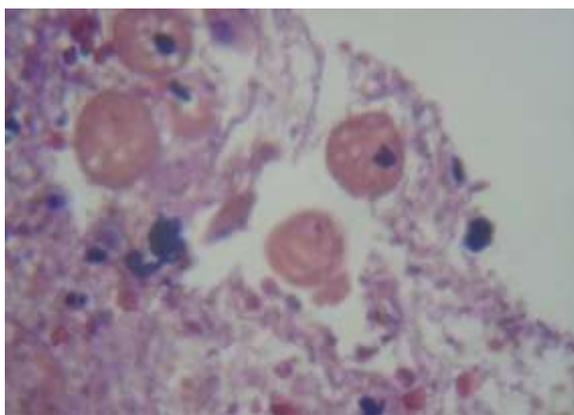


Fig. 2: High power field(400X) showing engulfed red blood cells within the amoebic trophozoites

DISCUSSION

Possible modes of transmission of amoebiasis to genitourinary tract include hematogenous route, contiguous spread through perianal skin, oral or anal sex [4, 5]. Involvement of vulva, vagina and cervix is more commonly seen than endometrium. Cervical and vaginal ulcers that cannot be differentiated from carcinoma have been described [6]. Nopdonrattakoon described a 56-year-old woman with contact bleeding and multiple small ulcerated and friable lesions of the vulva, vagina and cervix, showing *Entamoeba histolytica* on wet smears [7]. Cohen described three cases of cervical amoebiasis all of which occurred in postmenopausal women and had presented with blood mixed vaginal discharge [8]. Mungia et al in their review of 24 cases of gynaecologic amoebiasis had only two patients with endometrial involvement [2]. The clinical presentation of these two cases was postmenopausal vaginal discharge similar to our case.

Nor Hayathi Othman *et al.*, described another 71 year old female who had blood mixed vaginal discharge and was misdiagnosed as carcinoma endometrium. Total Abdominal Hysterectomy and bilateral salpingo-oophorectomy was done, histopathology showed amoebic endometritis [3]. There were no preceding or concurrent intestinal symptoms similar to our patient. The only clue towards the diagnosis in their patient was presence of a liver lesion and a high serological titre for *Entamoeba histolytica*. In our patient though no pathology was demonstrable in the abdomen, there was a positive serology for *E. histolytica*.

The pathogenesis of endometrial amoebiasis is not clear. Majority of patients who get the infection do not develop any clinical symptoms, however in patients

who develop invasive disease there could be formation of intestinal ulcers. The organisms from these ulcers may infect endometrium through hematogenous route [3]. Diagnosis is made by smear of discharge or wet preparation. Biopsy or culture is the gold standard which is characterized by presence of amoebic trophozoites. These trophozoites are 15-20 micron, spherical to ovoid and have single nucleus with central karyosome. These trophozoites can be stained by periodic acid stain, Heidenhain stain or immunoperoxidase stain [1]. Presence of RBC inside trophozoite is suggestive of tissue invasion as seen in our case.

Gynaecological amoebiasis responds to standard Metronidazole therapy [5]. Sexual partner should also be evaluated and treated to prevent relapses. A course of Metronidazole 800 mg three times a day for five days was effective in our patient.

CONCLUSION

Endometrial amoebiasis should be considered as a differential diagnosis in postmenopausal women with complaints of discharge per vaginum. Diagnosis is made by biopsy and demonstration of trophozoites. It is an easily treatable disorder which may be under diagnosed.

REFERENCES

1. Mandell GE, Bennett JE, Dolin R; Principles and Practice of Infectious Diseases. 5th edition, Philadelphia: Churchill Livingstone, 2000.
2. Munguía H, Franco E, Valenzuela P; Diagnosis of genital amoebiasis in women by the standard Papanicolaou technique. Am J Obstet Gynecol., 1966; 94(2): 181-188.
3. Othman NH, Ismail AN; Endometrial amoebiasis. Eur J Obstet Gynecol Reprod Biol., 1993; 52(2):135-137.
4. Antony SJ, Lopez-Po P; Genital amoebiasis: historical perspective of an unusual disease presentation. Urology, 1999; 54(6): 952-955.
5. Mylius RE, Ten Seldam RE; Venereal infection by *Entamoeba histolytica* in a New Guinea native couple. Trop Geogr Med., 1962; 14: 20-26.
6. Gogoi MP; Amoebiasis of the female genital tract. Am J Obstet Gynecol., 1969; 105(8): 1281-1282.
7. Nopdonrattakoon L; Amoebiasis of the female genital tract: a case report. J Obstet Gynaecol Res., 1996; 22(3): 235-238.
8. Cohen C; Three cases of amoebiasis of the cervix uteri. J Obstet Gynaecol Br Commonw., 1973; 80(5): 476-479.