

# AMOEBIASIS OF CERVIX AND VAGINA

by

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*Entamoeba histolytica* infestation, which is commonly found in tropical countries, usually manifests itself as a colonic infection. However, in rare instances amoebic infection of the female genital tract, especially of the cervix and vagina, is encountered. Bhōumik (1951) reported one case of amoebic cervicitis and vaginitis, and reviewed the literature on this subject. According to this author, only 20 cases of amoebic infection of the female genital organs were reported upto 1951. The cervix was involved in 70 per cent of these cases and in 18 cases there were lesions in the vagina. Moghraby (1960) encountered amoebiasis of the cervix and vagina in a Sudanese woman. Beside the cases mentioned above there is hardly any reference to this condition in the literature. It was, therefore, considered worth while to report the following three cases of amoebic infection of the genital organs

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## Case Reports

**Case 1.** An unmarried girl of 17 years was referred for the complaint of leucorrhoea lasting for 25 days. She gave a normal menstrual history, the last period having occurred 15 days previously.

On examination, plenty of blood-stained, purulent, foul-smelling discharge was seen coming out of the vagina. On bimanual examination with one finger the cervix felt irregular, but as there was marked tenderness, it was difficult to carry out further examination either by finger or by speculum.

Direct microscopic examination of the vaginal discharge revealed actively motile vegetative forms of *Entamoeba histolytica* containing ingested red blood cells (Fig. 1). Beside these, a number of pus cells and red blood cells were also seen in the wet smear. Smears prepared from this discharge and stained by Papanicolaou's method also revealed *Entamoeba histolytica* besides cornified and intermediate epithelial cells.

The patient was treated with Entobex tablets (6 tablets daily for 10 days) and emetine hydrochloride injections ( $\frac{1}{4}$  gr. daily for 12 days).

On re-examination following treatment she was found to have a slight amount of white discharge but not of foul smelling, necrotic type previously seen. The vaginal aspiration showed the presence of large squames with a fairly clean background. *Entamoebae histolytica* were not seen. On bimanual examination the cervix felt smooth and on speculum inspection no ulcers were seen.

**Case 2.** A 54-year-old widow, who had reached menopause two years previously,



complained of blood-stained, yellow discharge for three months. She was examined by a general practitioner who found ulceration of the cervix and vagina and referred her to the Tata Memorial Hospital for suspected carcinoma.

On examination an ulcerative lesion of the posterior vaginal wall and of the anterior lip of the cervix was seen.

A biopsy taken from the vaginal ulcer revealed submucosal inflammatory reaction and the presence of vegetative forms of *Entamoeba histolytica* with ingested red blood cells. There was no evidence of malignancy. Actively motile vegetative forms of *Entamoeba histolytica* were also seen in the wet film prepared from the vaginal discharge (Fig. 2). Smears from the cervix and vagina stained by papanicolaous method also revealed these parasites and showed the presence of atypical nuclei and cytolysis with plenty of leucocytes, histiocytes and red blood cells.

On questioning the patient, she gave a history of fever and of passing blood in the stools about five years previously.

She was treated for amoebiasis by the doctor who had referred her to the hospital and on enquiry later, the doctor stated that the patient had responded very well to amoebicides.

**Case 3.** A 60-year-old woman was referred to the Tata Memorial Hospital for vaginal bleeding. She had had this complaint for almost two months.

On examination a large, ulcerated lesion of the cervix was seen with involvement of the parametria. A rectovaginal fistula, admitting two fingers, was also noted. There was plenty of foul smelling, brownish grey discharge.

A biopsy from the lesion of the cervix revealed degenerated tissue scattered in which a number of *Entamoeba histolytica* with ingested red blood cells were seen (Fig. 3). There was no evidence of malignancy. Biopsy was repeated twice from different sites of the lesion. These biopsies also revealed necrotic tissue as seen in the previous biopsy and did not show any evidence of malignancy. Actively motile vegetative forms of *Entamoeba histolytica* were seen in the wet film of the

vaginal discharge. Examination of a sample of s.cool did not reveal the parasites. Routine examination of the urine revealed normal findings. Examination of blood showed the presence of anaemia.

On questioning, the patient gave a history of dysentery off and on. Clinically there was no doubt about the malignant nature of the lesion although it was not possible to prove this histologically. A diagnosis of carcinoma of the cervix with secondary amoebic infection was arrived at.

The patient was treated by cobalt beam therapy and received 4,200 radons in a period of 38 days. Clinical examination after this showed excellent regression of the cervical lesion. The foul smelling discharge had completely disappeared. She was again examined two months later and revealed no abnormality except for narrowing of the rectum caused by stricture formation. Prednisone was prescribed for this condition.

### Discussion

The reported incidence of amoebic infestation of the cervix and vagina appears to be quite low, although amoebic dysentery is common, especially in tropical countries. However, it is quite likely that some of these cases are not diagnosed since direct microscopic examination of the vaginal discharge is not usually carried out. This investigation, as seen especially in Case 1 of this series, is very useful in diagnosing amoebic vaginitis. Vaginal discharge may be the only clinical evidence of amoebiasis and it is essential to diagnose it correctly as this condition responds well to specific treatment.

In amoebiasis of the female genital tract, it is difficult to find out the exact source of infection. This may be either endogenous or exogenous. Two of the cases reported above gave a history of dysentery. Bhoumik



(1951) noted that in about 80 per cent of the reported cases there was a history of chronic dysentery. The possibility of infection of the vagina by cleansing the perineum from behind forwards should be kept in mind. There is also a possibility of amoebic invasion of the vagina through a fistulous tract connecting the vagina with the rectum as seen in Case 3 of the present series. Rarely, there may be transmission of this parasite through coitus. Recently, Talwalkar (1962) has noted one case of amoebiasis of the penis. Sayed and Amin (1962) demonstrated *Entamoeba histolytica* in the urine of a 14-year-old boy who complained of burning micturition and purulent urethral discharge. He gave a history of sodomy.

Amoebic infection of the genital tract has no apparent relation to age or parity. In this series, one case occurred in a 17-year-old unmarried girl, while the remaining two instances were those of menopausal parous women. Bhoumik (1951) has also noted this in his review of the literature.

Lee (1932) noted two cases in which amoebic invasion occurred, superimposed on carcinoma of the cervix, and *Entamoeba histolytica* were seen on histological examination of the lesion. Case 3 of the present

series appears to be similar to these two cases of Lee.

#### *Summary*

Three cases of amoebiasis of the cervix and vagina are reported. This is a rare infestation, and if diagnosed responds promptly to specific treatment. Possibilities of the source of infection are discussed.

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Fig. 1

Wet vaginal aspiration from Case 1, in normal saline under phase contrast microscope. Note *Entamoeba histolytica* with ingested red blood cells. (x 800)

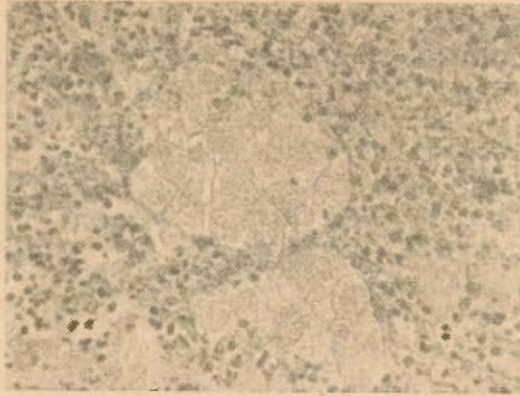


Fig. 2

Photomicrograph of wet film prepared from vaginal discharge (Case 2). Vegetative form of *Entamoeba histolytica* showing pseudopodium. (x 360)



Fig. 3

Photomicrograph showing several *Entamoeba histolytica* and degenerated tissue. Biopsy of cervical lesion from Case 3. Stained by hæmatoxylin and eosin. (x 480)