AMEBIC VAGINAL ABSCESS: A CASE REPORT FROM INDONESIA

R Heru Prasetyo

Department of Parasitology, Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia

Abstract. Genital amebiasis is rare. The paper presents the case of an amebic vaginal abscess. A 39-year-old Indonesian woman presented to the hospital with a 5-day history of fever and vaginal pain in January 2019. On physical examination, she was noted to have vaginal abscess. Incission and drainage of the absccess revealed a malorderous, reddish-brown purulent discharge. A Gram stain and culture of purulent material was negative for the presence of bacteria but Giemsa stain revealed trophozoite consistent with *Entamoeba histolytica*. The patient was treated with oral metronidazole for one day in the hospital and then oral and intra vaginal metronidazole for two days as an out-patient. Final follow-up at 5 days post-drainage revealed improved condition and she get recovered. In patients with vaginal abscess with a negative workup for bacteria and at risk for ameba infection, an amebic vaginal abscess should be in defferential diagnosis.

Keywords: intestinal amebiasis, vaginal metastasis, amebic vaginal abscess

INTRODUCTION

Intestinal amebiasis is caused by the protozoan parasite *Entamoeba histolytica* (Neva and Brown, 1994; Markell *et al*, 1999). The majority of intestinal amebiasis case are asymtomatic. In severe or invasive intestinal amebiasis, the trophozoites may invade the intestinal wall, causing ulcers (Neva and Brown, 1994) and mucus secretion in the intestine with resultant diarrhea, with occasional blood and mucus. The ameba may gain access to the circulation via the ulcers (hematogenous spread) or directly invade other organs to form abscesses (WHO, 2003). The most common form of extra intestinal amebiasis is liver amebic abscess. A genital amebic abscess is rare (Goldsmith, 1999; Weissman and Salata, 2000).

Correspondence: Dr R Heru Prasetyo, Department of Parasitology, Faculty of Medicine, Universitas Airlangga, Jl Prof Dr Mustopo No. 47, Surabaya, Indonesia 60131.
E-mail : rheru_prasetyo@yahoo.co.id

CASE REPORT

A 39-year old female from Java, Indonesia living in a slum area with poor sanitation in Surabaya, Indonesia, presented to the hospital with a 5-day history of vaginal pain and fever interfering with her ability to walk. Her past medical history has never experienced anything like this. Her occupation was a scavenger picking up used goods in landfill. Her review of systems of gastrointestinal tract was often dysentery. On phisycal examination her blood pressure was 110/70 mmHg, and her temperature was 38^{o}C. On abdominal exam she has cramp in her right lower quadrant. A pelvic examination reveals a tender abscess 3 cm in diameter. A laboratory examination revealed an

elevated white blood cell (WBC) count of 13,500/μl with 65% neutrophils, and 7% eosinophils. She was admitted to the hospital and an incision and drainage of the abscess was performed revealing a malodorous reddish-brown purulent discharge. Gram stain of the discharge showed elevated white blood cells, but negative for bacteria. A bacterial culture of the discharge was negative. A Giemsa stain of the discharge revealed trophozoites consistent with *Entamoeba histolytica.* The patient was treated in-patient with oral metronidazole, 500 mg 2 times daily for one day, followed by out-patient with oral metronidazole, 500 mg 2 times daily for two days and at last follow-up with intra vaginal Metronidazole for two days. At follow-up 5 days after drainage her condition was improved and she get recovered.

DISCUSSION

Intestinal amebiasis is usually contracted by ingesting food or water contaminated with feces containing *E.histolytica* cysts, but the cysts can also be ingested indirectly through contact with dirty hands or objects or by anal-oral contact (Neva and Brown, 1994). Amebiasis occurs more commonly in areas with poor hygiene and in the tropics and subtropics (Markell *et al*, 1999). The *E.histolytica* trophozoites can cause ulcers in the intestine resulting in amebic dysentery (Neva and Brown, 1994). Chronic forms of intestinal amebiasis may lead to hematogenously or direct spread to other extra-intestinal organs (Goldsmith, 1999; Weissman and Salata, 2000; WHO, 2003). Abscesses are usually caused by bacteria. Genital abscesses are usually caused by sexual transmitted diseases (Fotedar *et al*, 2007). The case reported here was initially suspected to be caused by gonococci, but cultures were negative for bacteria and in patients with risk factors, amebiasis should be considered in defferential diagnosis.

Usually *E.histolytica* trophozoites are indistinguisable from non-pathogenic *E.dispar* trophozoites on light microscopy (Khainar and Parija, 2007; Fotedar *et al*, 2007). However, if observed ameba have vacuoles containing digested erythrocytes, indicating hemophagous activity, *E.histolytica* is suspected (WHO, 2003). Detection of trophozoites containing digested erythrocytes is diagnostic for amebiasis (Garcia and Ash,1987; WHO, 2003). In this case, we suspected amebiasis due to the color and odor of the pus. After staining with Giemsa invasive *E.histolytica* trophozoites were detected. Entamoebae have transparent ectoplasma, the nucleus is not visible, and the vacuoles in endoplasma contain digested erytrocytes (Garcia and Ash, 1987; WHO, 2003), these were observed with Giemsa staining in our case. This case is the first reported case of amebic vaginal abscess in 15 years after a case of amebic scrotal abscess reported in 2015 (Prasetyo, 2015). This case shows if no bacterial cause of a vaginal abscess is found, an amebic abscess should be considered in a patient with risk factors as the finding of malodorous, reddish-brown purulent exudate.

ACKNOWLEDGEMENTS

The author is grateful to the patient for permission to publish this case.

REFERENCES

Fotedar R, Stark D, Beebe N, Marriott D, Ellis J, Harkness J. Laboratory diagnostic techniques for *Entamoeba* species. *Clin Microbiol Rev* 2007; 20: 511.

Garcia LS, Ash LR. Diagnostic parasitology: clinical laboratory manual. 2nd ed. St Louis:

CV Mosby, 1978: 86-8.

Goldsmith RS. Infectious diseases: protozoal and helminthic. In: Tierney LM, McPhee SJ, Papadakis MA, eds. Current medical diagnosis & treatment. 38th ed. Stamford: Appleton & Lange, 1999: 1356-61.

Khainar K, Parija SC. A novel nested multiplex polymerase chain reaction (PCR) assay for differential detection of *Entamoeba histolytica*, *E.moshkovskii* and *E.dispar* DNA in stool samples. *BioMed Central Microbiol* 2007; 7: 47.

Markell EK, John DT, Krotoski WA. Markell and Voge's medical parasitology. 8th ed. Philadelphia: WB Saunders, 1999: 24-48.

Neva FA, Brown HW. Basic clinical parasitology. 6th ed. Norwalk: Appleton & Lange, 1994: 17-37.

Prasetyo RH. Scrotal abscess, a rare case of extra intestinal amoebiasis. *Trop Biomed* 2015; 32: 494-6.

Weissman S, Salata R. Amebiasis. In: Behrman RE, Kliegman RM, Jenson HB, eds. Nelson textbook of pediatrics. 16th ed. Philadelphia: WB Saunders, 2000: 1035-6.

World Health Organization (WHO). Manual of basic techniques for a health laboratory. 2nd ed. Geneva: WHO, 2003: 113.