

Gastrointestinal and Liver Pathology at Rush

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Case of the Month Answer – December 2007

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Diagnosis: Perianal amebiasis cutis (*Entamoeba histolytica*)

Biopsies from the perianal ulcer revealed the presence of invasive *Entamoeba histolytica*. Concurrent colonoscopy and rectal biopsies also showed focal proctitis with invasive amebic parasites. No pathologic evidence of Crohn's disease or ulcerative colitis was seen. Tests for HIV, *Neisseria gonorrhoea*, *Chlamydia trachomatis* (including lymphogranuloma venereum serovars), *Treponema pallidum*, and *Herpes simplex* were negative. The patient's ulcer and symptoms rapidly resolved with a two-week course of metronidazole. Because the patient was lost to follow-up, he did not receive paromomycin at the end of treatment.

Cutaneous amebiasis is an uncommon manifestation of *E. histolytica* infection, even in areas where it is endemic. The infectious trophozoites that normally invade colonic tissue can infect the perineal skin by two routes: shedding in stool (particularly in diaper-wearing children) or direct extension from involved gastrointestinal tract. Perineal skin involvement may extend to the penis, scrotum, vulva, clitoris, and vagina. Other reported cutaneous locations include the skin around prior colostomy, laparotomy, or drained amebic liver abscess sites. In rare instances, primary cutaneous amebiasis can occur by direct trophozoite inoculation of the skin through scratching or through sexual intercourse, without contiguous extension of gastrointestinal disease.

The typical cutaneous amebiasis lesion is a well-demarcated ulcer with purulent exudate, raised borders, and an erythematous halo. The ulcers are generally painful and bleed easily. Its appearance, particularly in the perianal region, can mimic inflammatory bowel disease, malignancy, or ulcerative infections such as herpes simplex, making diagnosis challenging. Diagnosis can be made by direct biopsy of the skin lesion to visualize characteristic amebic trophozoites, which are 10-60 μm in diameter, spherical or oval shaped with a single nucleus, and characterized by phagocytized red blood cells within its cytoplasm. Rapid resolution of cutaneous lesions occurs with metronidazole therapy, which ideally should be followed by a course of a luminal amebicide such as paromomycin.

Although *E. histolytica* infection is rare in the developed world, homosexual and oral-anal intercourse are two risk factors for acquisition. Our patient developed perianal cutaneous amebiasis as an extension from colonic amebiasis, but whether he acquired the infection in the United States or abroad is uncertain.

References

Lin M, Giusto D, Jakate S and Proia L. A man with a chronic perianal ulcer. Clin Infect Dis 2008.