
**Balantidium coli Infestation as a Cause of Acute Appendicitis**

**Colleagues—** *Balantidium coli* is a large, ciliated protozoa that normally inhabits the intestines of insects, fish, amphibians, and mammals. In humans, infestation is probably acquired by ingestion of cysts in contaminated food or water. Human infection is rare and usually asymptomatic. Occasionally the parasite will produce disease in the human host with symptoms attributable to invasion and inflammation of the distal large intestine. Primary involvement of the appendix with *B. coli* is distinctly rare and until now has not been recorded in the literature. This is the report of such a case.

A 16-year-old hispanic boy presented with complaints of right-lower-quadrant abdominal pain for the preceding 18 h. Temperature was 38.5°C, and a complete blood count revealed 18,500 white cells/mm³ with 89% neutrophils, 6% lymphocytes, 3% monocytes, and 2% eosinophils. He was taken to surgery with a presumptive diagnosis of acute appendicitis, and a gangrenous appendix was removed.

Histopathologic examination of the appendix revealed severe inflammation, ulceration, and necrosis of the appendix wall. The predominant inflammatory cell type was polymorphonuclear with occasional eosinophils. *B. coli* trophozoites were found throughout the wall of the appendix and adhering to the sloughed mucosal surface. The trophozoites were 40–60 μm in diameter and showed the characteristic sausage-shaped macronucleus.

Parasitic infection of the appendix is a well recognized cause of clinical acute appendicitis. In a large series of appendectomies reviewed from India, an area with a high prevalence of occult parasitic infection, 2.5% of all removed appendices were shown to contain unsuspected parasites [1]. *Enteroctes vermicularis* was most frequent, present in 1.4% of the removed appendices. *Entamoeba histolytica*, *Ascaris*, *Trichuris*, and *Taenia* organisms were also identified, each in <0.5% of examined appendices.

A series of 120 cases of appendicitis from Egypt were studied and showed parasites in 10% [2]. Again, *E. vermicularis* was the most common, present in 3.3% of all cases of acute appendicitis examined microscopically. Other parasites identified, in decreasing order of frequency, included *Ascaris lumbricoides*, *Schistosoma mansoni*, *Ento. histolytica*, and *Trichurus trichuria*.

A selective examination of appendices from children <14 years old revealed enteral bowel infestation in 12.5% [3]. This reflects the higher prevalence of infection with this parasite in the pediatric age group. There are also sporadic reports of other parasitic infestations manifesting as acute appendicitis, such as *Strongyloides stercoralis* [4, 5] and cryptosporidial infection [6].

*B. coli* is an exceedingly rare cause of acute appendicitis. Appendiceal involvement secondary to disseminated balantidial infection has been described once previously in a fatal case [7] but has not been previously described as a primary infestation. *B. coli* and other parasites are important to distinguish in appendectomy specimens because the care of the postsurgical patient may be altered significantly in an effort to eradicate the pathogen.

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**References**