

Acute appendicitis secondary to *Enterobius vermicularis*

Case report

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Background

- Acute appendicitis due to *Enterobius vermicularis* is an unexpected finding after appendectomy.
- In the late 19th century the incidence of appendicular infestation was around 19%.
- Worldwide the incidence varied from 0.2 to 41.8%.
- Incidence has decreased due to improved sanitary conditions.
- Parasitic diseases are rare in developed countries.
- The most common explanation for the pathogenesis is due to obstruction of the appendicular lumen by the parasite.

Objective

The aim of this poster is to present a rare case of acute appendicitis caused by *Enterobius vermicularis*.

Methods

- CARE guidelines were followed.
- IRB approval was obtained.
- 10 year old female who presented to the ER for concerns of abdominal pain associated with diarrhea and nausea.
- Patient was found with signs of acute appendicitis on physical exam and ultrasound showed non compressibility of the appendix.
- Patient was scheduled for laparoscopic appendectomy.

Results

- Laparoscopic appendectomy was completed without complications.
- The patient was discharged from the hospital in postoperative day 2.
- Patient was found to have on pathology report acute appendicitis associated with *Enterobius vermicularis*.
- The patient was contacted and she received parasitic treatment with 2 doses of pyrantel pamoate.
- The patient was seen in the clinic 1 month postoperatively with complete resolution of symptoms.

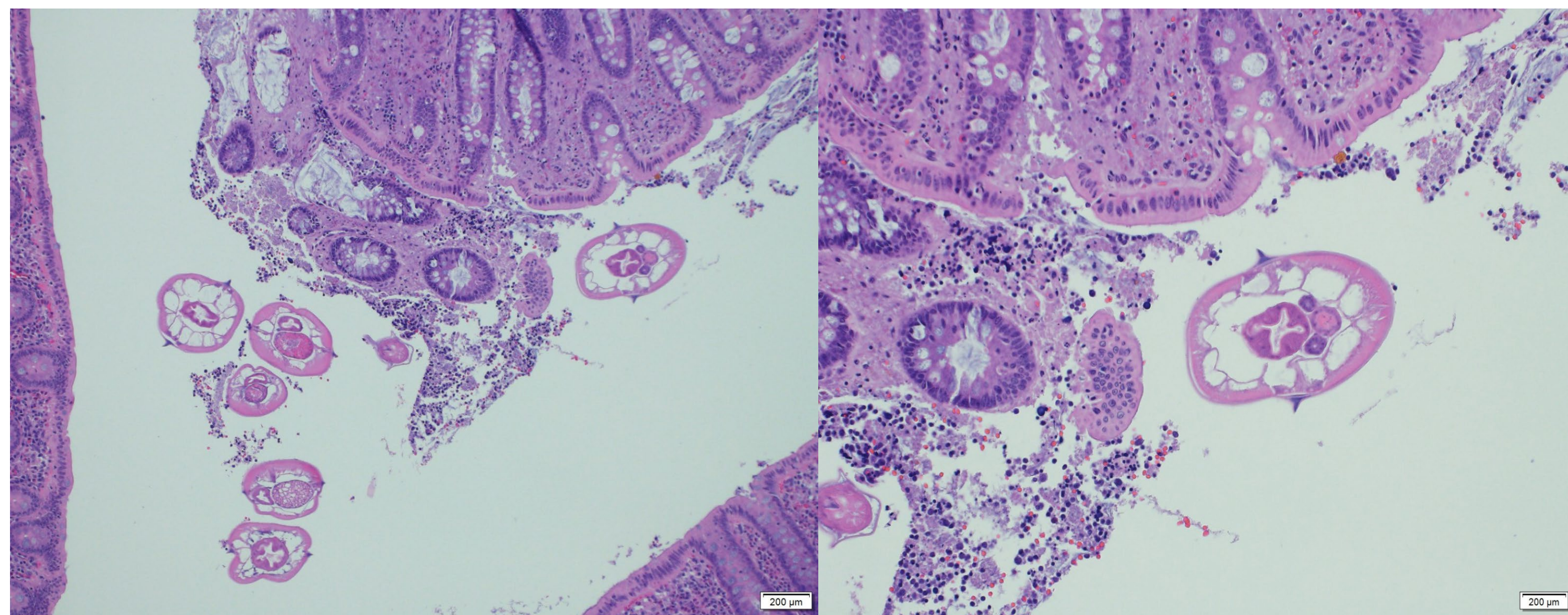


Fig.1 Histopathological examination showing the *E. vermicularis* within the lumen of appendix

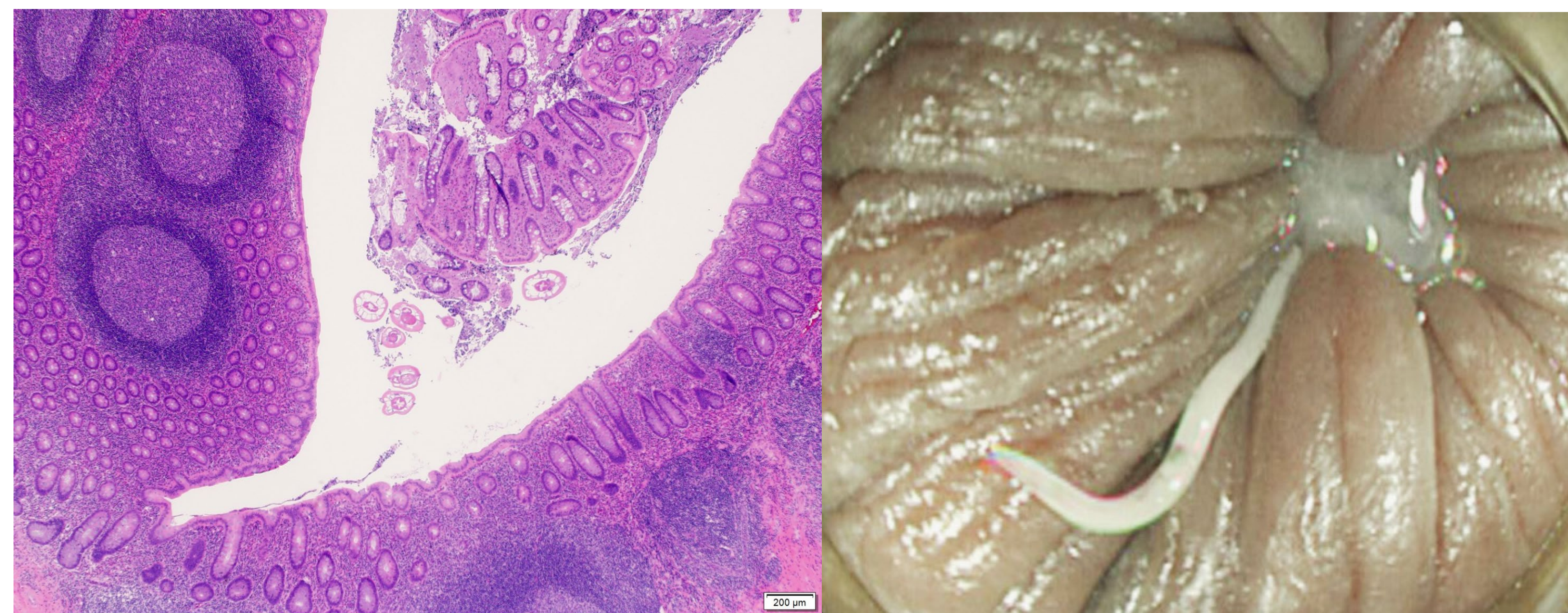


Fig. 2. Lymphoid cells and *E. vermicularis* within the appendix

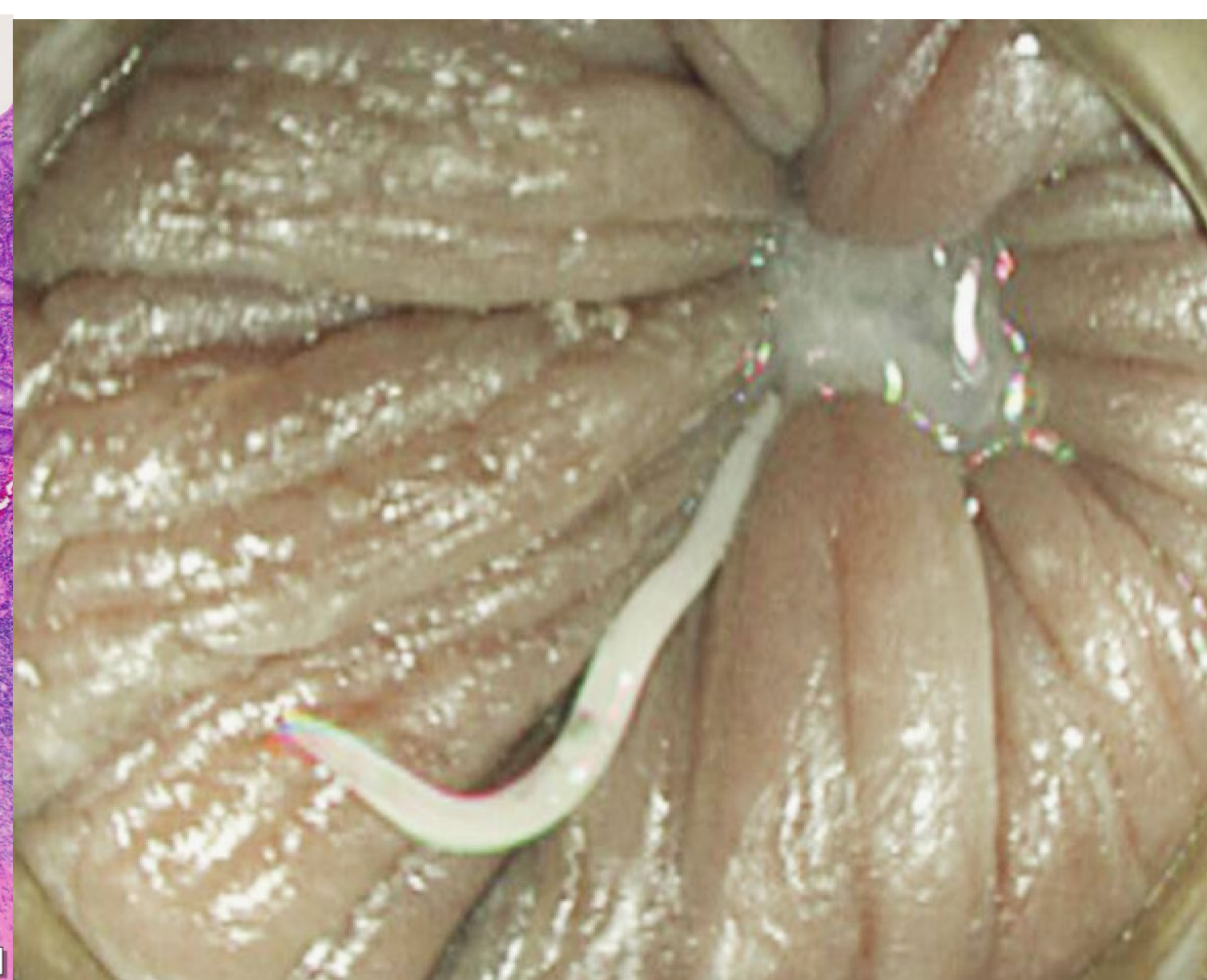


Fig. 3. Example of 1cm pinworm within the anus of a reported patient



Fig. 4. Adult female *E. vermicularis* surrounded by abundant eggs

Discussion

- We reported a case of acute appendicitis caused by *Enterobius vermicularis* that presented with clinical, surgical and histopathological findings.
- Souza et al reported grossly normal appendices at operation on 27% of the patients and *E. vermicularis* was considered to be the cause of that inflammation in 68.4%.
- Eosinophilia and normal neutrophil count remained significant to predict the presence of *E. vermicularis* in pediatric patients who present with clinically suspected acute appendicitis, eosinophilia is most predictive with an odds ratio of 2.17.
- Laparoscopic appendectomy is the definitive treatment for appendicitis, followed by either mebendazole, pyrantel pamoate or albendazole for complete pinworm eradication.
- Prophylaxis is recommended for household contacts.

Conclusion

Acute appendicitis secondary to *Enterobius vermicularis* is an uncommon condition. A thorough clinical evaluation and review of laboratory findings is mandated in order to provide an integrated treatment.

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