

## Cryptosporidiosis; Is it „reserved“ only for the immunocompromised?

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### Keywords:

bloody mucous stools, cryptosporidiosis, infection, nitazoxanide

### Background:

*Cryptosporidium parvum* is an intracellular parasite that infects gastrointestinal epithelium, especially in immunocompromised individuals, causing severe, life-threatening diarrhea. It is usually transmitted through the consumption of contaminated water and food. Rarely, infection can occur in immunocompetent patients who can either be asymptomatic or present with gastrointestinal symptoms (diarrhea, abdominal pain, weight loss).

### Case presentation:

A three-year-old female presented to the Emergency department (ED) with diffuse abdominal pain, constant vomiting, and no bowel movement over the past three days. Laboratory tests revealed slightly elevated inflammatory markers (leukocytes  $15.2 \times 10^9/L$ ; neutrophils 74%, CRP 3.7 mg/L). She was diagnosed with acute gastroenteritis and, after receiving parenteral rehydration, discharged. However, the symptoms persisted and she returned to the ED after two days. Except for persistent leukocytosis ( $19.6 \times 10^9/L$ ), laboratory tests, including stool samples, collected after glycerin suppository, were normal; negative coproculture, inflammatory cells, and occult bleeding. Clinical examination revealed significant meteorism without signs of acute abdomen which was confirmed with abdominal ultrasound and X-ray. Due to persistent symptoms, the patient was admitted to the ward where she developed stools containing blood and mucus. Extensive imaging including abdominal magnetic resonance imaging (MRI) revealed diffuse and nonspecific colitis without other pathology, while repeated routine coproculture was negative. Ultimately, a colonoscopy with pathohistological sample collection was performed. While macroscopical findings indicated non-specific colitis, the microscopic findings were far more specific; indicative of cryptosporidium infection. The diagnosis was confirmed with chromatography and rapid test respectively. A 3-day course of nitazoxanide therapy was followed with complete regression of symptoms after which she was discharged.

### Conclusion:

Even though cryptosporidium infection is extremely rare in developed countries, especially in immunocompetent patients, it should be kept in mind in cases of refractory gastrointestinal symptoms with negative routine coproculture, considering that if not recognized on time, it can cause severe diarrhea with potentially fatal outcome.