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Short Communication

A case report on *Isospora* infection in a puppy and its successful management

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Abstract

A 3-month-old female non-descript puppy weighing 6.5 kg was presented with inappetence, diarrhoea and occasional vomiting for four days. Clinical examination revealed dehydration, dullness, and mild pallor of the mucous membranes, and faecal smear showed numerous oocysts of *Isospora* spp. The puppy was treated with toltrazuril (10 mg/kg PO for 3 consecutive days) along with supportive therapy. The animal showed marked clinical improvement within five days and recovered uneventfully.

Keywords: Anticoccidial therapy, Coccidiosis, *Isospora* spp., Oocysts, Pup

Highlights

- Early diagnosis of canine coccidiosis was confirmed by faecal microscopy revealing *Isospora* spp. oocysts.
- Toltrazuril therapy (10 mg/kg PO for 3 days) proved highly effective in rapid clinical recovery.
- Supportive care played a crucial role in improving hydration, appetite, and overall health of the puppy.

A three-month-old female non-descript puppy weighing 6.5 kg was presented with a history of anorexia, depression, and passage of loose faeces for the past three to four days. The owner reported irregular vaccination and deworming schedules. The puppy also showed reduced activity and occasional vomiting.

Upon clinical examination, the conjunctival mucous membranes appeared pale and slightly dry. Capillary refill time was mildly prolonged, and the hair coat appeared rough and dull. Vital parameters such as temperature, pulse, and respiration were within normal limits. Palpable lymph nodes were normal.

A fresh faecal sample was collected and examined microscopically. Direct smear and flotation examination revealed numerous oocysts characteristic of *Isospora* species, indicating intestinal coccidial infection (Fig. 1). Morphometric assessment of the oocysts revealed dimensions of 35 × 28 µm.

Coproparasitological examination confirmed a heavy infection with *Isospora* species. Quantitative faecal examination showed an oocyst count of 4,000 oocysts per gram (OPG) of faeces. The puppy was treated with toltrazuril at a dose of 10 mg/kg body weight orally (PO) once daily for 3 consecutive days. Supportive therapy, including fluid administration

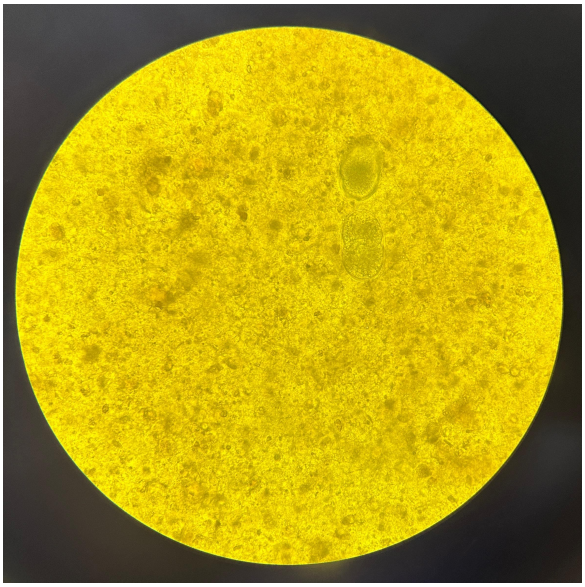


Fig. 1. Fecal sample showed *Isospora* spp. oocyst

(Ringer's Lactate 10 mL per kg body weight IV) and vitamin supplements orally, was provided, and Vitamin B-complex injections were administered at 0.5 mL intramuscularly (IM) to improve appetite and general health. Additionally, oral rehydration therapy and

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nutritional support were given to correct dehydration and weakness associated with coccidial infection.

After five days of treatment, the puppy became active and alert, with conjunctival mucous membranes appearing pink and moist. The faeces became well-formed and yellowish in colour. Follow-up microscopic examination of the faecal sample revealed the absence of coccidian oocysts, indicating successful treatment. These findings are in agreement with earlier reports by Dubey (2019), and Yamuna Nandan et al. (2025) reported a severe (++++) *Cystoisospora* spp. infection in a German Shepherd puppy with dark, tarry diarrhoea, which recovered successfully after four days of treatment with sulfadiazine–trimethoprim. Further supported by recent findings of Barrera et al. (2024), who demonstrated the high efficacy of toltrazuril in eliminating *Cystoisospora* infections in dogs, resulting in rapid clinical recovery and cessation of oocyst shedding.

A 3-month-old female non-descript puppy weighing 6.5 kg was presented with anorexia, diarrhea, and mild dehydration. Clinical examination revealed dullness, pale mucous membranes and a rough hair coat. Faecal microscopic examination revealed numerous oocysts of *Isospora* spp. Prompt treatment with anticoccidial medication along with supportive therapy resulted in rapid clinical improvement and complete recovery of the puppy.

Conflict of interest: Authors have no conflict of interest in this study.

Author's contribution: MV: Involved in case diagnosis, treatment and preparation and final formatting of the manuscript; AGS: Involved in sample collection, treatment and case follow-up; TVT: Assisted in Laboratory Diagnosis of the case; SS, SK, PAE: Assisted in Treatment and follow-up of the case; EV, SS: Overall monitoring of case diagnosis, treatment, manuscript review and formatting. All authors have approved the final submitted version. All authors approved to submit the article.

Data availability statement: Data set generated during research need to be available from the corresponding author upon reasonable request.

Ethical approval: Ethical approval was not required for this case report. The animal was treated as per standard veterinary practice.

Use of artificial intelligence tools: During the preparation of this work, the author(s) used [ChatGPT (OpenAI)] to [language editing and improving the clarity of the manuscript]. After using this tool/service, the author(s) reviewed and edited the content as needed and take full responsibility for the content of the publication

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