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Coccidiosis in a flock of barb pigeon (*Columbia livia domestica*) and its therapeutic management: Case report

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Abstract

Coccidiosis in a pigeon is a highly fatal, common protozoal disease caused by *Eimeria* spp., leading to enteritis, diarrhoea, weight loss and reduced performance. This report describes a clinical case of Coccidiosis in a Barb pigeon (*Columba livia domestica*), its diagnosis through faecal droppings examination, and successful therapeutic management using Amprolium soluble powder and supportive therapy.

Keywords: Coccidiosis, barb pigeon (*Columba livia domestica*), *Eimeria* spp., protozoal disease

Introduction

The Barb pigeon, a fancy breed of domestic pigeon (*Columba livia domestica*), may be particularly susceptible under intensive management systems. Avian coccidiosis is a significantly fatal disease targeting poultry and poses a high economic risk in the poultry industry (Qadir and Nisa, 2015) [8]. Coccidiosis is a protozoal disease of birds affecting the intestinal tract, primarily caused by *Eimeria* spp. (Ali *et al.*, 2015) [1]. About nine species of the various *Eimeria* genus are seen in pigeons, among them, common spp. are *Eimeria columbae*, *Eimeria columbarum* and *Eimeria labbeana* (most pathogenic and frequently observed), which parasitize the intestinal epithelium of birds (Ramesh *et al.*, 2018) [5]. The disease is common in young pigeons and birds kept under overcrowded or unhygienic conditions. Affected animals will exhibit characteristic clinical signs such as lethargy, watery or mucoid diarrhoea, inappetence, drowsing, paralysis and ultimately resulting in poor performance (Ramesh *et al.*, 2018) [6].

Materials and Methods

A 2-year-old male Barb pigeon (*Columbia livia domestica*) was brought to ICAR-Indian Veterinary Research Institute, Referral Veterinary Polyclinic (RVP) with the complaint of anorexia, lethargy and voiding greenish diarrhoea in the last 4 days. Clinical examination revealed solid vent region, greenish watery diarrhoea, reduced feed intake, ruffled feathers and lethargy. Many birds died from their flock as reported by the owner. Bird droppings were taken for endo-parasitic examination. Direct smear and floatation technique revealed numerous non-sporulating oocysts of *Eimeria* sp. Oocysts were smooth wall oval in shape which is characteristic of *Eimeria* sp. (Balicka-Ramisz A and Pilarczyk B, 2014) [2].



Fig 1: 2-year-old male Barb pigeon presented with greenish watery diarrhoea

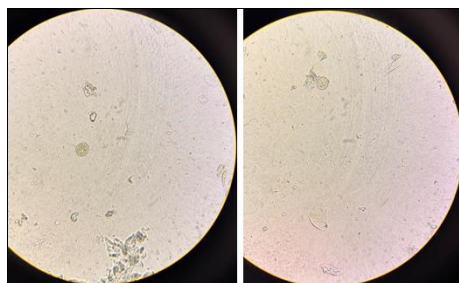


Fig 2: Microscopic image Pigeon droppings showing oocyst of *Eimeria* spp. (40 X)

Treatment

Based on these findings, the present case was diagnosed as Coccidiosis in pigeon. The bird flock was treated with Powder. Amprolium @ 5 g/L in water for 5 days along with probiotic and multivitamin supplementation like Syp. Vimerol @ 1 ml P.O BID for 20 days. After 3 days, the bird showed improvement in the feed intake and successful recovery was noticed after 7 days of therapeutic intervention.



Fig 3: After recovery

Results and Discussion

Coccidiosis is often subclinical in adult pigeons but may become severe under stress or poor sanitation. Damage occurs due to destruction of intestinal epithelial cells during schizogony and gametogony stages, leading to malabsorption and diarrhoea. Early diagnosis and prompt treatment are essential to prevent mortality and flock outbreaks.

The incidence of coccidiosis in pigeon was 86.05% in free living pigeons (Mohammed *et al.*, 2017) [4] and with an overall incidence of 19.44% and 33.3% as per earlier report of (Sivajothi and Sudhakara Reddy, 2015) [7]. Toltrazuril is highly effective against all intracellular stages of *Eimeria*, making it superior to Amprolium in many cases. In another study (Balicka-Ramisz A and Pilarczyk B. 2014) [2], pigeons were treated with coccidiostat, Baycox (Toltrazuril) @ 20 mg/kg for 2 days for every 72 hrs orally. Amprolium is a coccidiostat drug (thiamine antagonist), by competitively inhibiting thiamine uptake by the parasite, resulting in disruption of cellular metabolism. At the end, it inhibits the development of merozoites and formation of second generation meronts (El-Ghoneimy A, El-Shahawy I, 2017) [3]. In the present study, Amprolium was effective in controlling the coccidiosis in pigeon which is similar to previous reports (Ramesh *et al.*, 2018) [5]. Preventive strategies include regular

loft sanitation, avoidance of overcrowding, periodic faecal screening and prophylactic anticoccidials management.

Conclusion

This case highlights the importance of early diagnosis and comprehensive management in controlling coccidiosis in Barb pigeons. Proper hygiene, timely anticoccidial therapy, and supportive care result in a favourable prognosis.

Conflict of Interest

The authors have declared there is no conflict of interest in publishing the paper.

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References

1. Ali JK, Alewi HH, Sawdi HA. Treatment of natural infection in pigeon birds with coccidiosis by using ginger extract in Babylon province Kufa. *Journal of Veterinary Medical Science*. 2015;6(1):15-21.
2. Balicka-Ramisz A, Pilarczyk B. Occurrence of coccidia infection in pigeons in amateur husbandry: diagnosis and prevention. *Annals of Parasitology*. 2014;60(2):93-97.
3. El-Ghoneimy A, El-Shahawy I. Evaluation of amprolium and toltrazuril efficacy in controlling natural intestinal rabbit coccidiosis. *Iranian Journal of Veterinary Research*. 2017.
4. Mohammed BR, Simon MK, Agbede RI, Arzai AH. Coccidiosis of domestic pigeons (*Columba livia domestica* Gmelin, 1789) in Kano State, Nigeria. *Annals of Parasitology*. 2017;63(3):199-203.
5. Ramesh S, Soundararajan C, Subapriya S, Sokkalingam R, Muthukrishnan S. Incidence of coccidiosis in domestic pigeons (*Columba livia*): a case report. *International Journal of Current Microbiology and Applied Sciences*. 2018;7(12):3698-3700.
6. Ramesh S, Soundararajan C, Subapriya S, Sokkalingam R, Muthukrishnan S. Concomitant infection of coccidiosis and capillariasis in fancy pigeons (*Columba livia*): a case report. *International Journal of Current Microbiology and Applied Sciences*. 2018;7(12):3701-3704.
7. Sivajothi, Reddy S. A study on the gastrointestinal parasites of domestic pigeons in YSR Kadapa district in Andhra Pradesh, India. *Journal of Dairy, Veterinary and Animal Research*. 2015;2(6):216-218.
8. Qadir AN, Nisa KU. Prevalence of coccidiosis in domestic pigeons (*Columba livia domestica*). *Journal of Parasitic Diseases*. 2015;39(4):715-718.

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