

Diseases of pigeon in and around Kolkata, India

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Abstract The present study was undertaken to survey and study the prevalence of different diseases in pigeons in regions in and around Kolkata, India. About 8,000 pigeons from Kolkata region and 2,000 from semi-urban area surrounding Kolkata were selected and 5,000 fecal specimens were collected from apparently unhealthy pigeons. From the present study, it was evident that star gazing, diarrhea and pox were the major infections. Protozoan parasites were also revealed which was caused mainly due to coccidian oocysts. In the present study it was found that the pigeons mainly suffered from star gazing condition and helminthic infection revealed majorly the presence of coccidian oocysts followed by *Capillarea* and *Ascaridia* spp.

Keywords Diseases · Fecal specimens · Parasites · Pigeons · Prevalence

Introduction

Pigeons are mainly reared in houses and their management, feeding and breeding is quite economical. Many pigeons

live in forests while others colonize in city buildings, passages and squares. Pigeons mainly feed on fruit seeds, plant shoots, fruits and grains. Pigeons feed their young ones by producing a thick, nutrient rich secretion produced from their crop. Nestlings reach their beaks into their parent's mouth and ingest their first food called pigeon milk. The objective of present study is to study the incidence of various diseases in pigeons in and around Kolkata, India.

Materials and methods

Fecal samples were collected from 8,000 pigeons of urban and 2,000 belonging to semi-urban areas. The feces were collected in air tight containers and were observed microscopically for presence of eggs of endoparasites. Fecal samples collected from different places were fixed by mixing with sufficient quantity of formalin (10%). The containers were then kept at room temperature.

Microscopical examination of feces was carried out by direct smear method and by concentration methods after sedimenting the fecal specimens by centrifugation and by centrifugation. Floatation method was also followed for examining the fecal samples by Levitation method (Willi's technique) and by Lane's method of centrifugation.

Results

In the present study it was found that pigeons of Kolkata area suffered from star gazing (24.75%), white diarrhea (10.38%) and pox (8.45%), respectively (Table 1), while those of semi-urban region 22.75% pigeon population suffered from star gazing and 9.75 and 8% population were

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Table 1 Different diseases of pigeons belonging to urban area of Kolkata

Number of pigeons surveyed	Disease	Number affected	Percentage affected
8,000	Star gazing	1,980	24.75
8,000	White diarrhea	676	8.45
8,000	Pox	830	10.38

Table 2 Different diseases of pigeons belonging to semi-urban area surrounding Kolkata

Number of pigeons surveyed	Disease	Number affected	Percentage affected
2,000	Star gazing	450	22.50
2,000	White diarrhea	195	9.75
2,000	Pox	160	8.00

found to be affected with white diarrheic condition and pox respectively (Table 2). Helminthic infection survey revealed that pigeons mostly suffered from *Capillarea* spp. and *Ascaridia columbae*. In the present study, coccidian oocysts were revealed in pigeon fecal samples. 22.40% pigeon population was found to be carrying coccidian oocysts in feces (Table 3).

Discussion

Wehr and Hwang (1964) reported presence of eggs of *A. columbae* in pigeon feces. Levine (1973) also considered *Eimeria labbeana* in pigeon.

Table 3 Helminthic infection in pigeons revealed from egg flotation method

Number of pigeons surveyed	Disease	Number affected	Percentage affected
500	<i>Capillaria</i> spp.	175	35.00
500	<i>Ascaridia</i> spp.	125	25.00
500	Coccidian oocyst	112	22.40

Conclusion

From the present study it was concluded that the pigeons of and areas surrounding Kolkata were found to be suffering from star gazing, white diarrhea, pox and other helminthic infections. Protozoan parasites revealed only presence of coccidian oocysts. Helminthic infection was found to be more in rural areas than in Kolkata, India.

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