

Pure Albinism in a Common Crow (*Corvus brachyrhynchos*): A Case Study

Md.M.M.Chowdhury¹, *M.S.I. Khan¹, M.S.H. Suvo¹, M.R. Begum²

Abstract

True albinism, whereby all melanin pigment is missing resulting in a pure white bird with red/pink eyes, is very rare in wild birds. Three common crows carried to Chittagong Zoo, Bangladesh with absent of their natural pigmentation bearing the characteristics of white color plumage, no pigmentation in skin and iris, and crow like voice. From these specific characteristics these were suggested as pure or total albino.

Key Words: Common crow, Pure albinism

Introduction

Albinism is a group of genetic disorders characterized by deficient synthesis of melanin pigment (Spritz, 1994). There are four degrees of albinism like total or pure, incomplete, imperfect and partial albinism. Pigmentation is totally absent in plumage, skin and iris in total albinism (Pettingill, 1956). The causes of several other forms of albinism have not yet been identified. It is not due to genetics always but lack of tyrosinase enzyme in living cell (Sage, 1962). Pure or total albinos simply lack tyrosinase activity in the entire organism. Mechanisms leading to loss of tyrosinase activity in local regions of a bird's skin have not been elucidated, but presumably involve mutations or other known mechanisms of gene inactivation (David and Kennedy, 2002). Albinism itself a rare problem of birds where the Pure albinos are very rare, only 7% of the 1845 cases of albinism summarized by Gross (1965). The study was done to identification of pure albinism in common crow.

Case Presentation

Three young albino crows carried to Chittagong zoo by a journalist who collected them from a nest on mango tree. They mistaken it firstly as herons or pigeon. But the residents were stunned when they see the three chicks were taken care by a pair of black crow and they also cowing like the adult crow.

Results and Discussion

All characteristics of birds were carefully examined with minimum stress to the birds. The white plumage color, white apex of beak and pink base, white eyelids, pink iris, pinkish white skin (Figure 1) and crow like voice suggested that bird as total or pure albino. In oculocutaneous albinism or total or pure albinism the pigment deficiency involves the skin, hair, and eyes (Spritz, 1994).

Conclusion

From the characteristics, it was observed that, the birds were the pure albino common crow.



Pure Albino crow

References

- David, A.R., & E.D. Kennedy (2002). Albinism in a Carolina Wren and Two House Wrens From Kansas. *Bulletin of Kansas Ornithological society* 53(2):21–23.
- Gross, A.O. (1965). The incidence of albinism in North American birds. *Bird Banding* 36 (2): 67–71.
- Pettingill, O.S. Jr. (1956). A Laboratory and Field Manual of Ornithology. p.143.
- Sage, B.L. (1962). Albinism and Melanism in Birds. *British Birds* 55: 201–225.
- Spritz, R.A. (1994). Molecular genetics of oculocutaneous albinism. *Hum. Mol. Genet* 3 (suppl 1): 1469–1475.

¹Md. Mongur Morshed Chowdhury, Curator, Chittagong Zoo, Chittagong, Bangladesh. drmdmmorshedchowdhury@gmail.com, chittagongzoodcadmn@gmail.com (Corresponding author)

*¹Md. Shafiqul Islam Khan, Assistant professor of Food microbiology, Patuakhali Science and Technology University, Bangladesh.

¹Md Shahadat Hossain Suvo, Veterinary Surgeon, Chittagong Zoo, Chittagong, Bangladesh.

²Musammet Rasheda Begum, Assistant professor of Biostatistics, Chittagong Veterinary and Animal Sciences University, Chittagong, Bangladesh.