

THERAPEUTIC DIAGNOSIS AND MANAGEMENT OF PERIORBITAL ABSCESS IN A ROSE RINGED PARAKEET

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SUMMARY

The present communication reports periorbital abscess due to vitamin A deficiency in a rose ringed parakeet. A 6-month-old parrot was presented with primary complaint of bilateral periocular swelling and alopecia since one week and normal feed intake with normal droppings. Exclusive feeding on sunflower seeds and peanuts was informed. On palpation, the periocular swelling was soft to touch. There was no lacrimal discharge or opacity. Eye reflexes were all normal with no systemic signs. The parrot was treated with oral vitamin A capsules one drop P.O. OD every alternate day for two weeks. Bird responded to treatment with slight reduction in swelling within first week and complete remission in 20 days. However, the hair did not grow back. Based upon the dietary history, clinical manifestation and response to treatment, the condition was diagnosed as vitamin A deficiency with no secondary infections.

Keywords: Parakeet, Periorbital abscess, Vitamin A deficiency

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Hypovitaminosis A is one of the most common nutritional diseases affecting pet birds (Fiskett and Reavill, 2004). Vitamin A deficiency is a self-inflicted disease caused by inadequate diet in parrots because of their selective feeding habits. Parrots fed on all-seed diets most likely suffer from vitamin A deficiency. One of the more obvious signs of this disease is a swelling around the eye known as a periorbital abscess. Periorbital disease secondary to upper respiratory infection in chronic rhinitis and sinusitis is also observed in large psittacine birds (Ritchie *et al.*, 1994, Tully and Carter, 1993). Generally, the diagnosis of vitamin A deficiency in pet birds is made on the basis of dietary history and clinical manifestations.

A 6-month old parrot was presented with periocular bilateral swelling (Fig. 1) and alopecia (Fig. 2) since one week. It started as a slight swelling which in span of time progressed to large swelling. There was history of normal feed and water with normal droppings. There was no history of lacrimal or nasal discharge or any other abnormality or behavioral change. The parrot was exclusively on sunflower seeds and peanuts. No previous illness or treatment was informed. On palpation, the swelling was soft to touch. The bird was retrained and examined using a magnifying lens. Using a flashlight, both eyes were examined for any congestion or lacrimal discharge and corneal opacity. Eye reflexes were all normal. The eyes of the bird were also examined for any foreign object in the eye. There were no systemic signs. Considering all the differentials, the bird was treated with 1 drop from cap Aquasol A® (Vitamin A capsules OD for

alternate days up to two weeks. Parenteral vitamin A was given (20,000 U/kg IM). Besides, the owner was advised to feed the bird with fruits and vegetables rich vitamin A such as spinach, broccoli, green and red peppers, carrots and pumpkin. Bird responded to treatment with slight reduction in swelling within first week and complete remission in 20 days. However, the hair did not grow back. Based upon the dietary history, clinical manifestation and response to treatment, the condition was diagnosed as vitamin A deficiency with no secondary infections.

The present communication reports periorbital abscess due to hypovitaminosis A in a young rose ringed parakeet. All sized captive birds are prone to this disease. Parrots that are exclusively fed on peanuts and sunflower seeds are more susceptible to this condition as seed diet is generally low in vitamin A. The susceptibility for the condition in parrots is increased by inadequate diet complexed by selective feeding habits. There are structural changes in the cells lining the reproductive, respiratory and digestive tracts due to which they aren't able to secrete mucous. Due to vitamin A deficiency, the protective layer formed by the mucous is disrupted due to which environmental bacteria along with potential microorganisms infiltrate the mucous membrane barrier leading to pathogen invasion. Clinical manifestations of vitamin A deficiency depend on the invading microorganisms and the system affected. The present case was not complicated with any secondary bacterial infections. Although, respiratory system is the most often affected which was not the case with affected bird. The birds usually respond to oral vitamin A supplementation as observed in this case.

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Fig. 1. Bilateral peri-ocular swelling in the six month old parrot

However, Parenteral vitamin A can be given (100,000 U/kg, IM) to the birds with inappetance or anorexia for faster recovery.

Periorbital disease secondary to upper respiratory infection is also observed in large psittacine birds (Ritchie *et al.*, 1994). The common causes are sinusitis and chronic rhinitis. Tully and Carter (1993) reported bilateral supraorbital abscesses in sinusitis in *Amazona* parrots. In present case, sinusitis was ruled out due to absence of respiratory distress, nasal discharge or any systemic signs. Other eye infections in the parrots have been reported as corneo conjunctival dermoid (Leber and Burge, 1999), staphylococcal blepharo-conjunctivitis (Shimakura *et al.*, 1981) and mycotic keratitis (Hoppes *et al.*, 2000). Ritchie *et al.* (1994) have documented post-infection abnormalities with poxvirus in Amazon and pionus parrots.



Fig. 2. Severe alopecia around eyes in the presented case

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