



Therapeutic Management of Burrowing Mite in Budgerigar

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Abstract

A 10-month-old caged budgerigar (*Melopsittacus undulatus*) was presented with a history of feeding difficulties, scaly, crusted and thickened areas around the face, beak and on the legs and unable to walk. On clinical examination, bird showed deformities of the beak, was anorexic and had white crusty lesions on the legs and surface of the toes (tassel foot). The diagnosis was done on the basis of typical clinical findings of white crusty lesions that revealed *Knemidokoptes* (burrowing mites) mites. Bird was treated with Ivermectin @0.4 mg/kg, per os, once a week for four weeks and to hasten the epithelial recovery Vitamin A, D3, E @0.3 ml/300 gm was given intramuscularly once a week for four weeks. From the third week of treatment, lesions had started diminishing and the bird showed good clinical recovery after continuous treatment for one month.

Keywords: Therapeutic; Burrowing; Mite; Budgerigar

Introduction

Burrowing mites in birds, including budgerigars, are named for their behavior of tunneling into the skin and feather follicles of their hosts [2,5]. Unlike some other ectoparasites that feed on the surface, these mites create tunnels within the host, causing irritation, discomfort, and health issues. They use these tunnels to lay eggs and feed on the bird's blood and tissues, posing a threat to the host's well-being [5].

Knemidokoptes are eight-legged mites that are microscopic in size and are related to spiders and ticks. *Knemidokoptes pillae*, are a microscopic species of mite that cause skin problems by burrowing under the skin common in budgerigars but sometimes affect canaries, finches and a variety of other bird species [6].

The mites are extremely contagious, so if one bird is infested, it's almost certain that its fellow birds will also become infected. These mites can attack different parts of a bird's body, including the face, legs and vent. They have the capacity to burrow into a

bird's beak, causing it to grow abnormally, and can also lead to secondary bacterial infections. Swift treatment is vital to protect the affected birds from harm [3,6].

History

- Off-feed from last 1 week due to abnormal beak.
- Difficulty in perching and walking.
- Treated by a local veterinarian.

Clinical signs

- Behavioral changes, reluctance to move in a cage, decreased perching.
- There is no itching.
- Signs of an infestation are displayed around the beak, cere and legs. Scaly face, scaly legs and due to an abnormal beak bird is partially anorexic dull and depressed [1,3].
- White, porous, proliferative encrustations involving the corners of the mouth, cere, beak, periorbital area and legs are typical.

- Crusts form on the legs and surfaces of the digits = “tassel foot” [5].



Figure 1: Rough, scaly and crusty beak of affected bird due to burrowing mites.



Figure 2: Scaly, rough and swollen legs of affected bird.

Diagnosis

- The white crusts forming on the skin are a sure sign of burrowing mite infestation [1,6].
- Clinical appearance is generally pathognomonic.
- The mites can be recovered from facial scraping or skin scraping but scrapings often result in hemorrhage and are generally not recommended [5].

Therapeutic management

- Bird was treated with Ivermectin @0.4 mg/kg, per os, once a week for four weeks.
- To hasten the recovery Vitamin A, D3, E @0.3 ml/300 gm was given intramuscularly once a week for four weeks [1,3,4].
- Advised to give liquid or soft diet by using an eye dropper or needleless syringe.
- Since these mites live only on the bird, it is not necessary to treat the cage area with disinfectant or any product that kills mites. These products can be dangerous to a bird due to their sensitive respiratory system and can cause toxicity [3,4].
- From the third week of treatment, lesions had started diminishing and the bird showed good clinical recovery after continuous treatment for one month and started feeding normally as well as being active and alert.

Conclusion

Burrowing mites cause skin problems by burrowing under the skin and also attack the facial areas, legs and vent which is common in budgerigar. Clinical Signs include scaly face, scaly legs and tassel foot. The white crusts forming on the skin are pathognomonic sign of burrowing mite infestation and skin scrapping is generally avoided for burrowing mites in budgerigar. Bird was treated with ectoparasiticide and supportive therapy if needed.

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