Lipoma in cockatiel (*Nymphicus hollandicus*) -A case report-

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Abstract

In the past years the cockatiel parrot as pet has risen in number and consequently the pathology related to captivity conditions increased. The present paper describes a lipoma case in cockatiel (Nymphicus hollandicus), a female age 5years old with a formation located in left wing, carpal region. Following clinical exam, the 1x1.5cm tumoral formation was identiffid and surgical excision was recomanded. The owner refuzed the surgergical procedure and returned after 2 months with the bird accusing a deteriorated condition and enlarged tumor measureing 2x3cm. After cockatiel death the tumor was examined histopathologically. The final diagnostic was benign tumor well delimitated by surrounding tissues – a lipoma located in subcutaneous tissue from left carpal region.

Key words: *cockatiel(Nymphicus hollandicus), lipoma, subcutaneous tumors*

Introduction

The name of the nymph parrot comes from the greek "*Nymphicus*" wich means bride. As temperament the nymphs are very gentle, cheerful, affectionate, curious, sociable, loving the company of man but also of other birds and they like to be the focus of attention.

The feeding of captive birds should be similar to that of their natural environment, which is an essential condition.

Water and feed can be a frequent source of bird illness by direct and indirect transmission of pathogens, from diseased to healthy birds, but also through limited intake of vitamins and minerals.

The majority of birds living in captivity are fed with various types of food of plant origin: mixtures of gramineous and oleaginous seeds, greens, fruits but also roots. Gradually animal products such as eggs, cheese, insects, ants can be introduced into the feed.

For a bird's ration to be complete, we can also introduce an assortment of mineral salts, shellfish, bones, and egg shells.

Another important factor in feeding these birds are mineral salts, which are very important for strengthening the bone system and physiological functioning of the body.

These mineral salts are administered using egg shellfish, bone meal, fodder chalk and shellfish (cuttlefish).

Depending on each species, a bird's needs are different, ranging from cage size, nutrition, microclimate, stress factors, and the cage location.

Any microclimate or diet imbalance produces stress and it can be seen in the bird's health condition (Cardoso F. and all, 2013).

Lipoma is a pathology that has as main causes the fat deposits due to excessive nutrition and hipovitaminosis E and A (Tanase I.O., 2016).

In the following work, a case of lipoma localized and diagnosed at a nymph is described.

Materials and methods

Within the discipline "Pathology of exotic and recreational animals" a 5 year old bird from the "*Nymphicus hollandicus*" species was presented for examination, having a formation at the left wing level.

This formation has doubled in size for the last two weeks. There were no feathers on the surface of the formation, because the nymph was pecking and the area was slightly hyperemised.

After the clinical examination, treatment with Clorhexidine aqueous buffer was applied only to ensure good hygiene (Tanase IO, Daraban F., 2015) at the level of the formation, because the owner did not take responsibility for a possible surgical extirpation of the formation.

After a period of two months, the owner returned with the nymph, the general condition of the bird worsened and the wing formation reached the size of a nut.

The second day the bird died, fragments were collected from the formation and a histopathological examination was performed to elucidate the type of lesion (Lightfoot T. and all, 2006).

Results and discussion

Following the clinical examination of the 5 years old nymph, it has been found that, this presented in theskin of the left wing a nodular formation of the size of a peanut (fig. 1).

Fig. 1 Nymph with nodular formation on the left wing

Due to this increased formation at the wing level, the bird was apathetic, refused to move and had a capricious appetite.

After a period of two months, during which the affected area was treated conservatively, the owner returned with the nymph, because she stopped eating, was apathetic, presented horiplumation and the formation at the wing level reached the size of a walnut and had a dry appearance (Figure 2, Figure 3).

Fig. 2 Nymph with a modified general condition

Fig. 3 The macroscopic aspect of the formation

After the bird death, a glossy, light-colored appearance with many infiltrations, a fatty aspect and a tough consistency were observed on the sectional area. (Figure 4)

Fig. 4 Macroscopic aspect by section

After the histopathological examination, the presence of crucified tissue and dermo-epidermal inflammatory infiltrate was found on the tumor surface (Figure 5). Figure 6 shows cutaneous hyercheratosis and the corneous layer is well represented and largely desquamated. In cage birds, the main cause of cutaneous hyperkeratotis is represented by hypovitaminosis A and E (Paunescu I.C., 2007).

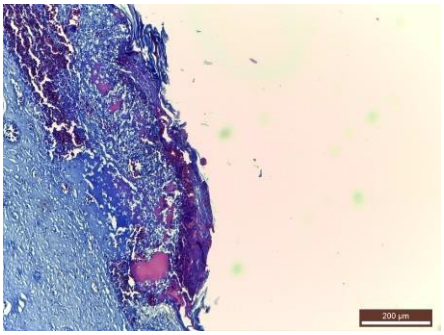

Fig. 5 Epidermal crust – inflammatory aspect dermo-epidermal; x100; HEA staining

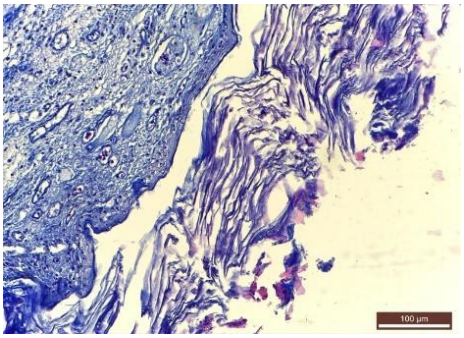

Fig. 6 Skin hyperkeratosis, well represented stratum corneum; x200; HEA staining.

The histopathological examination revealed the structure of a benign tumor of a lipoma (Cowan M.L. and all, 2011). Lipoma is a benign, mesenchymal polygonal tumor consisting of well-differentiated adipocytes and a discrete stroma (Figure 7). Tumor masses showed lymphocytes, eosinocytes and fine neoformation capillaries (Figure 8).

The lesion was represented by the tumor formation, which was placed in the subcutaneous tissue and well delineated by the adjacent structures, through a thick connective capsule consisting of fibroblasts and collagen fibers. Large sized neoformation vessels were found in the capsule (Bradford C. and all, 2009).

Lipo-epidermal prominences were located at the surface of the lipoma, consisting of dermal conjunctival proliferations and epidermal hyperkeratosis. All of these changes are due to hippocampynosis A.

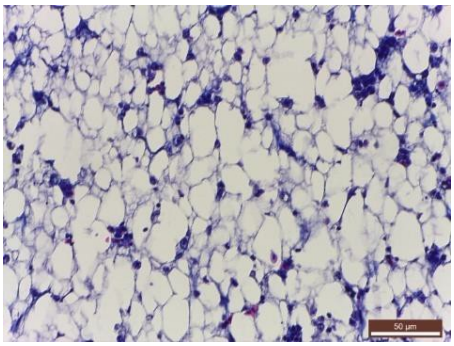

Fig. 7 Benign tumor with well-differentiated adipocytes, discreet stroma; x100; HEA staining

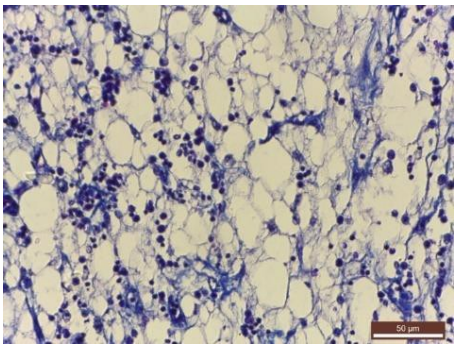

Fig. 8 Lipoma - benign tumor, fine capillaries of neoformation; x400, HEA staining

Conclusions

Following the examination of a cage bird "Nymphicus hollandicus", presented during the consultation in the „Pathology of exotic and recreational animals" discipline, the following can be concluded:

1. The bird presented a nodular formation on the left wing wthat doubled the size in two months, reaching the size of a nut.
2. The macroscopic formation was smooth and glossy on the section, with a fatty aspect.
3. Microscopic epidermal hyperkeratosis with voluminous corneum was identified, the cause being hippocytaminosis A.
4. Following histopathological examination, the diagnosis was lipoma (benign tumor), localized in the subcutaneous tissue of the wings and well defined by the adjacent structures.

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