

## Chronic regurgitation in a cockatiel (*Nymphicus hollandicus*) with a trichobezoar

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### Summary

Crop disorders are very common in small psittacine birds. Psittacine birds are very curious and like chewing on different materials. Therefore, they are predisposed to ingest foreign material. In the literature only very few cases have been reported. This case report describes the clinical examination, the diagnostic workup and the ingluviotomy in a cockatiel with a bezoar in the crop.

Keywords: regurgitation, crop disease, foreign body, trichobezoar, ingluviotomy

### Chronisches Regurgitieren bei einem Nymphensittich mit Trichobezoar

Erkrankungen des Kropfes sind bei Papageien häufig anzutreffen. Da Vögel gerne an verschiedenem Material herumkauen, sind sie prädisponiert Fremdkörper aufzunehmen. In der Literatur ist nur sehr wenig über solche Fälle publiziert. Dieser Fallbericht beschreibt die klinische Untersuchung, die diagnostische Aufarbeitung und die Inguviotomie bei einem Nymphensittich mit einem Bezoar im Kropf.

Schlüsselwörter: Regurgitieren, Kropferkrankungen, Fremdkörper, Trichobezoar, Inguviotomie

### Introduction

Crop disorders are very common in small psittacine birds. Any factor that results in crop irritation or dysfunction can lead to regurgitation. Infectious causes e.g. trichomoniasis, candidiasis, and megabacteriosis must always be considered as differential diagnoses in small psittacines with regurgitation. But as psittacine birds are of inquisitive nature and like chewing, they are predisposed to ingest foreign material. Especially juvenile birds are at risk to swallow inappropriate material (Kummerfeld et al., 1989; Oglesbee and Steinhort, 2001). Although there are some reports on gastrointestinal foreign bodies, very few cases have been reported in literature (Speer, 1998; Ingram, 1990; Cannon, 1992). This case report describes the diagnostic workup and treatment in a cockatiel with a foreign body in the crop.

### Case history

A 9 year old, male cockatiel (*Nymphicus hollandicus*) was presented with a history of generalised weakness, reduced appetite and regurgitation for two weeks. The bird was housed in a mixed indoor aviary with 17 cockatiels and 6 budgerigars (*Melopsittacus undu-*

*latus*) with regular free flight in the house. No new bird was introduced to the flock within the last 12 months. When observed in the examination room the bird appeared depressed with fluffed feathers. Physical examination revealed emaciation (body weight 84 g) and an enlarged crop with soft and solid content. Polyuria and biliverdinuria was observed during examination. A crop wash was performed with warm, sterile saline solution for microscopic evaluation. The crop wash was highly malodorous but no abnormal findings were found microscopically in the unstained sample.

Whole-body radiographs were obtained (Fig. 1) and evaluation revealed a distended crop with a mass of approximately 1 to 2 cm of soft-tissue density. The proventriculus was mildly dilated and the small intestines were moderately filled with gas. The findings were suspicious for a foreign body or neoplasia in the crop with secondary dysentery.

The bird was anaesthetized with isoflurane (Induction 4%, maintenance 2%) and carprofen (4 mg/kg BW i.m., Rimadyl®, Pfizer, Germany) was given for perioperative analgesia. An ingluviotomy was perfor-



Figure 1: Whole-body survey radiograph (ventrodorsal view) of a 9-year old, male cockatiel with a history of two week regurgitation. The crop is distended showing a mass of approximately 1 to 2 cm of soft-tissue density.

med as described by Roskopf (1982) and a bezoar consisting of wool (Fig. 2) was removed. The opened crop was rinsed with warm, sterile saline solution and then closed with polyglactin (Vicryl 6-0) in one continuous suture. The skin was sutured separately in the same manner. Recovery after surgery was uneventful and treatment consisted of carprofen (4 mg/kg BW i. m., every 24 hours, Rimadyl<sup>®</sup>, Pfizer, Germany) for two days and enrofloxacin (10 mg/kg

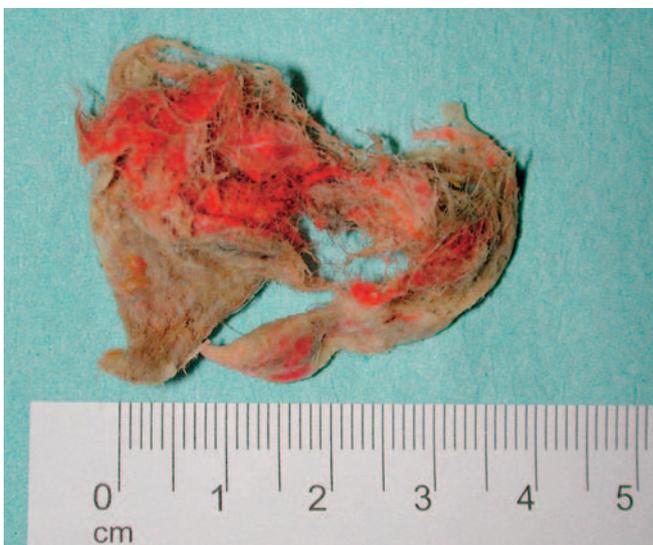


Figure 2: Bezoar consisting of wool was removed from a cockatiel showing chronic regurgitation.

BW i. m., every 24 hours, Baytril<sup>®</sup>, Bayer AG, Germany) for five days. The cockatiel started to eat on the next day and bodyweight increased to 92 g after three days, so the bird was sent home in good general condition.

## Discussion

The clinical signs in birds with foreign bodies are often unspecific compared to acute foreign-body obstruction in cats and dogs. Although regurgitation or diarrhoea may be seen, anorexia and depression are more common, especially in proventricular and ventricular foreign bodies due to gastric mucosal irritation (Speer, 1998; Ingram, 1990; McCluggage; Lumeij, 1994; Cannon, 1992). These signs may be seen in any disease causing stasis of the gastrointestinal tract (neoplasia, impaction) or metabolic and infectious diseases (trichomoniasis, candidiasis, chlamydia etc).

Bezoars are fibrous conglobates, which arise from ingestion of wool, synthetic fibres or similar material. Such bezoars lead to prolonged passage times of food or may result in total obstruction of the gastro-intestinal tract. Emaciation is often seen in chronic cases (Kummerfeld et al., 1989). Diagnosis of gastrointestinal foreign bodies is based on clinical signs, palpation of the crop, diagnostic imaging, and identification by endoscopy or surgery. In cases where the ingestion of the foreign material has been observed the history may be especially helpful for diagnosis. On radiography a radiopaque mass or distention of the affected portion of the gastrointestinal tract may be seen. A foreign body in the crop and proventriculus may be removed with an endoscope (Ogelsbee and Steinhort, 2001). Caution is recommended to avoid damage to the mucosa with this method, especially when the foreign body has to be removed in several parts. Surgical removal via ingluviotomy is required if the object is too large being the safest way to evacuate the crop (Harrison, 1983; Roskopf, 1982; Roskopf and Shindo, 1993). Possible complications with this technique may be postsurgical dehiscence of the crop (Ogelsbee and Steinhort, 2001).

## References

- Cannon I.*: Proventricular and ventricular obstruction with bedding materials. *J. Assoc. Avian Vet.* 1992, 6: 40.
- Harrison G.J.*: Inguviotomy for foreign body removal in a neonatal macaw. *Assoc. Avian Vet. News.* 1983, 90.
- Ingram I.*: Proventricular foreign body mimicking proventricular dilatation in an Umbrella cockatoo. *Proc. Ann. Conf. Assoc. Avian Vet.* 1990, 314–315.
- Kummerfeld N., Haefeli W., Hahn U.*: Bezoars and lithiasis in pet birds. *Kleintierprax.*, 1989, 34: 75–78.
- Lumeij JT.*: Gastroenterology. In: *Avian Medicine: Principles and Application*. Eds. B.W. Ritchie, G.J. Harrison and L.R. Harrison. Wingers, Lake Worth, FL, 1994, 482–521.
- McCluggage D.*: Proventriculotomy: a study of selected cases. *Proc. Ann. Conf. Assoc. Avian Vet.* 1992, 195–198.
- Oglesbee B., Steinhort L.*: Gastrointestinal string foreign bodies in a juvenile Umbrella cockatoo. *Comp. Cont. ed.* 2001, 946–950.
- Roskopf W.J.*: Cropotomy in a parrot. *Mod. Vet. Pract.* 1982, 221–222.
- Roskopf W.J., Shindo, MK.*: Crop disorders in pet avian species. *Proc. Ann. Conf. Assoc. Avian Vet.* 1993, 263–267.
- Speer, BL.*: Chronic partial proventricular obstruction caused by multiple gastrointestinal foreign bodies in a juvenile Umbrella cockatoo. *J. Assoc. Avian Vet.* 1998, 12: 271–275.

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