

**Short communication**

**OESOPHAGEAL IMPACTION IN AN INDIGENOUS GOOSE**

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**ABSTRACT**

An esophageal impaction consisting of plant material was diagnosed and treated in an indigenous goose. An adult free-flying indigenous goose with flaccid neck muscles, lethargic, emaciated and mildly dehydrated was brought to TVH (Teaching Veterinary Hospital), Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong, Bangladesh. Palpation of neck revealed solid tubular mass ventrally in the mid cervical region. Treatment included oesophagotomy and drug therapy. The bird was fully recovered within 10 days of post operation.

**Key words:** Impaction, cervical region, oesophagotomy

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**INTRODUCTION**

Oesophageal impaction has been frequently reported in geese. These impactions consist of vegetable matter such as dry soyabeans, cow peas and mixed green plant species and have been associated with the nature of the plant material (Jarvis, 1976), excess feed intake (MacNeill and Barnard, 1978), *Amidostomum* sp. infection in gizzard (MacNeill and Barnard, 1978) and ingestion of fishing sinkers or lead shotgun pellets (Dumonceaux *et al.*, 1994) or nylon fishing line (Muscatello, 1998). The study reveals the diagnosis and successful management of oesophageal impaction.

**MATERIALS AND METHODS**

The affected goose was brought to TVH, Chittagong Veterinary and Animal Sciences University, Khulshi, Chittagong, Bangladesh on the dated 16 September 2007. The goose was in TVH from the hilly areas of Khulshi, Chittagong with the owner's complaint of that the goose was unable to intake food and there was a swelling in the neck region that were observed 24 hours before bringing it to TVH. The author thoroughly examined the bird. The weight of the bird was 4.5 kg on clinical examination, the bird was found lethargic, and had mild dehydration. Its mouth was soiled with regurgitated food. The bird was incapable to extend the neck fully which appeared flaccid. A firm tubular mass was palpable on the ventral surface of the mid cervical region. Palpation indicated the presence of some grit or seed. The impaction of the oesophagus was approximately at the level of C<sub>8</sub> to C<sub>12</sub>. The authors tried to dislodge the impacted material by external manipulation and by long alligator tissue forceps. Efforts were unsuccessful and oesophagotomy was performed. Before operation, the bird was anaesthetized by Ketamine HCl at the dose rate of 25 mg/kg body weight (Hall *et al.*, 2001). The feathers of the neck were plucked and prepared for the aseptic surgery from C<sub>5</sub> to C<sub>14</sub>. A ventral right paramedian longitudinal skin incision about 1.5 inches in length was made over the impaction to expose the oesophagus. A similar incision was made in the oesophagus revealing an elongated impacted mass of grass. The oesophageal mucosa was pink and vascular and assessed as viable. The surgical site and lumen of the oesophagus were cleaned with distilled water and then wound of the oesophagus was closed with 4/0 absorbable catgut in a single layer of simple interrupted suture and then over sewn in a simple continuous suture. The skin was closed in a simple interrupted suture and finally a benzoin seal was given over the skin suture. Postoperative care was done by injection of oxytetracycline (Renamycin<sup>®</sup> 100, Renata Ltd., Bangladesh) @ 20 mg/kg body weight daily for 5 days. Besides oxytetracycline, Vitamin-B complex (Vitamin B<sub>50</sub> vet<sup>®</sup>, Square Pharmaceuticals Ltd., Bangladesh) was also injected intramuscularly @ 1 ml every alternate day for 5 days. The goose was supplied esophageal gavage with liquid feed up to 7 days of operation.

## RESULTS AND DISCUSSION

The goose was bright alert, responsive and improvement in neck muscle tone was evident on 3rd days of surgery. Vocalizing with its neck erect was also recorded on 3<sup>rd</sup> day of postoperative period. The goose was recovered completely by 10 days after surgery.

Nonsurgical management of oesophageal impaction is usually the choice of treatment but the attempts were unsuccessful in this case, for that reason oesophagotomy was performed. The cervical oesophagus is located subcutaneously providing easy surgical access (Dyce *et al.*, 1987) and the use of a strong, well apposed single layer of simple interrupted sutures oversewn with continuous suture seemed effective. The risk of complications in wound healing associated with oesophageal surgery necessitated the use of an antibiotic after surgery. In this case there was no oesophageal mucosal necrosis, so only simple oesophagotomy was performed. Thus, the complications to healing associated with full- thickness resection in the dog (Fingeroth, 1993) and birds (Bennett and Harrison, 1994) were avoided.

Oesophageal impaction in this case was diagnosed on the basis of clinical examination. Oesophageal, crop, proventriculus and ventricular impaction have been associated with lead poisoning in waterfowl (Dumonceaux *et al.*, 1994; Murase *et al.*, 1992; Windingstad and Hinds, 1987) presumably due to lead induced paralysis of the organs (Hunter and Wobeser, 1980; Kober and Cooper, 1976). Many of the common clinical manifestation of lead poisoning were evident but after oesophagotomy there were no metal derivatives in impacted material.

The oesophageal impaction was plant material which was confirmed by oesophagotomy and intensive post operative treatment resulted in recovery and wound healing within 7 days of initial presentation.

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