

SURGICAL REMOVAL OF A PROVENTRICULUS FOREIGN BODY FROM OSTRICH (STRUTHIO CAMELUS): CASE REPORT

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SURGICAL REMOVAL OF A PROVENTRICULUS FOREIGN BODY FROM OSTRICH (*STRUTHIO CAMELUS*): CASE REPORT

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ABSTRACT

A six months old Ostrich (*Struthio camelus*) was reported to Veterinary Hospital Universitas Airlangga referred for a history of foreign body ingestion with the clinical description of cachexia, dehydration, apathy, decubitus, dry and scanty feces. Radiography and physical examination revealed foreign body within the proventriculus. Surgical removal foreign body (nail, plastics, seeds, hooks, stones, and ceramic) by proventriculotomy under general anesthesia was attempted. Two months of follow up surgery revealed no complications.

Keywords: Ostrich, proventriculus foreign body, surgical treatment

CASE DESCRIPTION

A six months old Ostrich (*Struthio camelus*), 27 kg, female was reported to Veterinary Hospital Universitas Airlangga. The owner informed that general condition of the ostrich was gradually worsening in last 10 days and water intake was decreased within a term debilitating the case to stand on foot. In clinical examination, none of any or bone fracture was found but the weight loss, dehydration, apathy, decubitus, dry and scanty feces. Abdominal palpation showed a sensitivity.

Radiographical examination: With considering the history and clinical symptoms, foreign body was found (Fig. 1) in the lateral position abdominal X-ray.

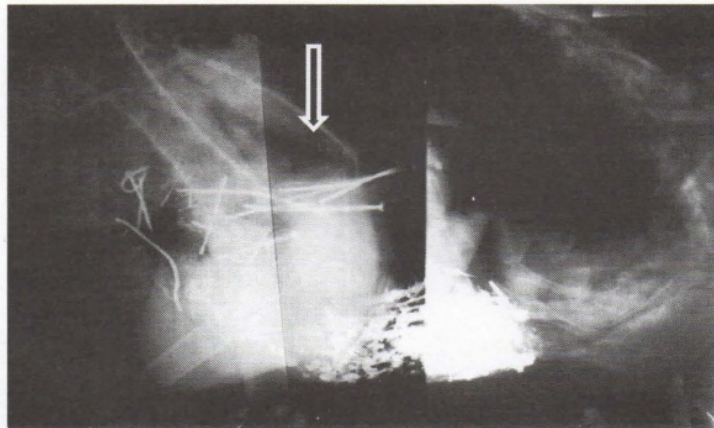


Figure 1. The abdominal position of the foreign body in the case seen on lateral X-ray (arrow)

Treatment: We there²re decided to remove the foreign body through a proventriculotomy. Xylazine HCL (1mg kg⁻¹) and Ketamine HCL (20 mg kg⁻¹) was intramuscularly administered to put the ostrich under general anesthesia for surgical treatment. Then, animal were prepared

for operation according to the technique applied by Shwaluk and Finley (1995). The ostrich was placed in right lateral recumbency on a pad. A band of quilled feathers, left of the ventral midline, was plucked from the caudal end of the sternum to a point 5cm caudal to the thigh. This area was aseptically prepared and routinely draped. A left paramedian approach was used to exposed the proventriculus. Incision was made 3 cm through the skin and rectus abdominis muscle over the impacted proventriculus. The proventriculus was opened with a stab incision that was enlarge to 3 cm. Foreign material consisting of pieces of chopped alfafa, nail, screw, plastics, seeds, hooks, stones, and ceramic (Fig. 2 and Fig. 3) were removed from the proventriculus and ventriculus using hemostats. The opening from the proventriculus into the ventriculus is large in ostrich, thus foreign material in the ventriculus can be seen and removed through the proventriculus. The proventriculus and ventriculus were lavaged with sterile saline and closed with a simple continuous suture pattern, followed by a simple continuous pattern on rectus abdominis muscle, and the skin was closed using a simple interrupted pattern. All suturing was done using 2-0 Chromic Catgut. Fluid therapy, vicillin (ampicillin) t.i.d for 5 days in a dosage 20 mg kg⁻¹ and B₁ and B₆ vitamin combination i.M. were given in the postoperative period. Two months of follow up surgery revealed no complications.



Figure 2. Foreign material consisting of pieces chopped alfafa



Figure 3. Foreign material nail, screw, plastics, seeds, hooks, stones, and ceramic

DISCUSSION

The main problem in Ostrich (*Struthio camelus*) are obstruction and foreign materials in the gastrointestinal system, nutritional and behavioral disorders, respiratory system problems, foot problems, fracture and dislocations (Alkan *et al.*, 2001). Gastric impaction in ostrich occurs mainly by access to foreign materials which should not be within the reach of animals and/or as a result of behavioral problems which reflect errors in the flock management, including stressful conditions, animal translocation, poor sources or low fiber nutrition, sudden changes in feeding schedule and/or



composition, ¹ changes in bedding or introduction of it for adult animals, lack of space for handling, and high density of animals (Yukseket al., 2002).

Ostriches are ground eating animals and habitual peckers (Samson, 1992). In the wild, young chicks will roam up to 25 miles in 1 days and will pick up very few objects they do not digest (Drew et al, 1991). In captivity, ostriches are not allowed such freedom of space and did not have opportunity to roam. This condition causing stress and boredom, this young chick pecked at bedding and become impacted. Bedding is used by most ostrich procedures. It should be introduced gradually, starting on day 1 after hatching, to allow chicks adaptation (Steward, 1990). Many different types can be used, but it is important that the type of bedding is not switched at a later date, as this may stress the birds and cause ingestion of the new bedding, leading to impaction. The pens or rooms must be free from foreign objects, such as rocks or nails, to avoid ingestion by the ostrich. Young ostrich must be taught or encouraged to eat. Feed and water must be readily available at all times. A bird that a few days older and knows how to eat properly may be placed with younger birds as an example to them. Stressor, such as movement of birds to a new enclosure, stale air, noise, lack of room to exercise, and poor feed, must be avoided as they are thought to contribute to the incidence of impaction (Doornenbal, 1992).

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Figure 2. Foreign material nail, screw, plastic, seeds, hook, stone, and ceramic

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