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Clinical Note

**Surgical Treatment of a Case of Rectal Prolapse in a Young African Rhinoceros (*Diceros bicornis*)**

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**SUMMARY.**—A case of rectal prolapse in a young African black rhinoceros is reported. The details of general anaesthesia, and surgical treatment of the prolapse, are described.

*History and Examination.* The subject, a female African black rhinoceros, was the third offspring produced by her parents in captivity. She was born on August 24th, 1964, and progressed normally until January 8th, 1965.

The first symptom was a flow of fresh blood from the rectum followed three hours later by an eversion, approximately 5 cm. long, of bowel mucosa through the anus. The animal then began to strain, and because of contraction of the anal sphincter, the everted bowel quickly increased in size and became congested, turgid and oedematous.

The lesion was obviously either a rectal prolapse or an intussusception and immediate treatment was considered advisable.

The animal was persuaded to enter a narrow wooden crate and thus separated from its mother.

*Anaesthesia.* In spite of being only four months

old, the baby was remarkably aggressive and very powerful. Its weight was estimated at 250 kg. and premedication was achieved with an intramuscular injection of 200 mg. promazine hydrochloride.\*

After 20 minutes, anaesthesia was induced by holding the head in a close-fitting face mask connected to a Weaver (1960) large animal circle apparatus delivering equal volumes of oxygen and nitrous oxide, and 6 per cent. halothane.† The time taken for loss of consciousness was approximately three minutes. The animal was then transferred from the crate to a table and the concentration of halothane was gradually reduced to 1.5 per cent. and maintained at that level throughout the examination and operation.

*Surgical Treatment.* After confirming that the everted bowel was, in fact, a second degree rectal prolapse and not a descending intussusception, immediate surgical treatment was considered advisable as the prolapse was already seriously traumatised. Moreover, because of the difficulty of restraint, it was decided to carry out a radical operation at once rather than to risk a recurrence of the prolapse and the necessity for a second general anaesthetic.

The technique adopted was sub-mucous resection removing only mucous membrane and leaving the sub-mucous tissue intact. After an initial encircling incision through the outer layer of mucosa close to the anal sphincter, the prolapsed mucous membrane was separated by blunt dissection from the sub-mucous tissue. This sleeve of mucosa was then removed in quadrants, the free mucosal borders being sutured with interrupted stitches of 2/0 chromic catgut as each section was cut.

Anaesthetic administration was stopped at the end of the operation and the total anaesthetic time was one hour. A prophylactic dose of 1,500 i.u. tetanus antitoxin was injected intramuscularly and the animal was then placed on a straw bed in a trailer. Recovery from the anaesthetic was rapid, the animal being fully conscious after 15 minutes, and standing within an hour.

Next morning, it had regained its aggressiveness and was returned to its mother. It fed immediately and made an uncomplicated recovery.

*Discussion.* The aetiology of the prolapse in this case is uncertain. There had been no preceding straining or diarrhoea and the rectal haemorrhage suggests a possible traumatic cause. The mother was in the habit of nuzzling the baby along in front of her and it seems likely that her horn accidentally damaged the rectal mucosa and caused the bleeding. A small sub-mucosal haematoma could then have provoked a straining reflex with eversion of the terminal rectum.

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Reference

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\* Sparine: John Wveth & Brother Ltd

**A Case of Torsion of the Spleen in a Dog.—Concluded.**

common. The conditions have a number of similar features, and the differential diagnosis has been well described (Graham, Ketchell & Bodendistel, 1962).

The stomach is dilated in both conditions, and the abdomen varies in size and shape depending on the duration of the condition. The tightly distended stomach may be visible in a gastric torsion and a stomach tube cannot be passed. It will usually be necessary to incise the stomach to allow manipulation. Shock is liable to be greater and of faster onset in a gastric torsion.

In a splenic torsion the grossly enlarged spleen may be visible in the abdomen, and is easily palpated. A stomach tube can be passed, and this is the main differential diagnostic feature. In the above case the dog could not have vomited had a gastric torsion been present.

In view of the fact that both conditions are seen in the larger breeds of dogs and that symptoms frequently commence after a heavy meal, owners of these breeds may be well advised to keep their animals on a régime of two meals per day.

References

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