

ANAESTHESIA OF THE FOOT IN BUFFALOES

(With Two Figures)

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SUMMARY

Complete anaesthesia of the fore-and hind-foot in buffaloes was achieved after injection of 5 ml of 5% procaine HCl at 4 sites. A technique of inducing anaesthesia of one claw by injection at 2 sites is described.

INTRODUCTION

Regional anaesthesia of the foot in cattle (*Bos taurus*) has often been found valuable and desirable either in diagnostic purposes or in surgical operations for interdigital fibromata, amputation of the claw and other affections of the foot.

Many authors have worked on the subject of anaesthesia of the foot in cattle (PINCEMIN, 1933; GIBBONS, 1939; RAKER, 1956; SCHREIBER, 1956, TAYLOR, 1960; WRIGHT and HALL, 1961; COLLIN, 1963; WESTHUES and FRITSCH, 1964) but there has been no published account of its application in buffaloes.

Therefore the purpose of this work is to provide the practitioners with information regarding the application of anaesthesia of the foot in buffaloes.

ANATOMICAL CONSIDERATIONS

The distribution of the nerves supplying the fore- and hind-foot in buffalo was carefully studied in order to determine precisely the position of each nerve and its related surface landmark. Twenty formol fixed feet (10 fore and 10 hind) of adult Egyptian buffaloes were used for demonstration of the nerves of the feet.

Dissection revealed that in buffaloes, the nerves of the fore- and hind-feet assume a similar course of distribution to those in cattle (*Bos taurus*) (HABEL, 1950; WAY, 1954; GETTY, 1975). However in the fore-foot of buffalo the communicating branch detaching from the lateral branch of the median nerve is missing. In addition the palmar common digital nerve III is the direct continuation of the lateral branch of the median nerve.

MATERIAL and METHODS

Forty trials were attempted on a total of 4 adult female buffaloes 20 fore and 20 hind-feet to establish satisfactory anaesthesia of the feet and sterile solution of procaine HCl at 5% concentration were used. Injection of the anaesthetic solution was done after the animal had been casted and restrained. Two alternative levels for desensitising the foot were used (hind and low blocking anaesthesia) (Figs. 1 & 2).

A. Anaesthesia of the fore-foot:

h. high nerve blocking: Ten trials were attempted, an injection of 5 ml of procaine HCl -5% solution was introduced over each of the concerned nerves at 4 sites, (Fig. 1).

- 1- The median nerve: subtheal injection $1\frac{1}{2}$ inch below the carpus medial to the superficial flexor tendon and adjacent to the interosseous ligament.
- 2- The superficial branch of the radial nerve: subfascial injection $1\frac{1}{2}$ inch below the carpus and medial to the carpus and medial to the tendon of the medial digital extensor.
- 4- The palmar branch of the ulnar nerve: subtheal injection $1\frac{1}{2}$ inch below the carpus, lateral to the superficial flexor tendon and adjacent to the interosseous ligament.