

Short communication

AN INSTRUMENT FOR ASEPTIC COLLECTION OF UTERINE DISCHARGE

Uterine infection is one of the most common etiological factors, for cattle infertility. To diagnose and carry out successful treatment of such conditions, aseptic collection of uterine content is absolutely essential. For the last several years many types of devices were utilized for this purpose. Of these, the most common one is the uterine catheter designed by Minocha *et al.* (1964). Ghosh *et al.* (1980) modified this equipment for uterine biopsy. However, perfect aseptic collection of uterine discharge could not be achieved. Hence the present work was taken up to improve the available catheter for aseptic collection of uterine discharge.

An instrument was fabricated as a modification of the design proposed by Minocha *et al.* (1964). The instrument consisted of three telescoping metal tubes, the outer one was having a length of 30.5 cm, with outer diameter of 0.7 cm and thickness of 0.1 cm. This was having a circular base of 4 cm diameter and 1 cm thickness, for holding the instrument conveniently at the time of collection of sample. The second tube (middle tube) had a length of 50.5 cm, with outer diameter of 0.5 cm, and thickness of 0.1 cm. The inner tube (sampler) was 58.5 cm long with an outer diameter of 0.3 cm and thickness of 0.1 cm. Sampler was having two holes, each of 0.5 cm in length and 0.2 cm in width and situated one at 0.4 cm and the other at 0.8 cm away from the tip, on opposite sides, and intended for aspirating the discharge for the uterus. The tip of the sampler was blunt and extending 0.1 cm outwards on all sides, so that this extension covered, the tip of the middle tube to prevent entry of contamination during introduction. A stiletto (70 cm length and 0.20 cm diameter) was provided inside the inner tube (Fig.1).

The instrument was cleaned well before use and dried in air drier. The outer tube, the inner assembly containing the second tube, and the sampler with the stiletto were wrapped separately in wrapping paper and sterilized at 160°C for one hour in hot air oven.

After cleaning the external genitalia of the animal and separating the vulval lips, the sterilized outer tube was introduced into the vagina, upto the external os and held in position. Then the second and sampler tubes with stiletto were introduced through the outer tube, until the tip of it reached the site of collection in the uterus. The stiletto was removed and the sampler alone was pushed 1.3 cm further forwards so that the two openings on either sides were exposed. The discharge from uterus was aspirated by applying negative pressure through an adaptor and syringe attached to the outside end of the sampler.

The sampler was then drawn back so that the openings, on it were closed, and the sampler with middle tube was taken out through the outer tube. The outer tube was also removed gently. The sample collected was transferred into a test tube containing the media for further microbiological studies.

The newly designed instrument was used for the study on endometritis based on antibiotic sensitivity tests of bacterial isolates from uterine discharge. The study was carried out on cows and heifers brought to artificial insemination centre attached to the Department of Animal Reproduction and animals maintained in University Livestock Farm. The instrument was used successfully throughout the study for aseptic collection of the uterine discharge.

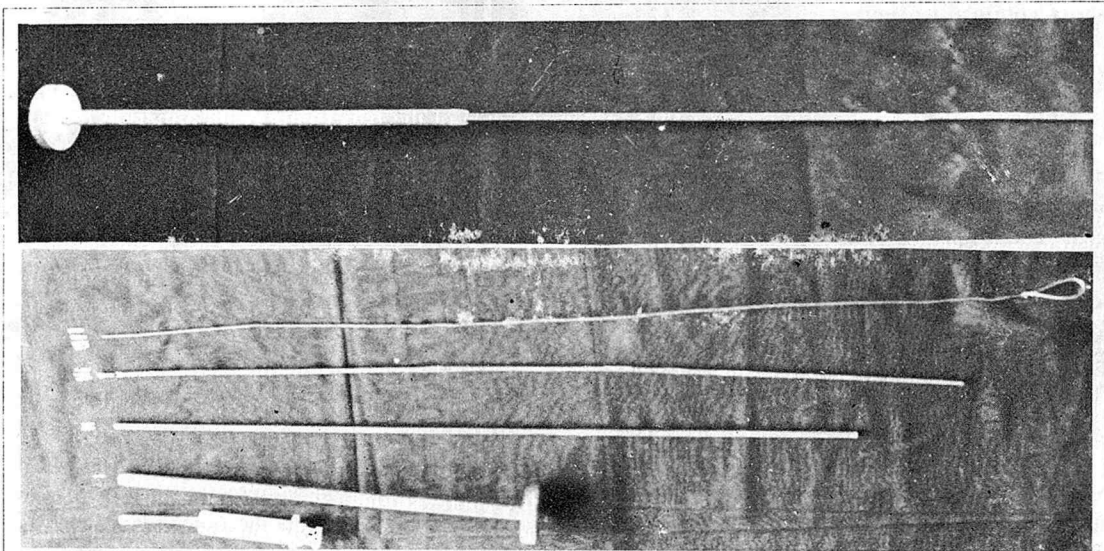


Fig.1 Instrument and its components for collection of uterine discharge

Summary

A new equipment for aseptic collection of uterine discharge was designed and used successfully.

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