

SHORT COMMUNICATION

A QUESTIONNAIRE SURVEY OF THE CORRECTION METHODS FOR VAGINAL PROLAPSE IN EWES

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Abstract

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A questionnaire on methods of replacement and retention of pre-parturient vaginal prolapse, performed by the shepherd or veterinary surgeon, was completed by 108 veterinary undergraduate students after their farm experience as lambing assistants. The retention methods routinely employed included various suture patterns (72 replies; 66.7%), a plastic intravaginal retaining device (17.6%) and a truss (15.7%). In the sutured group, Buhner perivulval sutures, purse string perivulval sutures and horizontal mattress sutures had been used in 13 per cent, 46.4 per cent and 40.6 per cent of replies respectively. While 5mm nylon tape had been used for 52 of 72 (72.2%) procedures, autoclaved suture material had been used in only 29.6 per cent of replies. No analgesia was employed prior to placing the sutures in 40 (55.6%) replies. Frequent or pronounced abdominal straining by the ewe during replacement of the vaginal prolapse was observed by 69 of 108 respondents (63.9%). On a subjective basis 20 students (18.5%) considered that the welfare consequences of the procedure were a matter of concern and a further 40 students (37.0%) judged that the welfare consequences of the procedure were poor.

Keywords: *animal welfare, sheep, vaginal prolapse*

Introduction

Vaginal prolapse is a common obstetrical disorder of multiple aetiology affecting multigravid sheep during the last month of pregnancy (Low & Sutherland 1987). As there are no specific preventive measures and vaginal prolapse occurs sporadically, the condition is controlled by replacing the prolapsed tissues and employing a means of retention. The relatively low economic value of individual sheep, and the not uncommon occurrence of vaginal prolapse, has resulted in many shepherds performing this procedure unsupervised.

The most common retention method for a vaginal prolapse employs a 5mm nylon tape suture either as some variant of a perivulval suture eg the Buhner suture (a special needle is used) or the 'purse string' suture, or as a horizontal mattress suture through the vulval labia. For details of techniques see Cox (1987). There are no reports how these procedures are undertaken or the behaviour and welfare of the ewe during such procedures. A questionnaire, completed by 108 veterinary undergraduate students, examined the method most commonly employed by the shepherd or veterinary surgeon for retention of vaginal prolapse, prior analgesia, sterility of the suture materials used and behaviour of the sheep during the

procedure. The shepherds had no prior knowledge that the technique they routinely used for replacement and retention of vaginal prolapse was to be assessed.

Materials and methods

A questionnaire on aspects of vaginal prolapse in sheep was completed by fourth and final year, veterinary undergraduate students attending the Royal (Dick) School of Veterinary Studies, Edinburgh, Scotland. The students had considerable practical experience of sheep husbandry and welfare during farm work as assistants over the lambing period, and while undertaking extramural instruction with a veterinary surgeon in large animal practice. In an attempt to standardize results with respect to the severity of vaginal prolapse, the students were asked to describe the method routinely employed by the shepherd for retention of ovine vaginal prolapse where they had worked as lambing assistants. Six farms requested veterinary attendance and these treatments were included in the results section; no distinction was made between veterinary and farmer treatments in the analyses.

The methods employed included the various suture patterns, a 'Save Ewe' intravaginal retention device and a truss. The 'Save Ewe' refers to a plastic, spatula-shaped retainer which is held firmly within the vagina by two wings which are tied to the fleece of the ewe's flanks. The suture material was classified as sterile if it had been previously autoclaved, while suture material which had been soaked in the correct dilution of an approved disinfectant was classified as 'disinfected'. The frequency of abdominal straining during replacement of the vaginal prolapse was defined as none, a little, frequent or pronounced. A cumulative assessment of the welfare of the replacement and retention procedure was based on such factors as effective analgesia, handling and restraint of the animal, care taken during cleaning and replacement of the prolapsed tissues, and behaviour of the sheep. The welfare consequences of the procedure were subjectively ranked as excellent, good, poor or a matter of concern.

Results

A suture pattern was used routinely in 72 of 108 replies (66.7%) compared to 19 replies describing 'Save Ewe' retainers (17.6%), and 17 (15.7%) of vaginal prolapses retained by means of a truss. The purse string perivulval suture pattern was used most commonly (46.4%), compared to a horizontal mattress suture through the vulval labia (40.6%) or a Buhner perivulval suture pattern (13.0%). Five millimetre umbilical nylon tape was used for 52 of 72 (72.2%) procedures. The suture material had been autoclaved in 21 reports (29.2%), disinfected in 21 (29.2%), but non-sterile suture material had been used in 30 replies (41.6%). The majority of procedures, 40 of 72 (55.6%), were conducted without any form of local or caudal analgesia. Only four students had observed caudal analgesia following sacrococcygeal epidural injection of two per cent lignocaine solution by a veterinary surgeon.

Ewes were held with the pelvic limbs raised by an assistant during replacement of the vaginal prolapse in 47 replies (43.5%), in lateral recumbency in 20.4 per cent of replies and standing in 36.1 per cent. During replacement of the vaginal prolapse abdominal straining was pronounced, frequent, a little, or not at all in 9 (8.3%), 60 (55.6%), 29 (26.9%) and 10 (9.2%) replies respectively. The welfare of the sheep during vaginal prolapse replacement was classified by the students as excellent, good, poor or a matter of concern in 3 (2.8%), 45 (41.7%), 40 (37.0%) and 20 (18.5%) replies respectively.

Discussion

The results of this questionnaire study suggest that certain techniques routinely employed for replacement and retention of ovine vaginal prolapse are inadequate and compromise the short-term welfare of the ewe. Despite the low cost and ready availability of lignocaine local anaesthetic solution, the majority of sutures used for retention of vaginal prolapse were placed without local or caudal analgesia. Unlike the subcutaneous Buhner or purse string perivulval pattern, the horizontal mattress suture penetrates the vaginal wall at four sites resulting in localized urine scalding, secondary bacterial infection and diphtheresis of the mucosa causing discomfort. Education of shepherds by their veterinary surgeon on the correct management of ovine vaginal prolapse is strongly recommended and overdue in many circumstances. The horizontal mattress suture technique should be replaced by the purse string or Buhner perivulval suture patterns. Further studies are necessary to find improved methods of analgesia during replacement and retention of ovine vaginal prolapse.

The majority of veterinary undergraduate students expressed concern over the welfare of the various methods they had observed for replacement and retention of vaginal prolapse in sheep. A questionnaire style assessment of aspects of vaginal prolapse management is open to many criticisms, such as uniformity of subjective judgements of animal behaviour and responses to painful stimuli. However, there are sufficient objective measurements in this survey to raise doubts with regard to the well-being of sheep treated for vaginal prolapse.

On the basis of this study and many years of experience in farm animal practice, the authors make the following recommendations for replacement and retention of ovine vaginal prolapse. Firstly, a sacrococcygeal epidural injection of 2ml, two per cent lignocaine solution (Harris 1991) is given five minutes before replacement of the vaginal prolapse. The prolapsed tissues are thoroughly cleaned with copious amounts of warm diluted antiseptic solution. Wherever possible the Buhner style suture pattern using sterile 5mm nylon tape should be employed. A three to five day course of broad-spectrum antibiotic may be indicated if the prolapsed tissues are traumatized. In certain situations where veterinary attendance may not be practical, shepherds must be instructed to administer 10ml of local anaesthetic solution subcutaneously five minutes before placing the perivulval purse string suture. Autoclaved 5mm nylon tape and needles must also be supplied.

Animal welfare implications

While the annual incidence of ovine vaginal prolapse varies greatly between flocks, an average one per cent incidence in the national United Kingdom flock of 20 million breeding females, would be a conservative estimate and corresponds to 200,000 ewes. If the data collected by this questionnaire are representative of United Kingdom sheep flocks, vaginal prolapse in sheep represents an important national flock and individual sheep welfare concern.

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