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Popular Article

Theloscopy and Theloresectoscopy in Bovines

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Introduction

Theloscopy is a new, minimally invasive and promising surgical procedure for teat blockage repair. The word Theloscopy was derived from Greek word which means “Teat endoscopy”. Compared to traditional procedures for diagnosis, therapy and treatment monitoring, theloscopy permits safe and effective intervention for situations with significantly less risk and annoyance to the patient (Rathod et al. 2009). The equipment consists of a small, wireless, battery operated theloscopy to inflate and to look into the teat (instruments for small surgery are also needed), rigid scope, a blow pipe and a handle. The design of the scope allows for straight insight (0°) into the teat, and has a working length of 10 cm. The scope runs in a blow pipe which has an outer diameter of 3.0 mm. Air is blown through the blow pipe into the teat cistern to dilate the teat for examination. The scope and blow pipe are attached to the handle. The handle contains a lamp, an air pump and two batteries which will power the lamp and the pump for several (Geishauser, et al. 2005).

Preparation of Teat for Theloscopy

Following initial examination of the teat canal, a rubber ring is placed around the base of the teat to prevent milk from entering the teat cistern and to reduce blood flow to the teat wall. The teat is anesthetized by injecting 5 to 10 ml of 2% lidocaine solution into a teat vein. The teat cistern is then rinsed with sterile saline through a milking tube until the draining saline is clear.

Method of Theloscopy

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Theloscopy can be performed through either the teat canal (canal theloscopy) or the lateral teat wall (lateral theloscopy). For lateral theloscopy, an opening is made in the teat wall and a slide pipe is inserted. The teat is dilated by pumping air into the teat. When theloscopy is performed through the teat canal, the teat canal and the teat cistern can be visualized in an upward direction. When theloscopy is performed through the lateral teat wall the teat cistern, the inner opening of the teat canal and the Furstenberg rosette can be visualized in a downward direction. The retrograde step with the theloscope inserted through the streak canal in direction of the annular ring and the normograde step with the theloscope inserted in the lateral teat wall in looking in the direction of the rosette of Furstenberg (Geishauser, *et al.*, 2005).

Theloresectoscopy

Theloresectoscopy is a surgical procedure that allows visualization via a theloscope and intervention via a wire snare connected to an electrosurgical unit for monopolar cutting. There are two advantages to this technique. The first is that one port is necessary to visualize and debride the lesions. The second is the use of an electrosurgical wire snare, which decreases bleeding during debridement (Couture and mulon. 2005). Video assisted Theloscopic electro resection is a promising, novel and minimally invasive technique for the surgical correction of internal obstructive lesions (Bleul *et al.* 2005). The obstructive lesions were excised at its origin in the teat cistern by simultaneous cutting at the temperature of (70-800°c) and coagulating at 80-900°c was performed using theloresectoscope.

Conclusions

For the therapy of an obstructed teat lesion, theloresectoscopy is a least invasive alternative. With little difficulty and in a short amount of time, theloresectoscopy helped restore the teat's anatomical and functional capabilities as well as its milk quality.

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