

ASSESSMENT OF DIFFERENT PAIN MANAGEMENT METHODS FOR THE TREATMENT OF CLAW LESIONS IN MEAT MERINO EWES

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Pain management during veterinary procedures is a significant component of animal welfare and has legal as well as ethical implications. Even though intravenous regional anaesthesia (RIVA) is an accepted method for painful procedures involving the distal digits of sheep, this anaesthetic technique is rarely used in the field. The primary goal was to investigate the feasibility, safety and efficacy of the RIVA in sheep. A secondary goal was to examine whether the anaesthetic procedure can be improved by combining the RIVA with sedation and whether these methods have a positive effect on postoperative wellbeing.

36 Meat Merino sheep with contagious interdigital dermatitis and 12 healthy control sheep were used. Behaviour was observed during treatment of the lame sheep using various pain management protocols and during routine claw trimming of the healthy sheep, and all the sheep were observed after the procedures. The observed behaviours were assessed using scores and the scores compared among the animals of the 4 study groups (control, RIVA, sedation with Xylazine hydrochloride + RIVA, placebo).

The RIVA was successfully conducted in sheep. Local reactions at the application sight and in the tourniquet area in two animals resolved completely. A significant reduction in defensive movements during the painful procedure confirmed the efficacy of the RIVA. Stress-associated behaviours such as head shaking and idle chewing occurred with similar frequency in RIVA- and placebo-animals, leading to the conclusion, that stress levels due to the handling in dorsal recumbency were comparable between the two groups. Sedation reduced the frequency of pain- and stress-associated behaviours such as guarding, favouring limbs, vocalisation, idle chewing and bruxism. Xylazine hydrochloride-RIVA-animals showed better weight-bearing in the affected limb, better food uptake and ruminated more postoperatively than sheep from the other treatment groups.

Concluding, the RIVA in sheep is straightforward, safe and effective. Additional sedation reduces the stress- and pain-response. This pain and stress management has a positive effect on postoperative wellbeing of sheep. However it is clear, that the investigated pain management methods are not sufficient to treat post-operative pain and need to be extended by further components.

Keywords: EWES, MERINO BREED, CLAW LESIONS, XYLAZINE HYDROHLORIDE