

## A COMPARISON OF EPIDURAL ANAESTHESIA WITH XYLAZINE, BUPIVACAINE AND BUPIVACAINE/XYLAZINE MIXTURE IN WEST AFRICA DWARF GOATS.

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### **ABSTRACT**

Epidurally administered 2% xylazine (0.5mg/kg), bupivacaine (1.7mg/kg), and bupivacaine/xylazine mixture (0.85/0.25mg/kg) were assessed in 5 West African Dwarf (WAD) goats with regard to: time to recumbency, onset of analgesia, duration of analgesia, duration of recumbency and time to standing.

Times to recumbency were found to be  $7.0 \pm 2.0$  min for xylazine,  $3.8 \pm 0.8$  min for bupivacaine and  $6.2 \pm 1.3$  min for bupivacaine/xylazine mixture. Onsets of analgesia with xylazine, bupivacaine and bupivacaine/xylazine mixture were respectively  $8.4 \pm 2.7$  min,  $10.8 \pm 3.5$  min and  $4.8 \pm 2.1$  min. Duration of analgesia was  $148.0 \pm 23.1$  min with xylazine,  $90.0 \pm 2.15$  min for bupivacaine and  $139.0 \pm 57.6$  min with bupivacaine/xylazine mixture. Duration of recumbency was  $117.0 \pm 17.2$  min with xylazine,  $174.2 \pm 62.3$  min with bupivacaine, and  $138.0 \pm 63.6$  min with bupivacaine/xylazine mixture. Times to standing were  $1.2 \pm 0.7$  min with xylazine,  $63.2 \pm 39.2$  min with bupivacaine and  $45.4 \pm 39.0$  min with bupivacaine/xylazine mixture. Lower cardiac and respiratory rates were produced by epidural xylazine and bupivacaine/xylazine mixture than by bupivacaine alone.

It was concluded that whilst prolonged recumbency makes bupivacaine unsuitable for use in the ruminant; bupivacaine/xylazine mixture seems to have no advantage over the use of xylazine alone, considering their similar duration of analgesia and cardio depressant effect. In fact, its fast recovery would appear to make xylazine a better choice.

**Keywords:**