Caustic paste disbudding is more aversive than hot-iron

Calves avoid a pen where they were with disbudded with caustic paste more than a pen where they were disbudded with a hot-iron

INTRODUCTION

• Disbudding is a common but painful procedure
• Hot-iron is the most used method, but caustic paste is also popular
• The aim of our study was to determine which method is less painful

METHODS

• Calves (n = 14) received both disbudding treatment (hot-iron and caustic paste, one horn bud at a time)
• Calves recovered from each treatment in distinct pens for 6 h
• Sedation (xylazine, 0.2 mg/kg), anesthesia (lidocaine, 5 mL) and analgesia (meloxicam 0.5 mg/kg) were provided for both treatments
• Calves were later given access to both pens; we measured how much time they spent in each pen and where they chose to lie down

RESULTS

• Calves show conditioned place aversion to where they were disbudded; this aversion shows they remember the pain and associate this with a specific location
• Calves spent less time and were less likely to lie down in the pen where they were disbudded with caustic paste; this result indicates that the hot-iron method is less painful

DISCUSSION

Take home message: Calves remembered caustic paste disbudding as more aversive than hot-iron; we recommend hot-iron disbudding with the use of sedative, local anesthesia and analgesia, or avoiding the procedure by using polled genetics

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