Anesthesia for Livestock Husbandry Procedures—An Australian Perspective

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Livestock husbandry procedures—including mulesing, castration, and tail docking—cause considerable pain and suffering yet are routinely conducted in Australia without the employment of anesthesia or analgesia. Although these procedures may be justifiable for nonhuman animal health and management reasons, there is growing consumer concern, both nationally and internationally, regarding the infliction of pain on animals. This has the potential to significantly impact Australia’s exports as consumers move to select alternative products or those from more welfare-conscious markets. This could not be more evident than in the current mulesing debate that has put the Australian wool market under intense scrutiny by international importers. The growing pressure to select wool from unmulesed sheep has led to an industry push to phase out the procedure by 2010 should a viable solution not be found.

Although the ideal long-term solution is to develop painless alternatives to such procedures, this will not happen. In the interim, the development of effective methods of pain alleviation that are practical, affordable, and applicable to farming operations is essential to reduce suffering while an alternative is pursued. Our group has been conducting studies over the past 2 years on the application of a spray-on topical anesthetic formulation, Tri-Solfen®, to the wounds inflicted by mulesing, castration, and tail docking.

We have assessed wound sensitivity using Von Frey Hair stimulation, measuring local involuntary reflexes, and central cognition. These responses were graded using a numerical rating scale. Observation of behavioral responses to pain was also conducted, along with a novel technique to assess wound healing that involved digital photography and computerized surface area measurement.

Findings indicate that the application of Tri-Solfen® to mulesing, castration, and tail docking wounds significantly reduced the pain experienced postprocedure and improved the rate of wound healing in mulesing wounds.