Changing farm practices: lamb castration

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Key message: Farmers are open to changing practice in the management of ram lambs including new castration methods or moving to systems that do not require lambs to be castrated. Being able to test new alternatives to determine their applicability to individual farm systems is a key factor in adoption.

Main Findings

- This study explored farmer perceptions of pain and the acceptability of current and alternative methods of lamb castration.
- The methods investigated were: conventional castration using a rubber ring, short scrotum castration by rubber ring, and burdizzo combined with rubber ring.
- Immuno-castration (castration vaccine) as happens in pig production was also discussed.
- During two focus groups meetings, 23 farmers were shown video clips of lambs 15 minutes post castration by the first three methods. The participating farmers were asked to identify which castration method had been used and score each according to the pain level experienced by the lambs.
- Conventional castration using rubber rings was accurately identified from the respective video clips and was rated as the most painful method in the cases shown. Burdizzo combined with rubber ring was rated as the least painful with short scrotum scoring in-between. Farmers felt that immuno-castration would cause very little, if any, pain.
- In terms of the management of pain in farm animals, participants were uncertain about the pain relieving drugs that were available to them, and specifically about licencing regulations. Farmers were unaware of some of the developments in castration methods.
- All of the non-conventional methods of castration discussed were considered to have positive features. However, farmers were concerned about their practicality, fit with existing production system, labour requirements, efficacy and, in the case of immuno-castration, public perception and human health concerns.
- The farmers wanted more information to evaluate the usefulness/viability of each non-conventional method on their farm. Specifically, they required detailed information about the cost (including the labour cost) and any growth effects associated with the castration methods.

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1 This research was undertaken within the Scottish Government Rural Affairs and the Environment Portfolio Strategic Research Programme 2011-2016, Programme 2, Theme 6.3 Improving animal welfare. For more information please see: http://www.scotland.gov.uk/Topics/Research/About/EBAR/StrategicResearch/future-research-strategy/Themes/ThemesIntro.

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Participants wanted to have the opportunity to test the non-conventional methods as a means of gaining a better understanding and building evidence of both suitability and benefits.

The best method of castration (and appropriateness of choosing not to castrate) was considered to be dependent on the production system and environment (e.g. hill or low ground).

Introduction

Castration of male lambs is a common procedure on Scottish farms to prevent unwanted pregnancies, reduce lamb behavioural problems and improve meat quality by preventing taints. The most widely used method involves the use of a rubber ring placed around the scrotum above the testes. This can cause some pain to lambs and it is widely accepted that development of less painful methods, which are robust and practical under commercial conditions, would be beneficial. Previous trials have shown that the application of burdizzos, which crush the spermatic cord, are less painful, however they have not been adopted due to additional labour requirements and concerns about efficacy. Alternatives including the use of burdizzos with rubber rings, immuno-castration and the integrated use of anaesthetics with rubber rings all show promise to provide less painful methods of castration than rubber rings alone. Understanding their applicability on commercial farms and their acceptability to farmers are key to their potential adoption.

Methods

To investigate farmer perceptions of conventional and alternative methods of lamb castration, in-depth discussions were held with two farmer focus groups in Perth and Stirling. The 23 sheep farmers who participated managed a mixture of hill, upland and lowland systems and had a variety of different breeds. A series of six video clips\(^3\), two for each of three castration methods, were shown in a randomised order. These presented a set of twin lambs with their dam 15 minutes after one lamb had been castrated. Although participants were informed of the castration methods, they did not know which had been used in the individual clips. Each participant was asked to complete a form identifying which of the two lambs had been castrated, identify the method used and score the severity of pain caused on a 1-5 scale (1 = no pain, 5 = severe pain). Reasons for castration and management of entire (uncastrated) ram lambs were then reviewed and the opportunities that the alternative methods of castration might offer were discussed.

Policy Implications

Improving the welfare of farmed animals is an important policy goal. Farmers in this study were open and willing to test less painful methods of lamb castration but few were currently doing so due to a lack of awareness about the alternatives or because they perceived them to offer no advantages. Policy support for an education programme about these alternatives thus offers an opportunity for changing farm practice and improving animal welfare. Funding opportunities might include Pillar II of the Common Agricultural Policy (CAP), for example, under the veterinary and advisory services programme. A second issue relates to evidence about alternative methods, including their efficacy, fit with existing farming systems and cost, and their farmer and public acceptability. Support for research to build this evidence base is therefore also necessary and has been funded in recent years by Government research programmes and industry. Current knowledge gaps could be funded similarly and/or with support from levy bodies or the retail sector. Finally, Government and veterinary surgeons have a role to play in the better communication of regulations on correct use of analgesics by farmers, which could improve the management of pain in farm animals.

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3 These video clips were collected as part of a parallel PhD research study on animal welfare and are also being used for Qualitative Behavioural Assessment. See also Molony, V., Kent, J.E., Viñuela-Fernández, I., Anderson, C. and Dwyer, C.M. (2012) Pain in lambs castrated at 2 days using novel smaller and tighter rubber rings without and with local anaesthetic. *The Veterinary Journal*, 193 pp. 81-86.