

Welfare of the neonate lamb immediately after tail-docking

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Introduction Tail docking of new born lambs is a routine practice in the United Kingdom. It has been used as a strategy to reduce the impact of myriasis (blowfly strike). There is only a limited period of time after birth (up to seven days) during which lambs can be docked without the use of anaesthesia. Tail docking may have a detrimental effect on the ewe-lamb bond if the process leads to significant and sustained pain. French, Wall and Morgan (1994) suggested lambs suffer acute pain immediately after the procedure of docking but this potential disturbance of normal behaviour during the first few days of life did not seem to affect the long-term performance of lambs. The study reported in this paper considers the effect of tail docking on the behaviour of lambs during the first 90 minutes after docking and on lamb performance to slaughter.

Materials and method Ten sets of twin lambs (Suffolk x Mule) were selected for the study. One lamb of each set of twins was docked at 24 hours of life (TD) using a standard rubber ring (15 mm diameter with an inside diameter of 5mm) placed over the third vertebrae from the tail head using an elastrator. The other lamb was picked up and handled for a similar duration of time as the tail docking procedure (HA). Both lambs were weighed and then returned to their mothers. The ewes and lamb groups were housed in individual pens (2.4m x 1.6m) for five days and then were housed in groups of 20 ewes and their off-spring in straw bedded yards in a pole barn. The behaviour of all lambs (lying, restless, tail-wagging, stamping, vocalisation and suckling) was scored every five minutes for a duration of 180 minutes after docking or handling. The method of scoring was based on a positive score if a behavioural change had been noted and a nil score if no change in behaviour was observed. Lambs received a positive score if lying and a negative score if standing. These observations were collated into a changing of position (restlessness) score using a positive score for standing-up and returning to a lying position. Any adverse behaviour by ewes toward lambs were recorded. All lambs were weighed fortnightly from birth to slaughter and daily live-weight gain was estimated.

Results Ewes showed no adverse behaviour toward lambs during the behaviour study. Lamb behaviour scores are in Table 1.

Table 1 Lamb behaviour (lying data are presented as proportions)

	Lying	Restless	Behaviour of lambs			
			Tailwagging	Stamping	Vocalisation	Suckling
30 minutes						
TD	0.66	1.4	1.6	0.7	1.1	0.5
HA	0.7	1	1.3	0.3	0.5*	0.9
90 minutes						
TD	0.77	2.9	3	1.1	1.5	0.9
HA	0.77	2.2	1.9	0.5	0.7*	1.7**
180 minutes						
TD	0.75	6.2	5.2	1.4	1.8	4.4
HA	0.76	5.6	3.9	0.8	0.7*	4
s.e.d.	0.05	1.68	2.45	0.55	0.18	0.32
interaction						

* $P < 0.05$, ** $P < 0.01$

No differences in the proportion of time lying were observed between lambs docked or handled. Lambs did however become more restless ($P < 0.01$) over the duration of the study but no differences between treatments were observed. Vocalisation occurred more frequently ($P < 0.05$) in lambs which had been tail docked compared with those that had been handled. The procedure of docking may have increased the incidence of stamping in lambs but the data from this study were not conclusive. The daily live-weight gain of lambs which had been handled and tail-docked were 386 and 343 g/day (s.e.d. 26.5). There was a reduction in the time to finish the lambs which had been handled compared to those tail docked (92.3 vs. 82.1 respectively, s.e.d 3.52; $P < 0.01$).

Conclusions The process of tail docking altered the behaviour of the neonate lamb significantly. Pain and distress associated with docking seems to be most acute during the first 30 minutes after the procedure but does not persist beyond the first few hours after docking. In contrast to the study of French *et al.* (1994) tail docking reduced daily live-weight gain and therefore increased time to slaughter.

Reference

French, N.P., Wall, R. and Morgan, K.L. 1994. Lamb tail docking: a controlled field study of the effects of tail amputation on health and productivity. *The Veterinary Record* **134**, 463-467.