

Association between tail injuries and docking in dogs

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A CURRENT controversy exists over the value of docking the tails of dogs. Proponents of the procedure suggest that it reduces the risk of tail injuries (Smith 1984) and that breeders' sales may be affected by not docking (Fardell 1984). Antagonists argue that docking is a barbaric practice which cannot be justified on prophylactic grounds (Edwards 1984). Few quantitative data are available to support either of these opposing opinions. A study was therefore undertaken to investigate whether docking is associated with a reduced occurrence of damage to tails.

The small animal practice teaching unit at the University of Edinburgh maintains a computerised data base of clinical case record summaries (Thrusfield and Hinxman 1981, Thrusfield 1983). This data base, which is updated daily, holds records dating back to 1965.

The numbers of docked and undocked dogs with and without tail injuries were extracted from the data base. Dogs were defined as being either docked or undocked according to normal docking practice relating to their breed. For example, all boxers were assumed to be docked and all whippets to be undocked. Tail 'injuries' included fractures, lacerations and contusions, dermatoses, self-trauma and neoplasia. A two-way classification of these figures is given in Table 1.

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TABLE 1: Presence and absence of tail injuries in docked and undocked dogs

	Tail injuries present	Tail injuries absent	Totals
Undocked	39	9474	9513
Docked	8	2608	2616
Totals	47	12082	12129

Data from Edinburgh University small animal practice teaching unit; most records relate to the period January 1977 to October 1984

The strength of association between the presence of tail injuries and an undocked tail was measured using the odds ratio. An odds ratio significantly greater than one implies a positive association between tail injuries and an undocked tail; the larger the value, the stronger the association. The odds ratio was calculated to be 1.28, with an associated 95 per cent confidence interval of (0.61, 2.69) using the 'logit' method (Plackett 1981). This interval contains 1. Thus, there is insufficient evidence, at the 5 per cent level of statistical significance, to suggest that there is a positive association between tail injuries and an undocked tail.

The calculations do not adjust for confounding by age. If some breeds are represented only by young animals then the likelihood of tail injury (except broken tails in young puppies) is less than the likelihood of tail injury in breeds that are represented by a wide spectrum of age. There are, however, no major discrepancies in the age distribution of the various breeds in the data base.

Misclassification bias may have occurred. Some dogs, classified as docked according to their breed, may not have been docked. Selection bias might also have occurred if the teaching unit's dog population was not representative of either other practices or the total dog population. The unit has a proportion of referred cases, but it is unlikely that there is a confounding relationship between tail injuries and referred problems.

Since the odds ratio is not significantly greater than one, tail docking cannot be recommended as a prophylactic procedure against tail injuries in any dog population similar to the predominantly urban one from which the teaching unit draws its cases.

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