

PRELIMINARY FINDINGS ON A POTENTIAL ASSOCIATION BETWEEN JOINT LAXITY AND FEAR-RELATED BEHAVIOUR IN THE DOMESTIC DOG

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Objectives: There is a well-described benign joint laxity disorder of the connective tissue affecting a significant proportion (14%) of the general population, which shows a positive correlation with the occurrence of anxiety related disorders, including simple phobias. The domestic dog is now recognised as a good naturalistic model for anxiety-related disorders, for it shows a variety of clinical conditions related to fear and anxiety, including social fears, noise phobias and separation anxiety. A study was designed to explore a potential association between joint laxity and fear-related behaviour in dogs.

Methods: First, joint mobility of carpus, shoulder, tarsus, hip, elbow and knee was measured in a population of 30 laboratory dogs through repeated measures under light sedation with Dexmedetomidine. Second, joint mobility was compared between 15 fearful and 16 non-fearful laboratory dogs.

Results: measurements from the carpus were the most consistent. Our preliminary results indicate increased extensibility of the carpal joint of fearful dogs versus controls (U Mann-Whitney; $p=0.156$).

Conclusions: the results of this study could suggest a similar association between joint laxity and anxiety-related behaviour as found in human beings. Further research is needed to confirm this hypothesis, which could give some insights on the biological factors and the evolutionary roots of anxiety-related disorders in humans.