Does Osgood-Schlatter Disease exist in the dog? A comment

Dear Sir,

We congratulate von Pfeil et al on their interesting review article 'Does Osgood-Schlatter Disease exist in the dog?', in which they discuss the distinction between Osgood-Schlatter disease (OSD) in young people and tibial tuberosity avulsion fracture (TTAF) in young dogs (1). The authors went on to propose a classification scheme and treatment guidelines for TTAF in dogs on the basis of eight cases seen at their institution and other small case series in the literature. Unfortunately the authors' review of the literature was incomplete, with the omission of a study on TTAF in dogs published in the Journal of Small Animal Practice July 2008 (2). In that paper we presented a review of 59 dogs with 65 TTAF presenting to an inner-city charity hospital from 2002–2007. Our paper was notable for the high incidence of these fractures occurring in terrier breeds (all but one fracture) and in particular the Staffordshire Bull Terrier (86% of affected dogs). In this breed TTAF was not a rare fracture, accounting for 3.3% of admissions in dogs less than one-year of age compared to 0.18% for other breeds.

We agree with von Pfeil et al that TTAF is generally a result of a tensile trauma, commonly occurring following a fall or awkward jump. We suggested that the Staffordshire Bull Terrier was at particular risk due to its large quadriceps mass/strength relative to the size/strength of its tibial tuberosity physis such that strong contraction of the quadriceps in combination with sudden stifle flexion (as may occur on landing from a fall) would result in TTAF. We also agree with von Pfeil et al that OSD in people should be considered a separate entity from TTAF in dogs. In none of the dogs in our series did we see evidence of new-bone formation at the insertion of the patellar tendon on the tibial tuberosity as reported in OSD. Other conclusions from von Pfeil et al's review however were not supported by our study. In the 65 fractures we reported on, three predominant fracture patterns were seen and these do not correlate with the classification system proposed by von Pfeil et al. The most common pattern was an isolated tibial tuberosity avulsion fracture with no involvement of the proximal tibial epiphysis (57% of fractures). The degree of displacement of the tibial tuberosity was variable. We also recognised TTAF in combination with variable degrees of elevation/ separation of the cranial aspect of the proximal tibial epiphysis (23%) and TTAF in combination with complete Salter-Harris type II fracture of the epiphysis, with the fracture line extending into the caudal metaphysis of the tibia (20%). In the dogs we reported on the majority of TTAF of all types occurred at four- to five-months of age, contrary to the suggestion of von Pfeil et al that certain types were seen most often in eight- to 11-month-old dogs.

We recognise of course that our results were dominated by a single medium-sized breed and that von Pfeil et al's eight cases included large breed dogs. It should not be surprising that disparate study populations yielded different results. It is clear however that some of the conclusions drawn by von Pfeil et al, and also their proposed classification scheme, are not relevant to all dogs.

Yours faithfully,

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References

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