The prevalence of subclinical lateral condylar (LC) fracture in the Thoroughbred racehorse population may be as high as 12%. Therefore, it may soon become feasible to initiate screening to detect early precatastrophic LC fracture. Ulceration palmar to the transverse ridge and fissures within the lateral parasagittal groove are associated with magnetic resonance imaging (MRI)-detected LC fracture. Authors’ addresses: Faculty of Veterinary Medicine, University of Glasgow, Glasgow, United Kingdom G61 1QH (Parkin); Faculty of Veterinary Science, University of Liverpool, Neston, Wirral, United Kingdom CH64 7TE (Morgan); Centre for Equine Studies, Animal Health Trust, Newmarket, Suffolk, United Kingdom CB8 7UU (Blunden, Tranquille, Murray); Royal Veterinary College, Hawkshead Lane, Hertfordshire, United Kingdom NW1 0TU (Swindlehurst); and Orthopaedic Research Center, Colorado State University, Fort Collins, CO 80523-1678 (Kawcak, McIlwraith); e-mail: T.Parkin@vet.gla.ac.uk. © 2008 AAEP.

1. Introduction
The objective of this study was to identify pathologies, detected either on post-mortem or magnetic resonance imaging (MRI) examination, associated with lateral condylar (LC) fracture.

2. Materials and Methods
Eighty-four limbs from 42 horses underwent post-mortem and MRI examination. Associations between fractures and pathological and MRI findings were investigated using χ² tests. The sensitivity, specificity, and positive predictive values of significant associations were calculated.

3. Results
Five (12%) of 42 horses had evidence of LC fracture on MRI examination. There was a significant association between LC fracture detected on MRI and ulceration palmar to the lateral transverse ridge (p = 0.02). Additionally, there was a significant
association between LC fracture detected on MRI and fissures in the lateral parasagittal groove (p = 0.04). The positive predictive values of these post-mortem findings for LC fracture were 23% and 20%, respectively.

4. Discussion

The reported prevalence of subclinical LC fracture may be sufficiently high to make screening for pre-catastrophic LC fracture economically viable. Although ulceration palmar to the lateral transverse ridge and the presence of a fissure in the lateral parasagittal groove were both strongly associated with the presence of subclinical LC fracture, neither type of pathology were highly predictive of LC fracture.

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