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# Some Radiological Studies on the postnatal development and Fusion of the Tuber Calcanei in Cows

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## Abstract:

This work was carried out on 6 newly born calves and 9 adult clinically healthy cows. All radiographs were evaluated for the degree of ossification of the tuber calcanei which firstly developed in a distoplantar direction then in a proximodorsal direction. The complete fusion of the tuber calcanei takes place at the age of 40 months. Using Bioscane optimus program, different measurements of the tuber calcanei and the calcaneus proper were estimated. The obtained data were tabulated and illustrated by two curves. From the anatomical point of view the structure of the tarsus is complex, and according to GREENOUGH, MACCALLUM and WEAVER (1972), the bovine tarsus is a region of clinical importance, as the tarsal joint is second only to the stifle joint in most appendicular arthritis. The tarsus of cow includes five tarsal bones, the largest one being the calcaneus which is enlarged at its proximal end to form the Tuber Calcanei or the point of hock as stated by GETTY (1975). The available references which contain information on the development and fusion time of the tuber calcanei in different animals are MACCALLUM, et al. (1978), SMALLWOOD et al. (1984) in horse and TICER (1975) in dog & cat but these references demand the informations on the development and fusion of the Tuber Calcanei in cow. The primary objective of this study was to give an accurate determination of fusion time and development of the Tuber Calcanei which is necessary to prevent confusion of fractures with the radiolucent physis.

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