Radiographic features of laminitic claws of dairy cows around Nairobi.

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Abstract

The objective of the study was to determine the common radiographic features in laminitic claws from dairy cows using abattoir samples. A total of 192 claws were collected from Wangige slaughter slab and 126 claws from Kiserian abattoir. The claws were examined for gross lesions. Dorso-palmar/ dorso-plantar and lateral radiographic exposures of each clawwere taken and evaluated for radiographic changes. Subclinical and chronic laminitis was respectively present in 35% and 21% of the claws examined and 44% of the claws showed extreme deformities. Concurrent appearance of lesions was in 27% of the claws.Radiographic changes were observed in the pedal bones but not in the adjacent joints. Dilated vascular channels (61%) and prominently visible non-dilated vascular channels (24%) in the pedal bones were observed in subclinical and chronic laminitis. The most frequently observed radiographic changes in pedal bones were: irregular (serrated) margins (14%), exostoses (8%), and narrowing (6%), complete absence (3%) or partial absence (1%) of its apex.Other changes on the pedal bones were: rotation (4%), "dropping (sinking)" (3%), fissure fractures (2%), periostitis (1%) and osteolysis (1%). Most of these radiographic changes were seen in claws that had chronic laminitis with extreme deformities. It is concluded that radiographic changes in laminitis occur during the chronic phase and are most severe when concurrent extreme deformities of the claws are present.