

8. SUMMARY

Radiographical follow-up investigation of traumatic periostitis ossificans at the equine distal limb

Periostitis ossificans can be developed only in those parts of a bone which are covered with periosteum. Therefore the periosteal situation of the distal equine limb is described and a survey of possible reasons for periostitis ossificans is given, for periostitis ossificans is the gross pathological answer of bone to a lot of reasons.

Periostitis ossificans caused by different kinds of trauma is studied radiographically, to find out, when the first periosteal reactions appear in the radiographs and how they develop.

Quantitative aspects, such as width and length of the hyperostosis are almost useless to determine the age of periosteal reaction or to predict its further development.

Qualitative characteristics as radiographical density, structure and contour should be used to classify periostitis ossificans.

Between the 5th and 24th day post trauma the periosteal reactions become visible in radiographs, but in most of the cases there are no radiographical signs before the 17th day post trauma.

Till the hyperostosis has a lower radiographical density than physiological bone, and its structure and contour are somehow indistinct or vague, it is still active and in development.

Periostitis ossificans has its maximal growth activity between 17th and 56th day post trauma.

Periosteal reactions usually become mature and inactive between 50th and 70th day post trauma and radiographical density, structure and contour are then like physiological bone. As an exception, maturity could be reached already in the 6th week post trauma.

It seems to be impossible to predict the quantitative development of active periostitis ossificans.