

## 7 Summary

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### **Incidence, frequency and clinical relevance of proximopalmar and -plantar osteochondral fragments in the fetlock-joints of horses**

As an introduction, the literature on anatomy and biomechanics of the fetlock joint is discussed. Forms of proximopalmar and proximoplantar osteochondral fragments are described. Localisation, aetiology, pathogenesis, incidence, frequency and radiographic findings are discussed in detail. For the present study the author evaluated archived records of four German equine clinics. A total of 22184 horses, whose fetlock joints were x-rayed could be taken into consideration for this study. 560 out of these horses showed a positive radiograph by the means of proximopalmar and proximoplantar osteochondral fragments. The aetiology of these fragments is discussed, taken into account the different approaches.

Correlation between radiological findings and breed, sex and age of the horses were evaluated. The result was a majority of 86,2% warmblood horses. 66,8% of all affected horses were male. The age distribution revealed that a total of 69,5% horses were under the age of four. In addition it is shown where the fragment is located in the joint and how the fragments are distributed in the different legs. The hind limbs ( 93,3%) were more often involved than the forelimbs. The medial aspect of the joint (81,8%) was more commonly affected than the lateral part. The distribution between right and left leg was balanced. There was a correlation between radiographic changes and clinical signs ascertained: 25,8% of the positive horses showed lameness, whereas only 14,4% showed a positive flexion test as well. During surgery secondary joint damage was evident in 11,9% cases. Synovialitis could be found in 14,9% cases, although some of the dissected fragments had a considerable size.

As a result it is detected that the radiographic change described in this study predominantly occurs in young horses between three and four years of age. Lameness could not always be associated with radiographic changes. Additionally a large variation in size and location of the fragment was demonstrated. Considering these findings the author makes the assumption that there are different aetiologies responsible for proximopalmar and -plantar osteochondral fragments in the fetlock joint. Thus a radiograph should never serve as the only judgement of a horses state of health.