

MORPHOLOGICAL INVESTIGATION OF PELVIC SYMPHYSIS IN ESTONIAN HOLSTEIN-FRIESIAN CATTLE

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INTRODUCTION: Knowledges on morphological changes in cattle pelvic symphysis during gestation and obstetrics gives us valuable information about the age of optimal primary calving of cows. The aim of the study was to carry out histological, histochemical and immunohistochemical investigation of pelvic symphysis in Estonian Holstein-Friesian's (EHF) cattle.

MATERIAL AND METHODS: Material from cranial part of pubic bone, pubo-ischiadic junction, symphyseal eminence and body of the interischiadic bone was taken for histological, histochemical and immunohistochemical investigation from EHF cows divided into three age groups: calves, in-calfed and after-calfed EHF's.

RESULTS: In all age groups the cranial part of pubic bone consisted of hyaline cartilage. In pubo-ischiadic junction of in-calfed cattle with gestation of 4-5 months and in after-calfed cattle group osseous tissue and hyaline cartilage were noted, meanwhile in in-calfed cattle with gestation of 7,5 months and in calves in the region fibrous cartilage and connective tissue proper prevailed. In symphyseal eminence of calves connective tissue proper and cartilage were noted; in all other groups a lot of osseous tissue was present. The region of interischiadic bone of calves consisted of a lots of connective tissue proper and fibrous cartilage, in in-calfed and after-calfed EHF's in the region hyaline type of cartilage and osseous tissue prevailed.

CONCLUSIONS: Histological, histochemical and immunohistochemical study proved that the main morphological changes in the pelvic symphysis of adult EHF kins occur during the second-half of gestation in the pubo-ischiadic junction.