Concentration of glycosaminoglycan, aldehydes and protein in synovial fluid from normal and damaged equine metacarpophalangeal joints Contenido de glicosaminoglicanos, aldehídos y proteínas en el líquido sinovial de la articulación metacarpofalángica equi

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The purpose of this study was to evaluate the influence of severity of osteoarthritis on the concentration of degradation products from the cartilage extracellular matrix on synovial fluid. Total protein and aldehyde group concentrations were determined as indicators of collagen degradation. The concentration of glycosaminoglycans (GAGs) in sinovial liquid was also determined, both the total amount (GAGsT) and the fractions corresponding to the GAGs other than hyaluronic acid or sulfated GAGs (GAGsG), that consist mostly of chondroitin and keratin sulfate. The hyaluronic acid content of the synovial fluid was calculated as the difference between the concentrations of GAGsT and GAGsS. Samples of synovial fluid were collected from metacarpophalangeal joints of crossbred equines immediatelly after slaughter, by aseptic needle aspiration and then, following post mortem joint examination, were divided into four groups: a normal group as control (n = 17) and three alterated groups, obtained