( ) R1 ( ) R2 ( ) R3 (X) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( )
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Correlation between clinical activity score, resonance magnetic image and glycosaminoglycans in Graves` ophthalmopathy.

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Purpose: The purpose of this study is to correlate clinical activity score, resonance magnetic image , urinary glycosaminoglycans and serum hyaluronic acid.

Methods : 32 patients with graves disease were enrolled in a prospective study and submitted to a clinical ophthalmologic exam , MRI, and dosage of urinary glycosaminoglycans and serum hyaluronic acid. The patients were classified according to the Clinical Activity Score (CAS) . The MRI extra ocular and white matter signal intensity on the Stir and T2 sequences were obtained of all patients. We used a microelectrophoresis technique for urinary GAGs and a fluoroassay for serum Hyaluronic acid and assessed each in 32 patients with Graves' disease, classified according to the Clinical Activity Score (CAS).RESULTS : Patients with inactive disease (CAS = 2,n=) had uGAGs (4·0 ±1·1µg/mg/creatinine) and sHA(10·7 ±7·1 µg/l) that did not differ from normal subjects (3·1 ±1·1 µg/mg/creatinine,n= and 13·9 ±9·6 µg/l,n=). In contrast, patients with active eye disease (CAS = 3, n=) had uGAGs (8·2 ±2·5 µg/mg/creatinine) and sHA (30·1 ±18·2 µg/l) 2–3 times higher than those patients with inactive eye disease. Using a cutoff of 6·1 µg/mg creatinine for uGAGs and 20·7 µ g/l for sHA we found, respectively, 85% and 81% sensitivity and 93% and 91% specificity for each test. The positive and negative predictive values were 77% and 96% for uGAGs and 71% and 95% for sHA.

CONCLUSION : Employing these methods we have established a significant relationship between the levels of uGAGs and/or sHA , MRI signal and the clinical activity of GO. Therefore, together with CAS, uGAGs determination, and, to a lesser degree, sHA, would be very useful in the discrimination from active and inactive ocular disease and aid in deciding on the best therapy for GO patients.