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1463 - Baseline Ultrasonographic Shoulder Assessment Can Predict the Functional Status in PMR Patients After Steroid Treatment

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Purpose: To evaluate the relationship between US shoulder examination and the functional status in PMR patients before and after corticosteroid treatment.

Method: 80 PMR (according to Healey criteria) consecutive outpatients were prospectively evaluated in a single secondary center for clinical and laboratory parameters at diagnosis and during CS treatment for a median follow-up of 6 months (range 4-12 m). All the patients had shoulder US examination by standardized method at the same times. The clinical assessments included the core set parameters considered in EULAR response criteria and the Health Assessment Questionnaire (HAQ). Leeb's disease activity score were calculated at each visit. HAQ value of 42 PMR age matched patients during disease remission were used as controls. Chi square test was used to calculate differences between groups.

Results: 79 patients (F60pts/M19pts, mean age 75 ± 7 y, mean disease duration 15 ± 27 wks) completed the study. Pretreatment mean values were : ESR 55 ± 22.5 mm/1st h, CRP 4.2 ± 3.25 mg/dl, pain VAS 73 ± 18 mm, patient VAS 70 ± 7 mm, physician VAS 66 ± 8 , HAQ 1.79 ± 0.47 , morning stiffness 172 ± 118 min, Leeb's DAS 36.5 ± 14.6 . Baseline US examination showed bilateral bursal distension in 57% of the pts, bilateral involvement of long head biceps tendon in 71%, bilateral gleno-humeral distension in 15%. After CS treatment HAQ score and US signs of shoulder inflammation were significantly reduced ($p=0.021$ and $p=0.001$ respectively). Patients with HAQ values below the median value of controls (0.25) were considered as HAQ responders. Comparing HAQ responders vs HAQ non-responders we found that female sex (OR 6.65, 95%CI 1.96-22.5), presence of peripheral joint involvement (OR 3.1, 95%CI 1-9.64), US presence at baseline of bilateral bursal and glenohumeral distension (OR 2.76, 95%CI 1.1-6.96 and 4.36, 95%CI 0.97-21.7 respectively) and presence of sopraspinatus tendon lesion (OR 3.46, 95%CI 1-12) were correlated with reduced functionality at 6 month examination. At the time of the second US examination there was a significant correlation between the number inflamed shoulder structure at US and the HAQ value (Spearman=0.419, $p<0.001$).

Conclusion: US examination is a useful tool to recognize PMR patients with reduced functionality after CS treatment.

Keywords: Health Assessment Questionnaire, polymyalgia rheumatica and ultrasound

Disclosure: **P. Macchioni**, None; **M. Catanoso**, None; **L. Boiardi**, None; **I. Modesto**, None; **C. Salvarani**, None.
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