SUCCESSFUL EVALUATION OF A PREDEFINED SET OF ANATOMIC SITES IN THE PELVIS OF PATIENTS WITH POLYMYALGIA RHEUMATICA SHOWING EXTRACAPSULAR INFLAMMATION AS VISUALIZED BY CONTRAST ENHANCED MAGNETIC RESONANCE IMAGING:

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BACKGROUND: The diagnosis of polymyalgia rheumatica (PMR) is based on a thorough clinical evaluation of the patient - including exclusion of other diseases, since there is no decisive diagnostic test. A characteristic pattern of extracapsular inflammation in the pelvis of patients with PMR as assessed by contrast enhanced magnetic resonance imaging (MRI) has been recently described (1) 

OBJECTIVES: To evaluate the performance of a predefined set of anatomic sites in the pelvis of patients with PMR vs. controls.

METHODS: A total of 120 pelvic MRI scans of patients who had presented to our tertiary center with pelvic girdle pain in the last 5 years, including 40 patients with an expert rheumatologist diagnosis of PMR and 80 controls with other reasons of pelvic pain was evaluated by 3 radiologists blinded to clinical diagnosis and patient demographics. The experts scored the presence or absence of contrast enhancement at 19 predefined tendinous and capsular pelvic structures. Different patterns of involvement were compared and statistically evaluated by ROC analysis. Kappa statistics were applied to calculate inter- and intrareader agreement. 

RESULTS: Mostly bilateral peritendinitis and capsulitis including uncommon sites such as the proximal origins of the muscles rectus femoris and adductor longus were found almost exclusively and, thus, typically in PMR patients: the difference in the mean number of sites showing contrast enhancement was significantly different with 13.4±2.7 for PMR vs. 4.0±2.3 for controls. A cut-off of ≥ 10 inflamed sites discriminated very well between the groups resulting in a sensitivity and specificity of 95.8% and 97.1%, respectively. Just concentrating on the most frequently involved anatomic sites bilateral inflammation of proximal M. rectus femoris or adductor longus tendons together with at least 3 other bilaterally inflamed sites performed even better with a sensitivity and specificity of 100% and 97.5%, respectively.

CONCLUSION: This study strongly confirms that the previously described pattern of extracapsular pelvic inflammation as assessed by contrast enhanced MRI is very typical for patients with PMR. In addition, the high sensitivity and specificity of the set of anatomic sites evaluated suggest their definite potential for use as a confirmatory diagnostic test.

REFERENCE:

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The benefits of involving patients in health technology assessment