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论著

灰阶联合能量多普勒超声在评价早期类风湿关节炎骨侵蚀及疾病活动度中的应用价值

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摘要:

目的：采用灰阶联合能量多普勒超声（PDUS）评价早期类风湿关节炎（RA）患者骨侵蚀，探讨其敏感性并评价其在疾病活动度中的应用价值。方法：使用高频灰阶超声联合PDUS对56例早期RA患者进行骨侵蚀评价及滑膜炎评分，并同时测定临床及实验室指标，包括28 个关节的疾病活动度评分（DAS28）、红细胞沉降率（eSR）、C-反应蛋白（CRP）、健康调查问卷（HAQ）。对其中20例患者进行手腕X线及MRI增强扫描。结果：超声发现骨侵蚀是X线检查5.7倍，与MRI检查基本相符（91.5%）。与体格检查相比，超声检出滑膜炎的关节数是体格检查1.6倍，与MRI检查基本一致（95.7%）。PDuS活动性滑膜炎关节计数及关节指数评分与DAS28、血沉、C-反应蛋白呈正相关，与HAQ无显著性相关。结论：灰阶联合PDUS是评价早期RA患者骨侵蚀及疾病活动度的敏感及可靠指标。

关键词： 类风湿性关节炎 疾病活动度 超声 能量多普勒 骨侵蚀

Grey scale and power Doppler ultrasonographic assessment of bone erosion and disease activity in early rheumatoid arthritis

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Abstract:

Objective: To evaluate the sensitivity and predictive value of grey scale and power Doppler ultrasound assessment of bone erosionin disease activity in patients with early rheumatoid arthritis (RA). Methods: Fifty-six patients with early RA underwent blinded sequential clinical, laboratory and ultrasound assessments, and at the same time 20 of these patients underwent X-ray and enhanced MRI. For each patient, 28-joint disease activity score (DAS28), erythrocyte sedimentation rate (ESR), C reactive protein (CRP) and health assessment questionnaire (HAQ) were recorded. The presence of bone erosion and synovitis was investigated in 28 joints by gray-scale and power Doppler ultrasonography. The ultrasound joint count and index for active synovitis with power Doppler signal were calculated. Results: The number of bone erosions detected by ultrasonography was 5.7 times that of X-ray, while both MRI and ultrasonography were consistent (91.5%). The number of synovitis detected by ultrasonography was 1.6 times as much as by physical examination, and consistent MRI (95.7%). PDUS parameters demonstrated a highly significant correlation with DAS28, ESR and CRP, while a negative correlation with HA Q. Conclusion: Grey scale and power Doppler ultrasonography is a sensitive and reliable method to assess bone erosion and inflammatory activity in early RA. PDUS findings may have a predictive value in disease activity.

Keywords: rheumatoid arthritis disease activity ultrasonography power Doppler erosion

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