中国医学影像技术
CHINESE JOURNAL OF MEDICAL IMAGING TECHNOLOGY

郭智萍,张旭静,朱瑾,袁军辉,李石玲,马晓晖,赵建.3.0T磁共振T2* mapping成像诊断腰椎间盘退变[J].中国医学影像技术,2013,29(11):1849~1852

3.0T磁共振T2* mapping成像诊断腰椎间盘退变

T2* mapping in assessing intervertebral discs degeneration at 3.0 T MR system

投稿时间： 2013-05-20 最后修改时间： 2013-07-31

DOI：

中文关键词：磁共振成像 腰椎 椎间盘 退变

英文关键词：Magnetic resonance imaging Lumbar Interveterbral disc Degeneration

基金项目：河北省自然科学基金(C2011206153)。

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中文摘要：

目的 评价T2* mapping成像技术在诊断腰椎间盘退变中的临床应用价值。方法 对12例下腰痛患者(症状组)及12名无症状志愿者 (对照组)行腰椎间盘MR扫描,在L_1-S_1共120个椎间盘ROI,测量相应的T2*值,并按Pfirrmann标准对常规 T2WI显示的椎间盘进行分级,分析并比较症状组和对照组腰椎间盘内T2*值的差异,对T2*值与椎间盘分级间的相关性采用*Spearman*相关析。结果 症状组椎间盘Pfirrmann分级平均得分高于对照组(t=5.04,P<0.05)。症状组腰椎间盘平均T2*值为(76.90±33.10)ms,低于对照组[(116.00±71.60)ms,P<0.05]。症状组和对照组T2*与Pfirrmann分级呈负相关(r=-0.84、-0.76,P均<0.05)。结论 T2* mapping成像技术能为影像学量化诊断腰椎间盘退变提供依据。

英文摘要：

Objective To assess the clinical value of T2* mapping technique in evaluating intervertebral disc degeneration in patients with low back pain. **Methods** MRI was performed on 12 patients with lo back pain (symptomatic group) and 12 symptom-free volunteers (control group). ROIs were set and T2* values were measured in 120 intervertebral discs of L_1-S_1. Pfirrmann grading was performed i T2WI. T2* values of different interveterbal discs were compared between the two groups. The correlation between T2* value and Pfirrmann grading of interveterbral discs was tested by *Spearman* an **Results** The average Pfirrmann grading of symptomatic group was significantly higher than that of control group (t=5.04, P<0.05). The average T2* value of interveterbral discs in symptomatic group (76.90±33.10)ms, obviously lower than that of control group ([116.00±71.60]ms, P<0.05). Negative correlation was found between T2* value and Pfirrmann grading both in symptomatic group (r= P<0.05) and control group (r=-0.76, P<0.05). **Conclusion** T2* mapping technique could provide evidences for quantitative assessment of interveterbral disc degeneration in patients with low back pa

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