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MR DWI在淋巴瘤检出、疗效监测中的应用

Application of MR DWI in detection and therapeutic monitoring of lymphoma

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中文关键词： 淋巴瘤 磁共振成像 表观扩散系数 治疗结果

英文关键词:Lymphoma Magnetic resonance imaging Apparent diffusion coefficient Treatment outcome

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中文摘要：

目的 探讨常规MRI及扩散加权成像(DWI)在淋巴瘤检出、疗效监测及预测中的应用价值。**方法** 18例接受化疗的系统性淋巴瘤患者,于化疗前和化疗1~2个疗程后分别接受常规MR平扫及DWI。比较治疗前淋巴瘤病变在T2WI压脂图和DWI上的图像质量,测量治疗前、后病变在轴位T2WI上的最大径。按疗效分为3组:部分缓解(PR)组、稳定(SD)组和进展(PD)组,分析各疗效组病变治疗前、后T2WI信号强度及ADC值差异。**结果** 治疗前淋巴瘤病变在DWI上的对比噪声比高于T2WI压脂图(P=0.01)。PR组治疗后ADC值明显升高(P<0.001),T2WI信号强度减低(P<0.001)。SD组治疗后ADC值升高(P<0.001),而T2WI信号强度无显著减低。PR组治疗前ADC值与SD组间差异无统计学意义,但PR组治疗前、后ADC值的变化率明显高于SD组(P<0.05)。**结论** DWI在淋巴瘤检出及疗效监测中较T2WI更为敏感。淋巴瘤治疗前、后ADC值变化率有助于疗效监测,而治疗前ADC值在预测疗效方面未显示出明显价值。

英文摘要：

Objective To investigate the clinical value of conventional MRI and DWI in detection, response monitoring and prediction of lymphoma. **Methods** Eighteen patients with systemic lymphoma underwent conventional MR and DWI examinations before and after 1—2 cycles of chemotherapy. The image quality of pre-treatment lymphoma on T2WI with fat suppression and DWI was compared. The longest diameter of lesion before and after treatment was measured on axial T2WI and compared. The T2WI signal intensity and ADC value of each group (partial response , stable disease , progressive disease) before and after treatment were compared. **Results** The contrast to noise ratio of pre-treatment lymphoma on DWI was higher than T2WI with fat suppression (P=0.01). In PR group, the ADC value of pre-treatment lesion was lower than that of post-treatment lesion (P<0.001), and the T2WI signal intensity of pre-treatment lesion was higher than that of post-treatment lesion (P<0.001). In SD group, the ADC value of pre-treatment lesion was lower than that of post-treatment lesion (P<0.001), but the T2WI signal intensity of pre-treatment lesion did not show statistical difference with that of post-treatment lesion. The pre-treatment ADC value of PR group had no significant difference with SD group, however, the percentage ADC change of PR group was higher than that of SD group (P<0.05). **Conclusion** DWI is more sensitive than conventional MRI in detection and therapeutic monitoring of lymphoma. The percentage ADC change of lymphoma lesion is useful in response evaluation, while the pre-treatment ADC value didn't show significant value in prediction of therapy response.

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