Comparison of MR-DWI and 64 slice CT in diagnosis and treatment of acute ischemic stroke

LI Jian-bin, GUI Dan
(Department of Radiology, People's Hospital of Kaixian, Kaixian 405400, China)

[Foundation Project]: It is supported by Education Department of Sichuan Province (12ZA060).
[Author]: LI Jian-bin (1973~), Male, Kaixian Chongqing, Attending Physician, M. B., Tel: 13896384586, Email: lijianbing@163.com.

Received: 2015-01-27 Revised: 2015-02-19 JHMC, 2015; 21(6): 838-840

View from specialist: It is creative and of certain scientific and educational value.

[ABSTRACT]: Objective: To compare the application of MR-DWI and 64 slice CT in diagnosis and treatment of acute ischemic stroke. Methods: A total of 158 patients with acute ischemic stroke were selected, who all underwent brain MR-DWI and 64 slice CT pre-or-post thrombolytic therapy. Imaging parameter (ADC, CBF, CBV, TTP) were compared between lesions and the contralateral. AIS diagnostic efficiency (AUC) was evaluated. Results: MR-DWI showed middle cerebral artery and internal carotid artery vascular obstruction, brain ischemic lesion, 64 slice spiral CT showed acute brain basal ganglia ischemia lesion; average ADC ischemic lesions, CBF and CBV value significantly decreased, TTP increased obviously, compared by the contralateral region with statistical significantly difference (P<0.05). After thrombolysis therapy, average ADC value, CBF and CBV of survival group were significantly higher than death group, TTP was significantly lower than death group (P<0.05), AUC value of MR-DWI in AIS diagnosis was 0.812, significantly higher than 64 slice CT (0.705) (P<0.05). Conclusions: MR-DWI and 64 slice spiral CT can accurately assess acute ischemic stroke lesion and thrombolytic therapy effect, but MR-DWI has higher diagnostic value.

[KEY WORDS] MR-DWI; 64 slice CT; Acute ischemic stroke