Vessel wall characteristics using high-resolution magnetic resonance imaging in reversible cerebral vasospasm and central nervous system vasculitis

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Introduction. – Distinguishing between reversible cerebral vasospasm (RCVS) and central nervous system (CNS) vasculitis is often a diagnostic dilemma. High-resolution-3-Tesla Magnetic Resonance Imaging with contrast (HR-MRI) is a non-invasive method which has an added value to the vascular imaging by defining the intracranial vessel wall characteristics (enhancement and thickening). We have explored the utility of HR-MRI in distinguishing RCVS from CNS vasculitis.

Methods. – A retrospective analysis of all patients with a diagnosis of RCVS or CNS vasculitis that underwent HR-MRI at our institution was performed. Inclusion criteria for RCVS included acute thunderclap headache with no aneurysmal subarachnoid hemorrhage, normal cerebrospinal fluid and reversible multifocal intracranial vessel stenosis [1]. The CNS vasculitis group included patients with primary CNS vasculitis diagnosed according to the Calabrese criteria [2] in addition to one patient with Varicella Zoster CNS vasculitis. Images were reviewed by two radiologists. Demographics, clinical presentation, laboratory testing, imaging studies and outcomes were collected.

Results. – Twenty-six patients met inclusion criteria with 13 patients in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. Median age was 52 and 42 in the RCVS and the vasculitis groups respectively. Females represented the majority in each group. 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