

Reversible Cerebral Vasoconstriction Syndrome at Emergency Department

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Abstract : Object: Reversible cerebral vasospasm syndrome (RCVS) remains an underrated cause of thunderclap headache which shares similar history of the 'worst-ever' headache with subarachnoid hemorrhage (SAH) to the emergency physicians. This study evaluated the clinical manifestations, radiological features, and outcomes of patients with RCVS so that the physicians could raise the high index of suspicion to detect RCVS in more patients with thunderclap headache before having life-threatening complications. Methods: The electric medical records of 18 patients with diagnostic criteria of RCVS at the emergency department (ED) between January 2013 and December 2014 were retrospective reviewed. Results: The mean age was 50.7 years, and 80% were women. Patients with RCVS visit an average of 4.7 physicians before receiving an accurate diagnosis and mean duration of symptom until diagnosis is 9.3 days. All patients except one experienced severe headache, from 8 to 10 pain intensity on a numerical rating scale (NRS). 44% of patients had nausea as an associated symptom, 66% of patients experienced worsening of headache while gagging, leaning forward, defecating, urinating or having sex. The most frequently affected vessels are middle cerebral arteries demonstrating the characteristic diffuse "string of beads" appearance. Four patients had SAH as a complication. Conclusion: Patients with RCVS have a unique set of clinical and imaging features. Emergency physicians should raise the high index of suspicion to detect RCVS in more patients with thunderclap headache before life-threatening complications.

Keywords : headache, thunderclap, subarachnoid haemorrhage, stroke

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