Thunderclap headache as a presentation of spontaneous spinal epidural hematoma with spontaneous recovery

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Introduction: Spontaneous spinal epidural hematoma (SSEH) is a rare spinal cord disorder. Thunderclap headache mimicking subarachnoid haemorrhage as an initial manifestation of this condition has been very rarely reported. Moreover these limited literature cases report headache is usually associated with neurological symptoms and signs of spinal cord involvement and compression, even if the latest ones generally occur later in comparison with cranial pain symptoms. A case of SSEH exclusively presenting with acute onset severe headache that completely mimicked subarachnoid haemorrhage, not accompanied nor followed from any neurological deficit, is reported.

Case Report: A 48-year-old Asiatic woman presented with sudden onset occipital headache, neck stiffness, discomfort, nausea and vomiting for which subarachnoid haemorrhage was initially suspected. Clinical examination revealed an alert woman with minimal nuchal rigidity. An emergency cranial computer tomography and vessel cranial angio-CT were normal. Lumbar puncture revealed a subarachnoid bleed. Magnetic resonance imaging showed a spinal epidural hematoma located in antero-lateral position to D1 through D7 vertebrae. Dorsal spinal angiogram carried out with selective injection from D5 to D12 levels didn’t provide any evidence of vascular malformations nor other relevant condition were detected. Headache condition slowly improved along three-four weeks. None neurological symptom nor sign of spinal cord involvement developed therefore a conservative approach was planned. A follow-up MRI carried out five days later documented a significant improvement of neuroimaging picture. A complete clinical recovery was obtained.

Discussion: The present case confirms that SSEH can sometimes imitate subarachnoid hemorrhage presentation. Moreover it provides the evidence that isolated thunderclap headache can represent the only clinical manifestation of this condition; such an evidence emphasises the need of an accurate and extensive diagnostic depistage in all thunderclap headache patients including not only traditional procedures aiming to exclude intracranial source of bleeding, but also a more extensive study of CNS.