

Cerebral Venous Thrombosis at High Altitude: A Rare Presentation by Sub-Arachnoid Hemorrhage

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Abstract : Introduction: Cerebral venous thrombosis (CVT) is a rare type of cerebrovascular disease that can occur at any age. Patients with CVT commonly present with headache, focal neurological deficit, decreased level of consciousness and seizures. Many etiologic risk factors have been reported for CVT, high altitude and oral contraceptive pill some of them. Case Presentation: A 37-year-old woman living in Abha city in the southeastern area of Saudi Arabia. (about 10,000 feet-3000 m) over the sea. complaining acute onset of severe diffuse headache and generalized tonic clonic convulsions. Followed by loss of consciousness. She was on contraceptive pills for the last 3 years. No significant Medical or surgical history. Brain CT revealed subarachnoid hemorrhage, with MRI findings showing thrombosis in transvers sinus. There was no vascular malformations such as aneurysm, arteriovenous malformation (AVM), or dural arteriovenous fistula. A CVT with subarachnoid hemorrhage was our final diagnosis based on clinical presentation and radiographic findings. Discussion: Patients with CVT had evidence of cortical SAH by 10 of 233, others found 3% of SAH was caused by CVT, indicating that the presence of cortical SAH without involvement of the basal cisterns may provide an early sign of underlying CVT. However, what is more interesting in this case, is the relationship of high altitude with CVT and SAH, which previously undescribed. Conclusion: High-altitude climbing per se was described as a risk factor for the development of CVT, though its occurrence was probably rare. Whether it is primary in etiology due to high altitude induced hypercoagulable state of unknown origin or due to cerebrovascular disturbances there is a need for further investigation especially at this unusual presentation of subarachnoid hemorrhage.

Keywords : cerebral venous thrombosis, high-altitude, subarachnoid hemorrhage, stroke

Conference Title : ICNN 2016 : International Conference on Neurology and Neurosurgery

Conference Location : Jeddah, Saudi Arabia

Conference Dates : January 26-27, 2016