PAEDIATRIC STROKE IN 2 YEAR-OLD GIRL- A RARE CASE OF MOYAMOYA DISEASE WITH MENINGIOMA  
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ABSTRACT

***Introduction.*** Moyamoya disease is a rare progressive cerebral vasculopathy that may affect both children and adult. However, presentation during infancy is extremely uncommon. We report a case of a 2-year-old girl who was diagnosed with Moyamoya disease with an incidental findings of meningioma.

***Case.*** A 2-year-old girl with no relevant medical history presented with sudden onset of right-sided body weakness. The child has no syndromic features, but café-au-lait lesion noted over left lumbar region and right upper limb. On examination, her Glasgow Coma Scale (GCS) was 15/15 with normal tone bilaterally and muscle power of 3/5 over the right side of the body. Reflexes were normal bilaterally, clonus absent and Babinski downgoing. Her cranial nerve and cerebellar examinations were unremarkable. The CT brain plain showed hypodensity on left frontal lobe with sulci effacement. MRI and MRA brain revealed a left frontal lobe recent infarct, left parietal old infarct, bilateral supraclinoid ICA (internal carotid artery) stenosis with multiple collateral vessels (Moyamoya disease Suzuki-stage 3) and incidental findings of right temporal lesion-meningioma. Parents were not keen on surgical intervention for meningioma hence treated conservatively. Child was started on daily aspirin, given USG carotid outpatient and continued on regular physiotherapy. Subsequent follow-up showed child improves with rehabilitation.

***Discussion***. Moyamoya disease causes the Circle of Willis vessels to become progressively occlusive and eventually lead to ischemic stroke. The fragile collateral vessels may cause hemorrhagic stroke. It affects females twice than males. It is a leading cause of stroke in children which peaked at 5 to 9 years old1.

The coexistence of Moyamoya vessels with meningioma is rarely reported. The possible etiology are genetics, syndromes and neoplasia. Meningioma that coexists with Moyamoya disease might suggests a neurofibromatosis type II2.

In paediatric population, stroke can be misdiagnosed as vasculitis, space occupying lesion or intracranial bleed. The misdiagnosis might cause a delay to treatment. Hence a thorough patient history, clinical examination and immediate neuroimaging is vital.

***Conclusion.*** This case is interesting because this is one of the youngest child found to have Moyamoya disease with meningioma. Early diagnosis and treatment are crucial to prevent irreversible complications and to improve child’s quality of life.

***Keywords:*** magnetic resonance angiography; moyamoya; meningioma; stroke.  
  
References:

1. Moyamoya disease: a summary. Burke GM, Burke AM, Sherma AK, Hurley MC, Batjer HH, Bendok BR.Neurosurg Focus. 2009 Apr; 26(4):E11.
2. MOYAMOYA DISEASE IN A PATIENT WITH BRAIN TUMOR: CASE REPORT. Lidija Dežmalj-Grbelja, Jelena Bošnjak, Arijana Lovrenčić-Huzjan, Marija Ivica and Vida Demarin. Acta Clin Croat 2010; 49:459-463.