New onset neurological deficit after ventriculo-peritoneal shunt placement in a patient with moyamoya disease: management strategies, communication and disclosure

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INTRODUCTION

Moyamoya disease (MMD) is a chronic, progressive cerebrovascular disease characterized by stenosis or occlusion of the bilateral internal carotid arteries along with development of leptomeningeal collaterals at the base of the brain. Headache is common and difficult to treat before surgery and/or after indirect revascularization. It is considered to be a kind of migraine or to be derived from changes in cerebral blood flow after indirect revascularization. We report hemiplegia as rare complication of VP shunt placement to control intractable headache.

CASE DESCRIPTION

- Upon awakening after CT scan, neurological examination revealed left hemiplegia consistent with acute hemorrhage evident on CT scan.
- Was the hemorrhage related to Moyamoya disease progression during anesthesia or was it a surgical complication?
- Stroke protocol was activated and an MRI/MRA revealed multiple tracts into the right internal capsule from VP shunt attempts.
- Unfortunately, technical difficulty during VP shunt placement was not communicated during the procedure to anesthesiology team that would have changed anesthetic to assess the neurologic function sooner in the recovery room.

DISCUSSION

- The unfortunate outcome of this case necessitates reflection on management and communication among team members taking care of Moyamoya disease undergoing subsequent procedures after indirect revascularization.
- Management of headache is very complex in this patient population.
- Also disclosure of unanticipated outcomes is a very daunting experience especially if the complication is anticipated to be permanent such as in our case.
- Diligence and continuous communication with all members of the surgical team is a must during any procedure but even more so in procedures for labile disease such as in patients post Moyamoya revascularization.

REFERENCES