Management of Cerebral Vasculopathy in Pediatric Sickle Cell Disease, A Retrospective Study

Children with sickle cell disease (SCD) are at high risk for developing strokes and disorders of cerebral blood vessels or cerebral vasculopathy. Medical measures to decrease the hemoglobin S content of patients with SCD has been shown to decrease but not eliminate the risk of stroke. Furthermore, SCD patients with cerebral vasculopathy are at increased risk for stroke, despite best medical management. Cerebral revascularization procedures are established surgical interventions that decrease the risk of ischemic stroke in other cerebrovascular diseases and are being utilized in SCD. While preliminary studies have shown that these interventions can possibly reduce the risk of stroke in pediatric SCD, the true effects of such interventions need to be determined with well designed, systematic studies.

The long term goals of this study are to help determine alternate risk factors of stroke in patients with sickle cell disease. Additionally the information learned will facilitate additional opportunities to assess the impact of vasculopathy and cerebral revascularization for cerebral ischemia and aneurysm obliteration for aneurysmal hemorrhage.

The medical student’s role would be chart review, data collection and data analysis.