

Project title:

MANAGEMENT OF CEREBRAL VASCULOPATHY IN PEDIATRIC SICKLE CELL DISEASE, A
RETROSPECTIVE STUDY

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Research Project Description

Abstract:

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.

Specific Aims:

To examine the rates of detection of cerebral vasculopathy using systematic screening of patients identified to be high risk for stroke in SCD. To characterize the development and natural history of cerebral vasculopathy in SCD. To confirm the rates of stroke in patients with cerebral vasculopathy in SCD. To determine the role of cerebral revascularization procedures in the management of patients with sickle cell disease and cerebral vasculopathy.