

Stroke Prevention Trial in Sickle Cell Anemia

The Stroke Prevention Trial in Sickle Cell Anemia (STOP) was a randomized trial to evaluate whether chronic transfusion could prevent initial stroke in children with sickle-cell anemia at high risk as determined by transcranial Doppler (TCD). The trial demonstrated a large benefit of transfusion and was halted early.

[Moyamoya syndrome](#) increases the risk of stroke in [sickle cell disease](#), but [revascularization](#) surgery can modify this risk. Collaborative management between hematology and neurosurgery offers effective strategies to reduce stroke risk in these patients. Slingerland et al. described a challenging case where a patient with sickle cell disease undergoing standard of care management as prescribed by the [Stroke Prevention Trial in Sickle Cell Anemia](#) (STOP) and [revascularization](#) with [pial synangiosis](#) subsequently developed rapidly progressive disease in other cerebral vessels and suffered ischemic hemispheric stroke. This case demonstrates the success of management in accordance with [American Heart Association](#) (AHA) and [American Stroke Association](#) (ASA) guidelines, but also demonstrates critical areas where we lack understanding of disease progression ¹⁾.

¹⁾

Slingerland AL, Karsten MB, Smith ER, Sobota AE, See AP. Two Sides of a Coin: Case Report of Unilateral Synangiosis and Contralateral Stroke Highlighting Consequences of Disease Progression and Efficacy of Revascularization in Sickle Cell Disease Associated Moyamoya Syndrome. Acta Haematol. 2021 Dec 8. doi: 10.1159/000521361. Epub ahead of print. PMID: 34879377.

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