

Direct Mechanical Thrombectomy with Thromboaspiration in Cerebral Venous Sinus Thrombosis

Sir,

Cerebral venous sinus thrombosis (CVT) accounts for 0.5%–1% of all stroke cases.^[1] Stroke registry in India reported 1.22% of strokes to be due to CVT. It is commonly seen in young female in peripartum period.^[2] The etiological factors include pregnancy, dehydration, use of oral contraceptive pills or other drugs, infections, prothrombotic states, hematological disorders, and connective tissue disorders.^[1] Most common clinical features are headache and seizures.^[3,4] Diplopia, papilledema, and motor deficits such as mono or hemiparesis are frequent findings.^[1] Systemic anticoagulation using conventional or low molecular weight heparin is the mainstay of treatment.^[1] About 9%–13% of patients deteriorate on anticoagulation and direct catheter-guided thrombolysis or mechanical thrombectomy is preferred treatment modality in such cases.^[1,5]

A 25-year-old postpartum female and a 35-year-old female on treatment for polycystic ovarian disease, presented with recent onset headache followed by left hemiparesis. Second patient also had generalized tonic-clonic seizure. Both had superior sagittal sinus (SSS) thrombosis and were worsening on heparin, clinically as well as on imaging. As patients were worsening on anticoagulation, endovascular intervention was considered. After femoral venous access, 7F guiding catheter was negotiated into right internal jugular vein. Diagnostic venous angiogram confirmed venous sinus occlusion, 6F distal access catheter (DAC) catheter was negotiated into the sinus, maceration of clot was done with the same catheter and with to-and-fro movements of 035 Terumo wire followed by aspiration of clot. Postprocedure angiogram showed good recanalization of SSS in both [Figure 1a-d].

Both the patients had significant clinical improvement over the next 2–3 days and modified Rankin Scale at 3 months is 1.

We report two cases where emergent restoration of sinus patency was done with the use of DAC catheter only. In the process, we avoided the possible adverse effect that may arise out of use of urokinase as well as made the procedure cost-effective by reducing the use of additional device with equally effective outcome. To the best of our knowledge, this is first such report from the subcontinent.

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Nil.

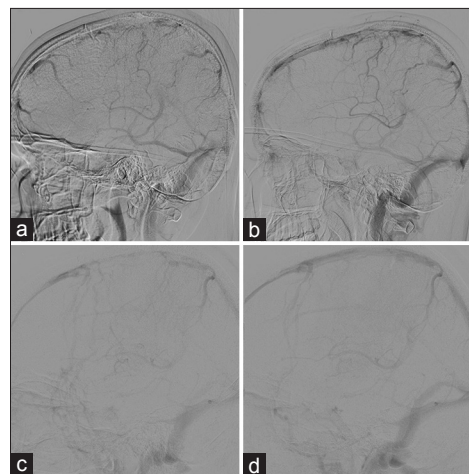


Figure 1: Patient 1 preaspiration venogram (a) showing nonopacification of mid and posterior third of superior sagittal sinus and postaspiration venogram, (b) showing recanalization of superior sagittal sinus. Patient 2 preaspiration venogram, (c) shows filling defect in mid-superior sagittal sinus and postaspiration venogram, (d) shows full recanalization. Both preaspiration venograms show prominent hanging veins and resolved in postaspiration images

Conflicts of interest

There are no conflicts of interest.

Vikram Bohra, Romnesh deSouza, Vivek Karan, Vikram Huded

Department of Interventional Neurology and Stroke, NH Institute of Neurosciences, Bengaluru, Karnataka, India

Address for correspondence: Dr. Vikram Huded,
Department of Interventional Neurology and Stroke,
NH Institute of Neurosciences, NH Health City, 258/A,
Bommasandra Industrial Area, Hosur Road, Bengaluru,
Karnataka, India.
E-mail: drvikramhuded@gmail.com

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