

Discussion This case presented a significant diagnostic challenge to our team as the VVM possessed numerous idiosyncratic features prevalent in cases of dermoid cysts, with simultaneous findings that are contraindicative of most venous malformations. The regression of the VVM during the patient's pregnancy was counterintuitive to expectation, as endocrine fluctuations would be expected to precipitate rapid enlargement of the lesion. Similarly, the abnormal firmness of the mass discouraged the diagnosis of a VVM which is characteristically soft on palpation, but this may be explained by the presence of partially thrombosed vessels. We report the case and propose that catheter angiography remains important in cases where vascular malformation is considered.

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E-083 ACUTE STROKE INTERVENTION FOR LARGE VESSEL OCCLUSION WITH COMBINED STENT RETRIEVER AND SUCTION THROMBECTOMY (SOLUMBRA TECHNIQUE): A RETROSPECTIVE ANALYSIS OF 85 PATIENTS

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Introduction The superiority of mechanical thrombectomy over medical management has been established in recent randomized controlled trials, however, controversy remains over the most effective and safest technique for clot retrieval. Mechanical thrombectomy for large vessel occlusion (LVO) can be performed through aspiration alone with the ADAPT technique, or combined stent retriever with aspiration either in the cervical vasculature using a proximal balloon guide, or directly at the clot face with an intermediate catheter, the so-called "Solumbra" technique. The purpose of this study was to evaluate the efficacy and safety of the Solumbra technique at our institution.

Methods A retrospective chart review was conducted of all patients undergoing endovascular stroke treatment for LVO using the Solumbra technique between January 2014 and March 2016. The Solumbra technique consisted of deployment of a stent retriever (Solitaire, Trevo or Mindframe) distal to the clot with an intermediate catheter (5 Max Ace, Ace 64 or SOFIA) at the clot face. Patient demographic data, stroke presentation, treatment details, and complications were recorded. The primary outcome was successful TICI 2 B/3 reperfusion and the number of passes for revascularization. Secondary outcome measures were complication rates, including symptomatic intracranial hemorrhage (PH2 hemorrhage with a NIHSS increase >4) and mRS ≤ 2 on discharge. Embolization into new territory was based on new post-procedure MRI DWI lesions.

Results The Solumbra technique was performed for LVO in 85 patients (37 male, 48 female) with a mean age of 71.4 years (range 28–93). The mean NIHSS on presentation was 14 (IQR 10–19), and IV tPA was administered in 65% of patients. Vessel occlusion was located predominantly in the anterior circulation in the ICA terminus (n = 12, 14%), M1 (n = 51, 60%) and M2 (n = 16, 19%) segments, with Basilar occlusion occurring in 7 patients (8%). Successful reperfusion (TICI 2 B/3) was achieved in 88% of patients, consisting of TICI 3 in 38 patients (45%). The mean number of passes for

revascularization was 1.9 (SD 1.3) and time from access to revascularization was 52.7 minutes (95% CI 45.3–60.1). Mean NIHSS on discharge was 7 (IQR 2–12) with good functional outcome (mRS ≤ 2) present in 44% of patients, and mortality (mRS = 6) rate of 12%. Complications included parenchymal hemorrhagic transformation (18%), symptomatic intracranial hemorrhage (4.7%) and emboli in new territory based on new MRI lesions (7%).

Conclusion The Solumbra technique compares favourably to other thrombectomy techniques used for acute stroke intervention. It achieved a TICI 2 B/3 reperfusion in 88% of patients, with an average number of 1.9 passes. Good functional outcome was achieved in 44% of patients on discharge, with a symptomatic intracranial hemorrhage rate of 4.7%.

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E-084 LONG-TERM CLINICAL OUTCOMES IN PATIENTS WITH ACUTE ISCHEMIC STROKES TREATED WITH MECHANICAL THROMBECTOMY WHO HAD MODERATE OR MODERATE SEVERE DISABILITY AT 90 DAYS

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Background and purpose Long-term clinical outcomes in patients with acute ischemic stroke (AIS) treated with mechanical thrombectomy (MT) are not well understood. This study aims to determine long-term clinical outcomes in a consecutive cohort of patients with AIS treated with MT who had moderate or moderate severe disability at 90 day follow-up.

Methods Our prospectively-maintained neurointerventional database was queried to identify all patients with AIS treated with MT at our institution from July 1st, 2011 until September 30th, 2015 who had moderate (modified Rankin Scale, mRS, 3) or moderate severe (mRS 4) disability at the time of the 90 day follow-up. At least 6 months after stroke onset, medical records were reviewed and/or phone interviews were conducted by a nurse certified in the mRS and independent of the MT procedure to determine the mRS at the time of last clinical contact. Baseline clinical and radiological characteristics were also obtained.

Results Forty patients met the study's inclusion criteria, comprising 29% of patients treated with MT at our institution during the study period. Twenty patients were male (50%) and 20 female (50%). At presentation, 14 patients had a history of atrial fibrillation (35%), 28 hypertension (70%) and 13 diabetes mellitus (33%). Mean age was 69.8 years. Mean admission NIHSS was 18.2. Twenty-five patients received intravenous tissue plasminogen activator (63%). Thrombus location was M1 segment in 18 patients (45%), internal carotid artery terminus in 14 patients (35%), basilar artery in 4 patients (10%) and M2/M3 segment in 4 patients (10%). Discharge disposition was acute inpatient rehabilitation in 26 patients (65%) and skilled nursing facility in 14 patients (35%). At the time of the 90 day follow-up visit, 18 patients had an mRS of 3 (45%) and 22 had an mRS of 4 (55%). All