percentage of women (59.9% vs. 51.93%, p<0.05). Patients in the thrombectomy group were more likely to be diagnosed with coma (24.19% vs. 4.37%), ICH (42.03% vs. 4.15%), seizure (25.12% vs. 8.14%), SAH (22.71% vs. 1.97%), and hydrocephalus (8.21% vs. 1.64%) (p<0.001 for all). Non-thrombectomy patients were older and had higher rates of hypertension (62.1% vs. 43.48%), diabetes (22.17% vs. 13.04%), hyperlipidemia (40.81% vs. 20.77%), and atrial fibrillation (42.99% vs. 10.14%). Mortality was significantly higher in the thrombectomy group (14.01% vs. 5.66%, p<0.001), with no difference in rates of good outcome. Following propensity matched analysis, there was no difference in mortality between the two groups, however there was a lower rate of good outcome in the thrombectomy group (35.03% vs. 49.24%, OR; [95% CI]: 0.56 [0.36–0.85], p<0.01). Patients were more likely to receive thrombectomy at urban teaching hospitals (OR; [95% CI]: 4.09 [1.44–14.3], p<0.01). Presence of ICH (OR; [95% CI]: 0.43 [0.18–0.99], p<0.05), coma status (OR; [95% CI]: 0.24 [0.06–0.79], p<0.05) and hypertension (OR; [95% CI]: 0.21 [0.06–0.58], p<0.001) were independent predictors of poor outcome among patients who had thrombectomy.

Conclusion In this nationally representative analysis, patients with CVST who underwent thrombectomy were younger, more likely to be women, and had more severe neurological disease. After adjusting for disease severity, there was no difference in the rate of in-hospital mortality between the patients who had thrombectomy and those medically managed. Presence of ICH, coma and hypertension were associated with poor outcome among patients who had thrombectomy. Further studies are warranted to explore appropriate patient selection for thrombectomy in CVST.


Abstract E-013

Figure 1 Comparing transvenous embolization cast in foraminal and epidural venous plexus and A) CSF-venous fistula at Left L1, using the dual microcatheter coil/balloon pressure cooker technique and B) fistula at left T8 without pressure cooker technique. Embolization was successful in both patients; however, using the pressure cooker technique ensured through penetration of embolic agent in exiting venous tributaries and saved time and embolic agent.

Background Endovascular transvenous embolization is emerging as a highly efficacious minimally invasive treatment for patients with CSF-venous fistulas (CVF) associated with spontaneous intracranial hypotension (SIH)(1). To ensure complete and curative embolization of CVFs, we have started treating patients with a dual microcatheter pressure cooker technique using both coils and balloon-microcatheter in patients with CVFs located at the thoracolumbar location. We report the details of this promising technique and describe its treatment efficacy and safety in comparison to single catheter embolization.

Methods We retrospectively reviewed our series of patients with SIH from CVF who underwent transvenous embolization with or without the pressure cooker technique at the Mayo Clinic, Florida between December 2020-March 2022. All CVFs were confirmed on lateral decubitus digital subtraction or CT myelography(2). Procedural details, clinical, and imaging outcomes for all patients were recorded. Patient clinical outcome was determined with 1–3 month post-operative post-global impression of change.

Results Twenty procedures were performed among 18 patients (mean [SD] age 58 [10] years, 78% female. Pressure cooker technique was used in 10 (50%) of the procedures ranging from thoracic 6 levels to the lumbar 1 level. Successful embolization was achieved in all cases and there were no major complications. All ten procedures with pressure cooker technique had significant improvement in follow-up clinical symptoms and imaging. This was in contrast to conventional embolization with 1 patient with treatment failure.


Abstract E-014

Reducing Frame Rate and Pulse Rate for Routine Diagnostic Cerebral Angiography – ALARA Principles in Practice

Background Routine diagnostic cerebral angiography increases, applying the principles of ‘As Low As Reasonably Achievable’ (ALARA) is critical to mitigate ionizing radiation dose to patients and providers. The stochastic and deterministic effects of radiation are known to cause cancer, reduce life-span, cause harmful epigenetic mutations and cause cataracts. A routine 6 vessel diagnostic cerebral angiogram in biplane can expose the patient to the equivalent radiation dose of 10–