Conclusion Our study highlights the considerable heterogeneity among the neurointerventional community regarding vaso-spasm diagnosis and endovascular management. Randomized trials and guidelines are needed to improve standard of care, determine optimal management approaches and track.

Disclosure of Interest Dr Guenego reports consultancy for Rapid Medical and Phenox.

SURGICAL MANAGEMENT OF SPONTANEOUS INTRACEREBRAL HEMATOMA IN A PATIENT WITH HEMOPHILIA C (XI FACTOR DEFICIENCY)

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Introduction Hemophilia C (HC) is a rare, inherited bleeding disorder when the blood does not clot properly. In patient with Hemophilia C there is deficiency of factor XI. Spontaneous intracerebral hemorrhage is a rare and challenging condition to treat, especially in hemophiliacs.

Aim of Study To study the surgical result of patient with Hemophilia C.

Methods A 28-year-old man, was taken to our hospital with sudden onset of headache. Complaints were available for 2 days without history of trauma. The patient had history of hemophilia C. The computed tomography (CT) scan revealed subcortical hemorrhage of the right temporal lobe. His GCS at admission was 15. The patient had no neurological deficit. An urgent consultation with the treating hematologist was performed, and a decision was made to manage the patient conservatively (fresh frozen plasma (FFP) 4 units, mannitol 10% 1000 mg, tranexamic acid 1000mg). 10 hours after admission, his GCS and CT scan of the brain were unchanged. 36 hours after admission, the neurological status of the patient was worsened. His GCS dropped to 12.

Results A decision was made to immediately perform a temporal craniotomy with evacuation of intracerebral hematoma. Surgery and the postoperative period were uneventful. The following 2 days he received 4 units of FFP tranexamic acid 1000mg and mannitol 10% 1000 mg/day.

Conclusion Spontaneous intracranial hemorrhage is a serious and potentially fatal sequela of Hemophilia. Correction of clotting factor deficiency is of paramount importance prior to surgery and in the immediate post-operative period.

Disclosure of Interest Nothing to disclose

IMAGING AND MORTALITY OUTCOMES AFTER MIDDLE MENINGEAL ARTERY EMBOLIZATION: A CASE-SERIES REPORT


Introduction SDHs are more prevalent among the elderly and can cause significant morbidity and mortality. n-BCA has proven to be an effective and safe agent for embolization of middle meningeal artery (MMA).

Aim of Study We present a retrospective analysis of patients who underwent MMA embolization for SDH.

Methods We included 31 patients who were diagnosed with chronic or acute-on-chronic SDH and underwent MMA embolization with n-BCA. Primary endpoint was >50% SDH reduction, secondary endpoint was all-cause mortality. Patients were separated into outcome groups and their variables were compared using Wilcoxon rank-sum, or Fisher’s exact tests. Through logistic regression we determined variables that influenced SDH reduction and mortality.

Results Hypertension (n=23; p=0.04), antiplatelet (AP) (n=8; p=0.02), and MMA embolization via radial approach (n=18; p=0.004) had <50% SDH reduction. Embolization via femoral approach (n=13; p=0.004), and longer mean fluoroscopy times (43.2 minutes vs. 28.2 minutes; p=0.03) had >50% SDH reduction. On logistic regression, femoral approach (OR 12; 95% CI 1.9, 76.4; p=0.004) and longer fluoroscopy times (OR 1.1, 95% CI 1.0, 1.1; p=0.03) had >50% SDH reduction. Mortality in patients (n=6) was not associated with SDH or the procedure (p>0.05.)

Conclusion Our small sample size underestimates the effect some variables may have on radiographic and clinical outcomes. Hypertension and use of AP may play a role in hematoma resolution; however, a bigger cohort is needed to confirm these hypotheses. Future randomized controlled trials will help establish MMA embolization as the primary method for SDH management given its safety and efficacy.

Disclosure of Interest Nothing to disclose

3.1 OTHER – Innovation

DRUG DELIVERY TO THE BRAIN: DOES ENDOVASCULAR HAVE A ROLE?

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Introduction Drug delivery to the brain remains challenging mainly due to the blood brain barrier. We previously reported on cisterna magna (CM) microcatheterization through a lumbar puncture for gene therapy of Tay Sachs disease. Technology for CFS drainage in treatment of hydrocephalus (eShunt, Cerevasc) has enabled transvenous access to the cerebellopontine angle (CPA) cistern.

Aim of Study We hypothesize that CPA injection is safe and comparable to the biodistribution of scAAV9-CB-GFP observed with CM injection.

Methods Eight sheep were injected with scAAV9-CB-GFP into the CPA (n=4) and CM (n=4). Through a lumbar puncture, a 1.7F microcatheter with 0.014” micro-guideewire was navigated into either the CPA cistern or CM under fluoroscopy. Cone-beam computed tomography fused with MRI was used to confirm accurate microcatheter placement. scAAV9-CB-GFP (1.0 x 1014 vg in 3 ml) was injected at 200μl/min. Animals were sacrificed 3 weeks post-procedure. Anti-GFP antibody immunohistochemistry was performed and vector genome biodistribution was determined by qPCR.