

**E-058** **PILOT STUDY: FEASIBILITY OF THE USE OF VENTURA EMERGENCY LARGE VESSEL OCCLUSION SCALE TO IDENTIFY LARGE VESSEL OCCLUSION STROKE**

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**Objectives** To evaluate the feasibility and reliability of a self-designed Ventura Emergency Large Vessel Occlusion (ELVO) Scale performed by Emergency Medical Services (EMS). To identify, if field identification of ELVO, reduces door to groin time.

**Background** Endovascular treatment of stroke is now the standard of care for large vessel occlusion (LVO) stroke within 6 hours of onset. The outcomes of intra-arterial (IA) endovascular treatment are time dependent. The time from arrival to groin vary during the day time versus after hours or infield transfers compared to hospital to hospital transfers. Pre-identification of LVO from field can shorten the door to groin time by activation of Interventional Radiology (IR) team earlier. We designed a scale that can be used by EMS personnel in the field to identify ELVO or non-Emergency Large Vessel Occlusion.

**Methods and analysis** Ventura ELVO Scale (VES) comprise of four components: 1) Eye Deviation 2) Aphasia 3) Neglect 4) Obtundation, each component scoring either 1 or 0. The maximum score is 4 and minimum score is 0. The score of 1 or greater will be considered as ELVO positive. VES will be implemented by EMS to identify ELVO patients in the catchment area of Los Robles Hospital and Medical Center. Retrospective data will be collected from EMS, Emergency Department (ED) and IR records of participating patients. Door to groin time for intra-arterial (IA) treatment before implementation of the Ventura ELVO protocol will be compared with door to groin time after implementation of Ventura ELVO protocol. In prospective patients, EMS will measure ELVO score in the field using the VES. A positive ELVO score along with positive Cincinnati scale will prompt ELVO activation. EMS will call the neuro-interventionist who will then activate the neuro-intervention protocol at the receiving Hospital.

**Implications** Ventura ELVO scale can help to reduce door to groin puncture time, which can possibly improve the management and triage of stroke patients with ELVO.

**Disclosures** **M. Taqi:** None. **S. Quadri:** None. **S. Suriya:** None.

**E-059** **BLEOMYCIN SCLEROTHERAPY FOR EYELID VENOUS MALFORMATIONS AS AN ALTERNATIVE TO SURGERY OR LASER THERAPY**

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**Purpose** To describe the use of bleomycin in a foam preparation and or radiopaque, and or undiluted in slow flow venous malformations that involve the mucosa of the eyelid, and periorbital area.

**Material and methods** 11 patients with venous malformations, involving the mucosa of the eyelid, and periorbital area, were treated with various combination bleomycin injections in to

the lesion under direct puncture, and monitored with US and/or DSA. We will describe the various techniques and when best to use them.

**Results** There was significant improvement, or near total resolution in all patients with a follow up of up to 4 years, there were 2 recurrences, there were no complications

**Conclusions** The use of bleomycin in various forms appears as a simple, safe and very effective treatment for venous malformations involving the mucosa of the eyelid, and periorbital area, avoiding more elaborated and challenging surgical or laser interventions, and is effective in thicker lesions.

**Disclosures** **A. Berenstein:** None.

**E-060** **COIL EMBOLIZATION OF SMALL AND WIDE NECKED INTRACRANIAL ANEURYSM WITH TEMPORARY STENT ASSISTED TECHNIQUE**

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**Purpose** For small and wide-necked intracranial aneurysms, the authors present a novel temporary stent-assisted technique (TemSAT) using fully retrievable stent, the Solitaire AB.

**Materials and methods** Data of a small series of patients who underwent TemSAT was prospectively collected and analyzed. Total 12 patients with 12 aneurysms were enrolled from March 2011 to May 2011. The basic characteristics of the aneurysms, radiologic and clinical outcome were analyzed.

**Results** Five p-com, 4 paraclinoid ICA, 1 a-com, 1 MCA bifurcation and 1 V4 aneurysms were treated with this technique. One of the p-com aneurysm was ruptured and the other aneurysms were unruptured. Their size was small less than 10 mm (2.5–9.0 mm). The mean aspect ratio was 1.23 (1.1–1.4). Immediate angiographic results were complete in 11 cases and neck remnant in 1 case. There were 2 cases of intraprocedural in-stent thrombosis complication, which resolved after removal of the stent and intra-arterial thrombolytic agent injection. There was no cases of postoperative neurologic complications. The average packing density of the aneurysm was 33.9 % (19.9–57.3).

**Conclusion** By temporary neck remodeling with retrievable stent, blood flow obstruction risk could be reduced contrary to balloon assisted technique. In addition, there is no need for life-long antithrombotic agent administration. However, due to the characteristics of the Solitaire stent, natural angle of the artery was changed and it resulted in in-stent thrombosis. This technique can be effective in carefully selected cases.

**Abbreviations** a-com anterior communicating artery MCA middle cerebral artery p-com posterior communicating artery V4 vertebral artery 4 th segment

**Disclosures** **W. Yoon:** None.

**E-061** **WHAT'S THE RELIABILITY AND SIGNIFICANCE OF PRE-COILING CT ANGIOGRAPHY IN RUPTURED CEREBRAL ANEURYSMS?**

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**Purpose** The endovascular coiling of cerebral aneurysm is fundamentally based on exact evaluation of aneurysm size, shape and so-called working angle of procedure. Nowadays, as initial surveillance procedures, CT angiography has been performed prior to endovascular coiling of ruptured aneurysms. We retrospectively compared the initial CT angiography and initial working angle angiography focusing to interval changes, chosen treatment modality and its results.

**Material and methods** One hundred twenty two patients, each with ruptured cerebral aneurysm(s), underwent endovascular coiling procedure between 2012 Jan and 2014 Nov. Immediately after recognition of subarachnoid hemorrhage (SAH) symptom or mental change, CT angiography was checked as initial diagnostic procedure. After confirmation of SAH, catheter angiography was performed for decision making. We compared the CT angiography and catheter angiography and subgrouping was performed same as follows; Group 1 = no changes, group 2 = smaller aneurysm at catheter angiography, group 3 = larger aneurysm at catheter angiography.

**Results** The mean age was 53.9 years and female patients were dominant (80 cases). The mean interval of getting first image between CT angiography and catheter angiography was 115 minutes. Group 1 was 107 cases (87.7%). Group 2 was 11 cases (9.0%). Group 3 was 4 cases (3.3%). In group 2, the specific aneurysm location did not exist. Rather, "narrow neck with saccular dome" pattern was dominant (6 cases; 54.5% of group 2). The coiling procedures were successful in 9 cases (81.8%) in group 2, and one case of failed coiling showed typical discrepancy between CT angiography and catheter angiography. In group 3, specific aneurysm location could be found definitely; the dorsal wall of internal carotid artery was dominant (3 cases; 75% of group 3). In both groups, coiling procedures could be performed effectively based on working angle angiography as well as CT angiography.

**Conclusion** The discordance between CT angiography and catheter angiography was infrequent, but in these cases, mutual supplement is critical for exact decision making and safe endovascular coiling procedure. The CT angiography should be performed with same importance of working angle angiography.

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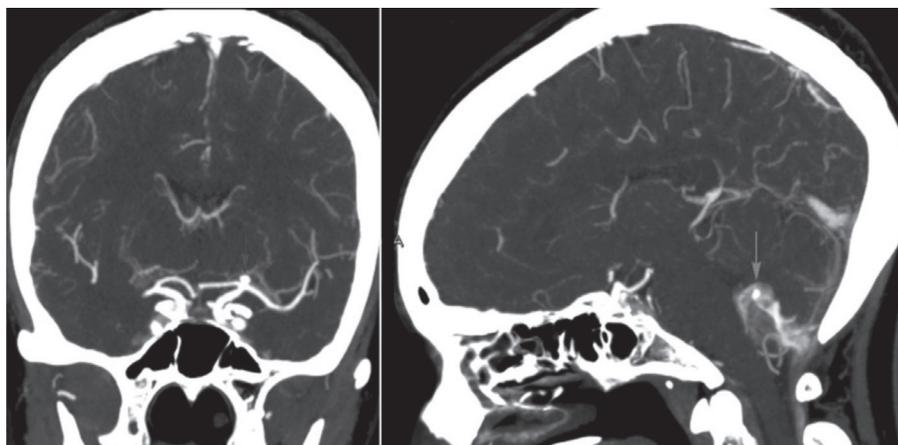
## E-062 CEREBRAL ANEURYSM DEBUTING AS RUPTURE DURING DIAGNOSTIC CT ANGIOGRAPHY: AN UNEXPECTED WORST-CASE SCENARIO

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**Introduction** Rupture of a previously-asymptomatic intracranial aneurysm rupture is occasionally encountered during endovascular coiling, but is not considered a significant risk during invasive angiography and is seen rarely.<sup>1</sup> Acute rupture at the exact time of computed tomographic angiography (CTA) has not previously been reported, and intravenous contrast injection is not felt to be a risk factor for aneurysm rupture. Typically, CTA acquisition is not supervised by a physician, and identification/reporting of acute phenomena by a radiographer is not currently standardized. We describe a case of rupture at the time of CTA, after which the patient experienced decompensation in an unsupervised waiting area.

**Case presentation** An asymptomatic 40 year-old woman was referred for evaluation of a left-sided unruptured carotid bifurcation aneurysm identified on workup for headaches. Upon returning from the CTA suite, she became progressively confused, and was immediately transferred to the emergency department. Rapid neurological deterioration ensued, as her Glasgow coma scale dropped to 3 and her pupils became unreactive at 6 mm. The question of contrast allergy was initially raised. CTA revealed a previously-undetected posterior inferior cerebellar artery (PICA) aneurysm which demonstrated active contrast extravasation. She was urgently sedated, intubated, and infused with mannitol. A repeat unenhanced head CT showed a Fisher grade 4 subarachnoid hemorrhage with intraventricular extension and hydrocephalus, characteristic of ruptured PICA aneurysm. Bilateral external ventricular drains were placed, and a suboccipital craniectomy was performed expeditiously with successful haematoma evacuation and aneurysm clipping. She was transferred in stable condition to the neuro-intensive care unit, but unfortunately succumbed to vasospasm 10 days later.



Abstract E-062 Figure 1