

rupture during the procedure, was noted (1%) with intracranial hematoma. Only one patient (1%) had intracranial arterial microemboli during the procedure. **Conclusion:** Endovascular coiling of ruptured intracranial arterial aneurysms is safe and effective. It is used as a first-line treatment in emergency. Going forward, we suggest the establishment of a result predicting score in patient having endovascular treatment for ruptured aneurysms.

## OR1.4

### Flow Diverter as a Sole Treatment for Internal Carotid Termination Aneurysms

**Mostafa Mahmoud, Ahmed Altaher, Mostafa Farid, Wessam Sherin, Ahmed Elserwi, Amr Abdelsamad, Farouk Hassan<sup>1</sup>**

*Ain Shams University, <sup>1</sup>Cairo University, Cairo, Egypt.  
E-mail: mmahmoud19170@gmail.com*

**Objectives:** Treatment of internal carotid artery termination region (ICATR) aneurysms including aneurysms of the true ICA terminus, those inclined on the proximal A1 or M1 segments or at the most distal prebifurcation ICA segment, is often challenging for either surgical or endovascular ways. Few reports had discussed flow diversion as a therapeutic option for this group. In this study, we present the efficiency and safety of flow diversion in our cohort as well as in 27 patients reported in the English literature. **Methods:** This is a retrospective study analyzing extraluminal flow diversion in treating ICATR aneurysms. Patients' demography, procedural technical description, and angiographic and clinical follow-up were recorded. **Results:** The mean age was 49 years. Seven patients harboring eight aneurysms in the ICATR have been treated with flow diversion. Five aneurysms were inclined on the proximal A1 segment and three aneurysms were located at the most distal prebifurcation segment. There were four female patients included in this study. The mean aneurysm maximum diameter was 5.3 mm. Two cases presented with acute subarachnoid hemorrhage, four presented with headache, and one had family history of subarachnoid hemorrhage. All patients except one underwent angiographic follow-up. Karman-Byrne occlusion scale was used to determine the occlusion rate. For six patients with a documented angiographic follow-up, all of them had a Class IV occlusion score. No permanent or transient neurological or nonneurological complications were encountered in this study. **Conclusion:** Treating ICATR aneurysms using flow diversion was feasible with promising angiographic occlusion rate. Further studies are needed to analyze long-term clinical and angiographic results.

## OR1.5

### Mothership and Drip and Drive Neurointerventional Models Are Better Than Drip and Ship Model in Bahrain Stroke Services

**Mohamed Elmahdy Ibrahim<sup>1,2</sup>**

*<sup>1</sup>Faculty of Medicine, Cairo University, Cairo, Egypt, <sup>2</sup>King Hamad University Hospital, Muharraq, Bahrain.  
E-mail: mmalmahdy@yahoo.com*

**Objectives:** In the new era of novel stroke management, there is increasing demand for neurointerventional expertise. In the current

study, we compare the best available options for interventional stroke care models in Bahrain. **Methods:** Since February 8, 2018, the first stroke code was activated in King Hamad University Hospital in Bahrain; to date, 565 stroke codes were activated. Thirty-two patients received mechanical thrombectomy alone or with intravenous tissue-type plasminogen activator (IV TPA); of them, there are patients referred from primary stroke centers where they received IV TPA in the sending hospital if they arrived within the thrombolysis time window following the Drip and Ship Model. **Results:** Before the initiation of the primary stroke centers 1 year after our program, the patients were sent directly to our institution in a Mothership Model, and now, since the start of the other primary stroke programs, there are some noticeable transfer delays, namely related to process of transfer, lack of workforce, and other factors. **Conclusion:** There is a strong need to develop either the interventional services in the primary stroke centers to develop into comprehensive centers hence a Mothership Model or better develop the Drip and Drive model to overcome delays and costly requirements of Drip and Ship Model.

## OR1.6

### Zone 3 Thoracic Endovascular Aortic Repair on Short Neck Aortic Injury: Apply on Traumatic Situations

**Seong Ho Kim, Yohan Kwon<sup>1</sup>, Je Hwan Won<sup>1</sup>, Jinoo Kim<sup>1</sup>, Jonghwan Moo<sup>1</sup>**

*Seoul National University Hospital, Seoul, <sup>1</sup>Ajou University Hospital, Suwon, South Korea.  
E-mail: evazzang23@gmail.com*

**Objectives:** Thoracic endovascular aortic repair (TEVAR) offers the benefit of precision and immediacy in attending to the target lesion compared to conventional surgical options. The most frequent location of blunt aortic injury is isthmus. In the present analysis, we aim to address the safety and efficacy of TEVAR in traumatic blunt aortic injury (TBAI), confined at short neck (<2 cm) aortic injury. **Methods:** The retrospective analysis was conducted in this single-center study of consecutive patients presenting with TBAI. We reviewed 14 consecutive patients treated for TBAI from December 2011 to April 2019 and calculated the neck length based on their computed tomographic (CT) and angiographic findings by three interventional radiologists. Medical records and follow-up imaging acquired 1 and 3 months after the procedure were reviewed. **Results:** A total of 14 patients were diagnosed with short neck TBAI. Locations of involvement lesions were aortic isthmus in all cases. All 14 patients were classified above BAI grade 2. Age range of the patients varied from 29 to 75 years due to traumatic situations. The mean neck length was 1.78 cm, from left subclavian orifice margin to damaged lesion. The mean follow-up duration was 18.8 months. Overall mortality was 6.6%. A total of three complications occurred, type Ia endoleak. The two of them were self-limited at follow-up CT findings, and the third underwent additional treatment as intentional left subclavian artery sealing with chimney stent-graft insertion. **Conclusion:** Our results suggest the safety and efficacy of TEVAR, even in short neck TBAI. Additional prospective studies and longitudinal follow-up are needed to confirm its long-term effectiveness.