assessed on admision and at discharge of national institutes of health stroke scale (NIHSS) score, at 3 months after treatment modified rankin score (mRS). **Result(s):** 90 patients with acute basilar artery occlusion (32 women, 58 men) with a median age of 69 years (range, 44 -85 years). The median NIHSS score was 14.4 (range, 2-33) on admission and median time from symptom onset to intraarterial alteplase therapy was 320 minutes (range, 160-820 minute). The median intraarterial alteplase treatment duration was 20 minute (range, 10-25) and the alteplase dose was 20- 50 mg (median, 35 mg). Of these patients, sixteen patients were performed the additional injection of alteplase due to distal migration of thrombus into the posterior cerebral artery. Five patients were the severe stenosis of basilar artery after alteplase infusion and mechanical clot disruption with microcatheter and microwire. Of these patients, three patients were performed the stent placement after angioplasty and two patients were performed the angioplasty. Recanalization (TICI grade II or III) was achieved in 85 patients (94.44%). TICI grade III was occurred in 43 patients (47.78%) include, and TICI grade II was achieved in 42 patients (46.67%). Five patients (5.55%) was failed the recanalization of posterior circulation. Of these failed treatment patients, three patients had a massive thrombus into the vertebrobasilar artery, one was stopped the treatment due to procedure-related subarachnoid hemorrhage, and one had a diffuse and long segmental stenosis of basilar artery. There was symptomatic hemorrhage in four patients. Two patients were occurred the procedure-related hemorrhage. Eight patients (8.89%) died within one-week after procedure. At discharge, the median NIHSS score was 7.2 (range, 0-27). The NIHSS score of 55 patients was improved. In 30 patients, the NIHSS score was increased. At the 3-month follow-up, the functional outcome was favorable (MRS, 0-2) in 50 (55.56%) of the 90 patients. Unfavorable (MRS, 3-6) in 40 (44.44%) patients. **Conclusion(s):** We concluded from the study that low-dose intraarterial thrombolytics with mechanical clot disruption is feasible, safe and effective treatment for the acute basilar artery occlusion. A high rate of recanalization, high rate of survival rate and good functional outcome can be achieved.

OC2.2

Finding Predominant Vessels Supplying Presurgical Embolization of Nasopharyngeal Angiofibroma

Shahzad Bhatti[1,2]

[1]Sir Ganga Ram Hospital, FJ Medical University, [1]Lahore General Hospital, [2]Sir Ganga Ram Hospital, Lahore, Pakistan.
E-mail: shahzadkbhatti@gmail.com

Background: Nasopharyngeal angiofibroma is a benign fibrovascular tumor affecting young adolescent boys, originating from the posterolateral wall of the nasal cavity. The young patients mostly present with chronic epistaxis, Nasal obstruction, rhinorrhea, Conductive hearing and diplopia. Study is done to find the predominant arteral feeder during pre surgical embolization of Juvenile Nasopharyngeal angiofibroma (JFA) in order to reduce blood loss and intra operative time during surgery. **Method(s):** Four vessels angiography (DSA) was done in all patients including internal and external carotid angiography with superselective angiography of vessel supplying tumor. Presurgical embolization of 150 patients done with spongostone in angiography suit of Neuroradiology department, Lahore General Hospital, Lahore, Pakistan with age ranging from 12-18 years males from January 2014 to December 2017. All patients underwent surgery with in 24 hours. **Result(s):** Out of 150 patients Internal maxillary artery was supplying 111 patients, 30 were supplied by accessary meningeal artery and 09 were supplied by ascending pharyngeal artery. Presurgical embolization with Spongostone proved significant reduction in intra operative blood loss and reduced surgical resection time. **Conclusion(s):** Internal maxillary artery proved to be the major feeder supplying JNFA. Presurgical embolization appears to be the treatment of choice prominently reducing intra operative blood loss, minimizing the need of blood transfusion with short intra operative time resulting in quick and better surgery.

OC2.3

Cookie Cutter Technique for Percutaneous Direct Puncture Glue Embolization of High-Flow Craniofacial Arteriovenous Malformations

Saima Ahmad, Umair Rashid Chaudhry

Lahore General Hospital, Lahore, Pakistan.
E-mail: masterinfluencer@gmail.com

Background: Direct puncture embolization with glue is an effective technique for pre-operative devascularisation of craniofacial arteriovenous malformations. Venous outflow and arterial inflow of the lesion need to be limited during injection of embolic material. Manual compression is the standard procedure for flow reduction, but when an AVM has multiple channels of venous drainage, achieving successful blockage of blood is technically difficult. This study demonstrates the use of a circumferential cookie cutter ring to reduce flow, with better results compared to manual compression. **Method(s):** This is a retrospective study of ten patients, over a period of two years, with craniofacial arteriovenous malformations who were treated with direct percutaneous injection of glue. Pre-embolization angiography was performed to see arterial feeders and venous draining veins. Adjunctive manoeuvres were used during embolization, including external compression of venous pouch with circular cookie cutter rings of different sizes varying based on lesion size. Glue cast was localized within and around the margins of circular cookie cutter ring without any distal migration. **Result(s):** No neurological complications secondary to the embolization procedure were observed. The arteriovenous shunts were successfully occluded in all cases. There was partial occlusion in two cases. Total occlusion achieved in five cases when embolization was followed by surgery. Only one case required a second session to achieve total occlusion. Post embolization, there was minimal residual flow in one patient, who declined further treatment due to mitigation of symptoms. The shape of glue cast was changed in two cases after removal of cookie cutter when low concentrated glue was used. No skin necrosis was seen post embolization. **Conclusion(s):** Percutaneous direct puncture embolization with glue saves time and is a safer method for superficial craniofacial AVMs with prominent venous pouch when external compression was applied with circumferential cookie cutters to reduce venous outflow.

OC2.4

Posterior Fossa Arteriovenous Malformations: Endovascular Management Challenges

Hany Eldawoody, Mohamed Mostafa Aziz[1], Wasem Aziz[2]

Prince Mohamed Bin Abdelaziz Hospital, Riyadh, Saudi Arabia, [1]Department of Neurosurgery, Ainshams University, Cairo, [2]Department of Neurosurgery, Alexandria University, Alexandria, Egypt.
E-mail: eldawoodyh@pmah.med.sa

Background: Posterior fossa arteriovenous malformations (AVMs) are complex neurovascular lesions, relatively infrequent and difficultly is encountered not uncommonly during their treatment. Although they represent less than 15% of all AVMs, studies showed that they have more aggressive natural history. The authors present their initial experience with multimodality management of 20 posterior fossa AVMs, with an emphasis on endovascular treatment in Egypt. **Method(s):** From January 2012 to august 2015; twenty patients with posterior fossa AVMs treated with endovascular techniques, radiosurgery and/or surgery were analyzed. **Result(s):** Out of the twenty cases; 15 cases were treated with onyx embolisation through 27 sessions, one case with glue NBCA. Out of these cases 3 were embolised over 90%, the rest of cases were partially embolised and referred for complementary treatment with surgery or gama knife. The most frequent difficulties encountered during endovascular treatment were catheter navigation in the tortuousity of SCA (2 territories), AICA (2 territories), PICA (1 territory). Identification of onyx flow to the vein in the working angle (3 cases), extravasation of onyx (2 cases). The average occlusion rate of the AVM embolised after an average 1.8 (range 1-7) procedure per case was 52.66%. The average size of AVM embolised was 2.6 cm in maximum diameter. 4 cases (20%) complicated by cerebellar tremors and ataxia 2 of them were transitory and 2 were permanent, one case died from pulmonary embolism. Pod2 and two cases with hemihypothesia, one was permanent. **Conclusion(s):** Considering our early experience, onyx embolisation to posterior fossa AVMs is feasible and can lead considerable obliteration rate when the AVM has single feeder, although the consideration of deep supply to the cerebellar nuclei and brain stem perforators is of utmost importance to diminish the possible untowarded consequences.

OC2.5

Treatment of Femoropopliteal Arterial Disease in Critical Limb Ischemia with Drug Eluting Stents: A Real World Experience

Peter Drescher, John F. Kispert, Phillip Zalog

Advocate Aurora Medical Group, Milwaukee, Wisconson, USA.
E-mail: pdrescher@wi.rr.com

Background: Drug eluting technology has revolutionized pad treatment. Drug eluting stents (DES) promise superior patency and clinical outcome based on recent randomized trials. The role of DES in patients with critical limb ischemia (CLI) is unknown, since cli is excluded from many DES trials. We report our experience in cli patients undergoing DES treatment of the femoro-popliteal artery (DES-fpa) in a real-world experience. **Method(s):** Cli patients, undergoing DES-FPA in single institution were followed prospectively over a two-year period with angiography, color duplex ultrasound (CDUS) and clinical evaluation. Outcome measures were primary patency (PP) of the treated lesion, target limb re-intervention (TLR). Secondary outcome was amputation (A) and major complications. Analysis of patient characteristics, lesion morphology including calcification, requirement of additional treatments and comparison to randomized des trials was performed. **Result(s):** 36 patients with CLI (mean age: 73), underwent des-FPA. Follow-up period ranged between 1-36 months with a mean of 13.7 months. Most patients were Rutherford 5 class. The lesion morphology was: length 128 mm (range 60-280 mm), moderate or severe calcification in 78%, TASC ii d lesion 47% and TASC II a lesions only 15%. Additional interventions were performed in 88% of all patients: 76% tibial, 12% aorto-iliac intervention. PP at 12 months was 67% with an average of 10.4 months. Mortality in the observation period was 26% (average: 3 mo). Excluding these patients, the pp was 82% with average patency of 15.7 months (4 - 30 months). TLR was 42% mostly tibial artery reintervention. Six patients (17%) underwent a, two of those major. Two major complications occurred (6%). **Conclusion(s):** Des- FPA in CLI patients demonstrate promising intermediate term results with primary patency of 67% and 82% when excluding unrelated early deaths, exceeding comparative results in this challenging patient population.

OC2.6

Modified Percutaneous Aspiration Injection Reaspiration and its Outcomes

Muhammad Awais, Aman Nawaz Khan, Ummara Siddique Umer, Seema Gul, Shahjehan Alam, Syed Ghaus Shah, Muhammad Asif, Ali Asghar Sahib, Hadia Abid, Abdullah Safi, Aliya Sharif

Rehman Medical Institute Peshawar, Charsadda, Pakistan.
E-mail: muhammad10117@gmail.com

Background: Modified Percutaneous Aspiration Injection Reaspiration (PAIR) procedure of hydated cyst has documented that its morbidity and mortality rates, hospitalization time, and recurrence rate are significantly less than those with surgery. **Method(s):** The study was performed in Radiology department of Rehman Medical Institute Peshawar. Twenty three patients who had undergone modified percutaneous PAIR procedure between January 2016 and August 2018 were selected for prospective study. In these cases twenty cases were of liver hydatid cysts, two were of spleen cysts and one case was of right posterior abdominal wall. In twenty cases pre procedure imaging work-up was performed by CT abdomen and in three cases by ultrasound abdomen. From every patient informed consent was taken and procedure outcomes and complication were explained to the patient. A consultant interventional radiologist performed procedure in twenty two cases by ultrasound guidance and in one case by CT guidance. Post procedure, patient was advised albendazole for two weeks. All patients were followed-up at 3, 6, 12, 24 months post procedure. Improvement in radiological imaging as well as in clinical symptoms assessed the procedure success and failure. **Result(s):** The age of our patients ranged between 10-75 years. Single, double and multiple hydatid cysts were seen in 69.56%, 21.7% and 8.6% respectively. On follow-up only 8.65% cases had mild right hypochondrium pain and only 4.35% cases had persistant liver hydatid cyst. No other procedure related complication noted. On serology, echinossus granulosus titre was negative in 3.4% cases. All patients were satisfied from modified PAIR procedure. **Conclusion(s):** Modified percutaneous PAIR procedure showed promising result with a success rate of almost 95.65%.