# P405

# Endovascular Management of Traumatic Thoracic Aorta Injury

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Background: Acute traumatic rupture of the descending thoracic aorta is a life-threatening situation. Endovascular technique offers a minimal invasive alternative compared to open surgical repair, thereby reducing morbidity and mortality. The aim of this study is to evaluate the early outcomes of patients undergoing thoracic endovascular aortic repair for blunt aortic isthmus injury. Method(s): Between January 2009 and October 2018, 52 patients with acute traumatic rupture of the descending thoracic aorta were treated with a stent-graft. Preoperative workup included body computed tomography scan for all patients. The endovascular management was selected because of associated polytrauma. The injuries were classified into categories (grades I-IV) based on severity: intimal tear, intramural hematoma, pseudo aneurysm, or rupture. Result(s): Ninety-two percent (23/2) of patients were male with mean age of 38.4 (range 16-78) years. Thoracic stent grafts were implanted within a median of 5 days following injury (range 01-15 days). Seventy-two percent of aortic injuries were grade III. Mean injury severity score was 29 (range 16-61). The left subclavian artery was completely covered in70% of patients. One patients underwent staged procedure: left carotid artery and subclavian artery revascularization then endograft procedure ; due to a retrograde dissection involving the origin of the left carotid artery. The median procedure time was 50 minutes, and median hospital stay was 8.9 days. There was 100% successful device delivery and deployment. The postoperative course was uneventful, especially no upper limb ischemia or neurologic complication. No procedure-related deaths have occurred and no cardiac or peripheral vascular complications were observed within the 12 months (range 6-16 months) follow-up. Computed tomography at one month showed in one patient a complete coverage of the left carotid artery by the stent graft without any clinical consequence, and in one patient endoleak type 3. Conclusion(s): Thoracic endovascular aortic repair in treatment of blunt thoracic aortic injuries showed a good early outcome. It is considered the new gold standard treatment. Dealing with young patient represents the big challenge.

#### **P406**

Vena Cava Filter Deployment Prior to Percutaneous Endovenous Therapy for Proximal Lower Limb Deep Venous Thrombosis: Should we Routinely Practice?

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**Background:** Anticoagulant therapy remains the prevalent treatment for venous thromboembolism (VTE). In the new era of percutaneous endovenous intervention, there is a progressive raise in the use of percutaneous endoluminal clot dissolution techniques

as catheter directed thrombolysis (CDT) and mechanical aspiration thrombectomy (MAT) devices due to its established shortterm benefits. Prophylactic Deployment of inferior vena cava (IVC) filter during percutaneous endovenous therapy for lower extremities deep venous thrombosis (DVT) is still debatable issue. Method(s): Percutaneous endoluminal clot dissolution using either CDT or MAT for proximal lower extremity DVT was performed on 64 limbs in 58 patients of 148 patients diagnosed with proximal acute / subacute DVT in vascular surgery department of study hospitals. IVC filter was deployed in 31 patients prior or during the procedure. Result(s): From 58 patients were treated for proximal DVT with clot debulking procedures, IVC filter was prophylactically deployed in 30 patients (51.7%). Trapped thrombus in the deployed filters as revealed on venocavography was observed in 8/30 (26.7%) filters deployed prophylactically with overall rate of thrombus embolization during percutaneous endovenous thrombus dissolution techniques was 11/58 patients (18.9%). Conclusion(s): Catheter directed thrombolysis could be done safely and effectively without routine prophylactic IVC filter placement in treating acute DVT. Selective filter placement may be considered in patients undergoing mechanical thrombectomy or patients with more proximal thrombus pattern with multiple risk factors.

#### P407

Preoperative Embolization of Renal cell Carcinoma Femoral Mets with Pathological Fracture: Case Series

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Background: Renal cell carcinoma (RCC) accounts for 3% of all cancers, with peak incidence between 60 and 70 years of age. RCC is very aggressive tumour and almost 20-30% of patients have metastatic disease at time of presentation. Most common metastasis in RCC occurs to lung, followed by bone, lymph nodes, liver, adrenal gland and brain. Skeletal metastasis may present with pain, impending fractures, nerve compressions, hyperkalemia and even pathological fracture which may require surgical interventions. As RCC is normally a hypervascular tumor, seen in 65%-75% of patients that bleed profusely even after a simple biopsy. We present here two cases of Renal cell carcinoma metastasized to femur with pathological fracturs and were pre-operatively embolized and then underwent operation fixation with minimal blood loss. Method(s): Angiography and embolization was done using state of art, digital substraction angiography unit (Siemens artis zee floor mounted), under local anesthesia by a single interventional radiologist with experience of more than 10 years. Transfemoral route was used in both cases. Access was gained through 5-6 Fr cathether and combination of gelfoam particles and tornado coils were used for embolization. No immediate post operative complications observed. Result(s): At our institution, embolization of femoral metastasis showed high technical success and reduced intraoperative blood loss. Conclusion(s): At our institution, embolization of femoral metastasis showed high technical success and reduced

intraoperative blood loss, in keeping with published series from across the world. Preoperative embolization of hypervascular tumour /metastases should be considered to decrease intraoperative blood loss.

#### P408

#### Femoropopliteal Angioplasty: Short and Mid-Term Results: Results of a Cohort of 270 Cases

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Background: Percutaneous endovascular therapy is becoming a primary option for managing femoropopliteal occlusive disease. The purpose of this study was to evaluate the mid-term results of endovascular treatment of femoropopliteal arterial disease and to identify predictor factors for success. Method(s): Records and observations of patients having had a femoropolitteal angioplasty procedure between January 2012 and January 2018 were studied. Inclusion criteria - Femoropopliteal angioplasty performed for stenosing and / or occlusive atheromatous lesions. Exclusion criteria: (1) Associated supra-crural surgery. (2) Aneurysmal pathology. (3) Absence of angiographic exploration. Result(s): Femoropopliteal percutaneous transluminal angioplasty was performed on 270 consecutive limbs (265 patients). The average age of our patients was 62.2 In our study, 87.6% of patients had critical limb ischemia. Lesions were classified as Trans-Atlantic Inter-Society Consensus (TASC) A (43%), B (43%), C (7%), and D (7%). Femoropopliteal interventions included simple balloon angioplasty in 117 cases (43.2%), and use of at least one stent for the the remaining 153 cases (56.8%). Technical success was achieved in 98.7% of patients. We recorded three deaths and a major morbidity rate was 15%. The actuarial primary patency at 12 and 36 months was 65.4% and 40.2%, respectively. The actuarial primary limb preservation rate was 94.4 % at 12 months. Comparison between simple balloon angioplasty and the use of primary stenting show no difference in patency (P = 0.832) and limb salvage (P = 0.67). Negative predictors of primary patency determined by univariate analysis included popliteal location (P < 0.001) and TASC D (P < 0.001). However, diabetes mellitus (P = 0.001) and poor run off (P < 0.001) were the principal predictive factors of limb loss. Conclusion(s): Femoropopliteal angioplasty can be performed with a low morbidity and mortality. Intermediate primary patency is directly related to TASC classification and popliteal localization. Primary stenting dosen't improve permeability and limb salvage.

#### P409

#### Percutaneous Revascularization Aq4 as a Feasible Option for Complex Aortoiliac Occlusive Disease with Fair 1-Year Outcome

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Benha University, Benha, <sup>1</sup>Ain Shams University, Cairo, Egypt. E-mail: ahmed.allam01@fmed.bu.edu.eg Background: Aortoiliac arterial occlusive disease (AIOD) is one of the commonest patterns of systemic atherosclerosis with a spectrum of chronic symptoms from intermittent claudication to critical limb ischemia, which is a common therapeutic challenge. A meaningful shift has evolved in treating symptomatic AIOD from open to endovascular repair, which are becoming an attractive treatment option even in complex lesions, especially in patients with considerable risk. The aim of this study was to assess the feasibility, that is, technical success rates, primary patency, and safety outcome for Trans-Atlantic Inter-Society Consensus (TASC) D lesions treated endovascularly with analysis of outcome of stent graft versus bare metal stent in patients with advanced Leriche syndrome. Method(s): A prospective case series study: over 30 months, our case study was conducted on 22 patients with TASC D lesion morphology undergoing treatment for symptomatic chronic AIOD at the Vascular Unit, General Surgery Department, Benha University Hospitals, Vascular Surgery Department, Nile Insurance Hospital and Vascular Surgery Department, Security Forces Hospital and Al-Noor Specialist Hospital, Makkah, Saudi Arabia. The patients were enrolled from April 2015 until October 2016 with a 12-month follow-up period from the last patient enrolled. SPSS, version AQ8 20.0 for Windows was used for statistical analysis. Result(s): Our study had a technical success rate of 95.5% in crossing TASC D lesion with immediate angiographic success (91%). The 12-month primary patency rate was 85% for TASC D lesions with a target lesion revascularization of 15%. Stent grafts had a higher 1-year patency rate (91.7%) versus bare metal stent (75%). The total procedure-related complications rate was 18.1% and 30 days procedure-related mortality was 4.7%. Conclusion(s): Our study shows that technical success of endovascular therapy for TASC D lesions was 95.5% with a 1-year primary patency of 85% and a complication rate of 22.7% in TASC D lesions. Utilizing more than one access with antegrade crossing the lesion through brachial access was paramount for technical success. Long-term follow-up is mandatory to support the durability of the procedure.

#### **P410**

# **Extra-Hepatic Collateral Supply to Hepatocellular Carcinoma: What a Radiologist Should Know**

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**Background:** Trans-arterial Chemo-embolization (TACE) is the most widely used palliative treatment for intermediate stage HCC. Presence of arterial supply of HCC other than the normal supply from hepatic artery, is termed extrahepatic collateral supply (ECS). If ECS is present, TACE must be done through ECS also, for achieving complete tumor response. **Method(s):** (1) To know the prevalence, sources and significance of extracapsular collateral supply (ECS) in hepatocellular carcinoma (HCC). (2) To understand the signs suggesting ECS before, during and after TACE. **Result(s):** At initial presentation, prevalence of ECS is 10-15%, however it increases as the number of TACE sessions increases. Common sources of ECS include inferior phrenic,