

Title: A third world experience of TEVAR in Trauma!

Objective: To present a case series of traumatic thoracic aortic transection

Design & Methods: Retrospective data was collected of all patients having thoracic endovascular aortic repair for traumatic aortic transection for the period, from March 1st 2015 to August 31st 2016 performed at the Eric Williams Medical Sciences Complex. Parameters investigated included patient demographics, mechanism of insult, medical history, extent of injuries including grade of aortic injury, type and size of stent used, time to intervention, duration of procedure, success rate, days post op discharge and associated complications.

Results: For the period identified four patients were treated for traumatic thoracic aortic disruption with TEVAR. All patients were male with the average age of 35.5 years and the underlying mechanism of injury was consistent with high velocity deceleration injury and injury severity score ranging from 27 to 42. A technical success rate of 100% was achieved, with zero mortality and the degree of injuries all being grade 3. The average duration of the procedure and fluoroscopy times were 125 minutes and 11.5 minutes respectively. One patient had intentional coverage of the left subclavian artery, there were no cases of mal-perfusion related complications and 3 of 4 patients were restored to their pre injury functional state. The follow up period for this study group ranges from 2 to 12 months with an average of 6.75 months.

Conclusion: Traumatic aortic transection is a rare condition and diagnosis remains an elusive one. A high index of suspicion is required when patients present with a pattern consistent with high velocity, decelerating injury. An endovascular approach in the haemo-dynamically stable remains a feasible option, however follow up in the long term is required to determine outcomes especially in the younger age group in which this pattern of injury is commonly seen.