

An emergency cardiovascular event in high speed collision: the outcome of endovascular repair of traumatic thoracic aortic aneurysm in North Emirates Cardiovascular Centers, UAE – 5 years data

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Objectives: To determine, update and improved the endovascular approaches, outcome and technical skills in traumatic thoracic aortic aneurysm with stent endograft technology, and to raise caution of a serious cardiovascular emergencies on high speed collision .

Study design: using a 5 years result of the endovascular repair (tevar) for traumatic localized transected/dissected aortic aneurysms in the North Emirates Centres of UAE. The study includes 22 patient ,with diagnosis of a traumatic thoracic aortic aneurysm who have been admitted to cardiovascular department, all patient were approached with an endovascular aortic stenting endograft repair; there were male 18/22, mean age = 38/2.2 years, female 3/22, and over all there were coexisting aaa/taa = 2/22.

Results: The results were comparable with worldwide centers, 55% of patient was asymptomatic, about 30% of patient was presented with chest pain others 15 % were refered to our centre for vague chest and abdominal pain with possible thoracic aortic aneurysm. More than 60% of patients were diagnosed as localized traumatic aortic transection aneurysm. The outcome was explained by the limited size of study regarding number of patient and period of study and most of the treated patients were an emergency cases: includes 4.7% periprocedural mortality with 9.5 % associated minor complications.

Conclusion & recommendations: High speed collision would raise the caution of a serious cardiovascular emergencies, and probably justify the need for proper radiology/conventional angiographic study. In cardiovascular field - related traumatic aortic aneurysm events, showed an evident evolving role for the endovascular repair of traumatic thoracic aortic aneurysm, near almost feasible (especially: complex type b dissecting taa/traumatic ta-transection). Evar / tevar is safe, effective and durable methods to prevent aortic aneurysm rupture and aneurysm related death. Training the dedicated nursing team and well equipped endosuite /hybrid endosuite are our objectives and will broaden our endovascular options. Have at least two back up plan prior to evar / tevar procedures.