Endovascular repair of the aorta using TEVAR after a traffic accident injury of the descending aorta

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Introduction: In the beginning, Thoracic Endovascular Aortic Repair (TEVAR) procedure with the insertion of an endovascular stent-graft in the aorta was used for the repair of degenerative aneurysms of the descending aorta, but afterwards the indications for the procedure include the whole spectrum of descending aorta pathology, and traumatic rupture.¹⁻³

Case report: 28-years-old male driver of a family car, who was injured in a car crash, was brought into the surgical emergency department by first aid medical team. The patient was conscious, in a stable circulatory and respiratory condition and immobilized. Diagnostic procedures including a CT scan revealed the following diagnoses: the rupture of the aortic arch descending part, the right occipital condyle fracture, the fracture of the atlas vertebra, multiple rib fractures on the both sides, right-sided lung contusion with a small pneumothorax and contusion of the right adrenal gland. The consultant interventional cardiologist decided to perform a percutaneous closure of a tear in the aortic wall which was life threatening injury with impeding exsanguination. An emergency interventional team was summoned and in the Cath lab of our clinic a TEVAR graft measuring 28/28X157 cm was successfully implanted. During the procedure the patient was intubated and sedated. After the procedure, the patient was transferred to intensive care unit in clinically stable condition.

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LITERATURE

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