
Updated management of thoracoabdominal aortic aneurysm

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Management of thoracoabdominal aortic aneurysm is a challenging task as it involves replacement of the aorta in those areas where major arterial branches supply vital organs. Because of the risk of rupture, all patients with TAAA greater than 6 cm in diameter are considered for surgical or endovascular repair. Different surgical techniques are used for repair of TAAA, the clamp and sew techniques emphasize the principles of operative expediency and simplicity, whereas in patients at greatest risk for development of postoperative paraplegia, distal aortic perfusion technique is advised. While for patients presented with extensive TAAA, a staged repair by elephant-trunk technique is used. Introduction of several adjuncts in surgical repair of TAAA is associated with decrease in mortality and morbidity rates. The minimally invasive aspects of the endovascular approach are particularly appealing in cases of TAAA repair because open surgery in this area is challenging with many potential sources of morbidity. However, endovascular stent graft placement requires a satisfactory landing zone. Although it has a broad spectrum of indications, endovascular repair includes several drawbacks and pitfalls: embolization due to massive manipulation, endoleak, acute stent thrombosis, side branch occlusion, and twisted stent graft are to be encountered. Postoperative paraplegia remains one of the greatest fears, not only after open surgical repair but also following endovascular repair. Several adjuncts must be used to decrease the risk of spinal cord injury during TAAA repair. A 3rd option for treating selected TAAA patients includes combination of visceral artery revascularization with endografting. Such hybrid procedure may be performed in either 1 to 2 stages depending on the extent of TAAA.