EVAR in management of Infra renal Abdominal Aortic Aneurysm

Essay
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By
Mostafa Mamdouh Labib
M.B, B.CH. 2011
Faculty of medicine, Ain Shams University

Under supervision of

Prof. Dr. Mahmoud Sobhy Khattab
Professor of General & Vascular Surgery
Faculty of medicine - Ain Shams University

Dr. Abdulrahman Mohamed Ahmed
Lecturer of General and Vascular surgery
Faculty of medicine - Ain Shams University

Faculty of medicine - Ain Shams University 2015

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AAA	Abdominal Aortic Aneurysm
ACTA2	muscle alpha actin 2
AUI	aorta uni iliac
AXR	Plain Abdominal X-Ray
CAD	Coronary artery disease
CEUS	contrast enhanced ultra sound
C F L / CLL	central flow line/ central luminal line
CIN	contrast induced nephropathy
COPD	chronic obstructive pulmonary disease
DUS	duplex ultra sound
EDS	ehlar danlos syndrome
EVAR	endovascular abdominal aortic aneurysm repair
FBN1	fibrillin 1
HRQL	health-related quality of life
IMA	inferior mesenteric artery
IVUS	intravascular ultra sound
MMPs	matrix metalloproteinases
MRA	magnetic resonance angiography
MYH11	smooth muscle myosin heavy chain 11
OSR	open surgical repair
PTFE	polytetrafluoroethylene
SCI	spinal chord ischemia
SMA	superior mesenteric artery
TEVAR	thoracic endovascular aneurysm repair

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INTRODUCTION

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Abdominal Aortic Aneurysms had always been one of the most serious causes of mortality in the past decades until recently. Thanks to the modern advances in medicine and the technological revolution in Imaging and endograft Industry, Treatment of Abdominal Aortic Aneurysms no longer imposes that high mortality risk it previously had. (**Jackson RS, et al 2012**)[1]

Four randomised controlled trials have now been published comparing EVAR with open surgical repair (OSR); the UK EVAR 1 Trial (**Greenhalgh et al. 2004**)[2], the Dutch DREAM Trial (**Prinssen et al. 2004**)[3], the US OVER Trial (**Lederle et al. 2009**)[4] and the French ACE Trial .(**Becquemin et al. 2011**)[5]

Patients at greatest risk for Abdominal Aortic Aneurysm (AAA) are men who are older than 65 years and have peripheral atherosclerotic vascular disease. A history of smoking often is elicited. Accordingly, in 2005, the US Preventive Services Task Force (USPSTF) recommended ultrasonography screening in men aged 65-75 years who had ever smoked. As of June 2014, these recommendations were being updated on the basis of evidence from a 2014 study. (**Guirguis B, et.al 2014**)[6]

Not all patients with an AAA are suitable for endovascular repair. The most common reasons to reject a patient based on anatomical configurations include Visceral and renal supply, Diameter of the proximal neck, angulation and conical nature of the proximal neck as well as calcification and mural thrombosis in it. (**Sternbergh WC III, et al 2002**)[7]

EVAR (Endovascular Abdominal Aortic Aneurysm Repair) is now a commonly available option for a growing population of patients requiring treatment for AAAs. Some advantages of EVAR over traditional open surgery include shorter hospital stays, fewer postoperative complications, and greatly reduced recovery time; the treatment technique may also result in less operative blood loss. (**Jackson RS, et al 2012**)[1]

New devices with fenestrations and branches have increased the number of patients who are good candidates for EVAR, reducing the population of individuals who would otherwise be resigned to “watchful waiting” for their aneurysms. Recent research now demonstrates that EVAR offers reduced mortality rates compared with open repair. (**Jackson RS, et al 2012**)[1]

Historical Perspective