Journal of Pediatric Cardiology

Abstract

Endovascular versus Open Surgical Repair for Isolated Ruptured Descending Thoracic Aorta: A Systematic Review and Meta-Analysis

Amer Harky, Francesca Gatta David Bleetman, Peter Erekson, Grace Chaplin, Beverly McCarthy, Shirish Ambekar, Neil Roberts, Aung Oo

Abstract:

Objective:

The purpose of this study was to compare clinical outcomes between open and thoracic endovascular aortic repair (TEVAR) in isolated ruptured descending thoracic aorta.

Methods:

A comprehensive electronic search was undertaken to identify all published data comparing open versus endovascular repair in ruptured descending thoracic aorta. Databases where evaluated to March 2018.

Results:

A total of 29,133 patients were analysed in 19 articles. Mean age was similar in both group of patients (54.6±12.8 yrs vs 54.6±13.5 yrs, p=0.19). Shorter ICU and total hospital stay in TEVAR (6.9±5.9 vs 9.1±6.6 days, p=0.003 and 16.5±8.9 vs 19.8±10 days, p=0.009 respectively). Paraplegia and stroke were higher in TEVAR with no statistical significance (2.5% vs 1.6%, p=0.47, and 1.7% vs 0.84%, p=0.62 respectively). There was also higher rate of re-intervention at one year in the TEVAR (p=0.001). While, a lower in-hospital mortality noted in TEVAR (6.5% vs 10.2% respectively, p=0.003), but no statistical difference in mortality rates at one and five years (p=0.51 and p=0.33 respectively).

Conclusion:

TEVAR repair of thoracic aortic aneurysm gives better perioperative outcomes and lower in-hospital mortality, however no difference in mortality at one and five years at the expense of requirement for higher re-intervention rates at one year.

Biography:

Francesca Gatta is a Foundation Year 2 Trainee currently working in Acute Medicine at Hull Royal Infirmary and

will subsequently rotate to General Surgery and GP. She is planning to apply for the Cardio-Thoracic Surgery run-through programme in November 2019 and has a special interest in Congenital Cardiac Surgery. Francesca graduated in Medicine and Surgery in Rome, Italy, in 2017 and moved to the UK the following year to start a job as FY1 Doctor. She spent 2 years in Adult Cardiac Surgery and 1 year in Paediatric Cardiac Surgery as Elective Placement during Medical School and 1 year post-graduation in Paediatric Cardiac Surgery. She has been working on some projects in order to obtain publications in Cardiac Surgery and, therefore, boost her CV.

Publication of speakers:

1. Dake MD, Miller DC, Semba CP, Mitchell RS, Walker PJ, Liddell RP, et al. Transluminal placement of endovascular stent-grafts for the treatment of descending thoracic aortic aneurysms. N Engl J Med 1994;331:1729–34.
2. Scali ST, Goodney PP, Walsh DB et al. National trends and regional variation of open and endovascular repair of thoracic and thoracoabdominal aneurysms in contemporary practice. Journal of Vascular Surgery 2011;53:1499–505. [PMC free article] [PubMed] [Google Scholar]
3. Walker KL, Shuster JJ, Martin TD et al. Practice patterns for thoracic aneurysms in the stent graft era: health care system implications. Annals of Thoracic Surgery 2010;90:1833–9. [PMC free article] [PubMed] [Google Scholar]

Citation: Fabiana Tortora; Hydroxytyrosol decreases phosphatidylserine exposure and inhibits suicidal death induced by lysophosphatidic acid in human erythrocytes; Cardiology Summit on 2020; March 2020 | London, UK