Overview of Endovascular Aortic Aneurysm Repair

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Disclosures

• I have no conflicts of interest
Charity Hospital
New Orleans, LA
Aortic Aneurysms

Rudolph Matas
Aortic Aneurysms

Charity Hospital
New Orleans, La
Aortic Aneurysms

• May 2, 1940 – American Surgical Association
  • Reported 620 operations for aneurysm
  • 101 operations treated by suture endoaneurysmorrhaphy
  • Operative mortality of 4.3%
Aortic Aneurysms

Wiring of Aneurysms
Aortic Aneurysms
Juan Parodi
1991

Jeffry Kreamer
Sept. 10, 1986
(patent application)
Endovascular Surgery
Endovascular Surgery

The approach of some Vascular Surgeons
Vascular Surgery
Endovascular Surgery

Complex aortic disease

- High-risk co-morbidities
- Aneurysm location
- Anatomic issues
- Patient body habitus
Endovascular Surgery
P5014 PALMAZ STENT
GOLD EDGE MARKER
TAPERED PTFE GRAFT
P5014 PALMAZ STENT
DELIVERY CATHETER
MODIFIED PARODI-PALMAZ SYSTEM
Endovascular Surgery
Endovascular Surgery
Endovascular Surgery
Completion angiography

Courtesy of Gustavo Oderich
Endovascular Surgery

Results –

• Mortality
  • Open AAA repair 1% - 5%
    • Reoperation 10%
  • EVAR 1% - 2%
    • Reoperation 6%

• Open ThAAA repair 3% - 9%
  • Paraplegia 3% - 7%
• F-BEVAR (Oderich -127 pts.) 0%
  • Paraplegia 1.6%
  • 1 year survival 96%
Endovascular Surgery

• Summary
  • Endovascular repair can provide an option in the management of some complex aortic disease
  • However, common surgical complications can still occur and must be carefully assessed and corrected
Endovascular Surgery

Summary

• Repair of aortic aneurysms does not have to be either open or endovascular

• In some patients, a combination of open and endovascular repair may provide the best option for the patient
Endovascular Surgery

Summary

• Improvements in technology and increasing experience of vascular surgeons will allow endovascular repair of aneurysms with even greater safety in the future
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New Cardiovascular Horizons
THE PERIPHERAL EVENT OF THE YEAR