Debate: Definitive excisional graft removal is a must for all infected aortic grafts and endografts

Colin D Bicknell
Clinical Senior Lecturer and Consultant Vascular Surgeon
Imperial College London, UK

DISCLOSURES

- Medtronic: Consultancy, Speakers fees, travel and conference fees
- Orzone: Institutional level capital funding
- Bolton Medical: Consultancy, speakers fees, travel and conference fees
- Gore: Travel and conference fees

INFECTED AORTIC STENT GRAFTS

A significant clinical issue
Incidence increasing
Difficult management

Present (or are diagnosed) late, often significant co-morbidity and malnourished

OPTIONS FOR TREATING GRAFT INFECTION

Options:
- Graft excision
  - In situ bypass
    - Vein
    - Dacron
    - Bovine or similar
    - Human aorta
  - Extra-anatomical
- Conservative measures
  - Antibiotics
  - Drainage of sac
  - Stent for emergencies

OPTIONS FOR TREATING GRAFT INFECTION

Options:
- Graft excision
  - In situ bypass
    - Vein
    - Dacron
    - Bovine or similar
    - Human aorta
  - Extra-anatomical
- Conservative measures
  - Antibiotics
  - Drainage of sac
  - Stent for emergencies
EARLY MORTALITY

The pooled overall follow-up mortality was 45.7% (95% CI 26.4% to 65.8%) vs 56.6% (95% CI 30.8% to 83.3%) for the patients receiving conservative treatment.

AORTO-ENTERIC FISTULA - RECURRENT SEPSIS

STENTING FOR EMERGENCY TREATMENT
An interesting finding in a study by Chaufour et al was that AEF was present in a third of patients with infected endografts. AEF is a more common finding than initially thought.

Graft infection is commonly associated with multiple interventions, providing a further nidus for infection.

In 2013, CDC published a report outlining the top 18 drug-resistant threats to the United States. Threats are categorized based on level of concern: urgent, serious, and concerning.

It has been proposed you can treat infection in vascular grafts conservatively, but the traditional teaching is removal...for a reason. If it is safe to leave the grafts in then we must provide robust evidence that leaving the stent/graft in is safe...this evidence does not exist. Anything but graft removal is palliation. Graft excision should be the aim of surgery.