WHAT IS THE BEST TREATMENT FOR AN INFECTED DESTROYED STERNUM?

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Conflict of interest

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Clinical case

Man, 66 yo

Medical background: **diabetes, obesity**, non active smoker (60 PY), dyslipidemia, ischemic cardiomyopathy with 3 primary coronary interventions

**Medical history:** Myocardial infarction
Coronary artery bypass surgery on 14/08/2015
**2 internal thoracic arteries used**

Transfere to readaptation center at **Day 12**
Incomplete wound healing at the lower part of the scar but no clinical or biological sign of infection
Clinical case

Re-hospitalization 2 days later: **Mediastinitis (Day 14)**. *Enterobacter cloacer and Pneumonia Klebsiella* on blood and bone biopsies
Antibiotic (3 months), VAC therapy

**D 68**: steel wire removal

**D 78**: cardiac massage because of cardiac arrest post atrio ventricular bloc
Pacemaker
Blood sample: epidermitis staphylococcus Meti R—> ATB

**7 months** after surgery: bone biopsy
Aureus staphylococcus, pneumonie klebsiella —> ATB

—> 10-month hospital stay
Several lines of antibiotic
Several surgeries
VAC therapy for 10 months
Would you perform a surgery to cover the defect?

Muscular/omentumal flap (which one)

Would you use material in an infected environment?
Before sternal replacement  

1 week after surgery  

3 weeks after surgery
An innovativ antibiotic loaded ceramic sternum prosthesis

Alumina porous sternal prosthesis
Interconnected porosity without dead end
Loaded with antibiotic (gentamicin/vancomycin)
No ostheosynthesis material needed
Low bacterial adhesion
Radiotransparent
Great osteo-integration
Follow up

Discharge at **D20**

Medical consultation every 6 month

—> Spirometry

- Before surgery
- 6 M
- 9 M
- 12 M
- 18 M
- 24 M
- 30 M
- Next in July 19

After 3 years of follow up, our patient is well being and at home
Ceramil sternal implant

A total biocompatible and inert implant

Implantation protected with antibiotic

Easy to implant

Surgical technique reproducible

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