



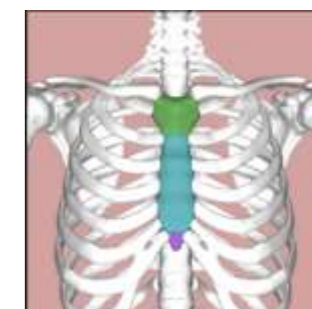
# 27th ESTS MEETING

9 JUNE - 12 JUNE 2019 • DUBLIN, IRELAND

EUROPEAN CONFERENCE ON GENERAL THORACIC SURGERY



## WHAT IS THE BEST TREATMENT FOR AN INFECTED DESTROYED STERNUM ?



Speaker: A. Chermat  
J. Tricard, A. Chermat, F. Bertin



# Conflict of interest

Meeting funding by I.Ceram society (Limoges, France)



# 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 cloacae* 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**



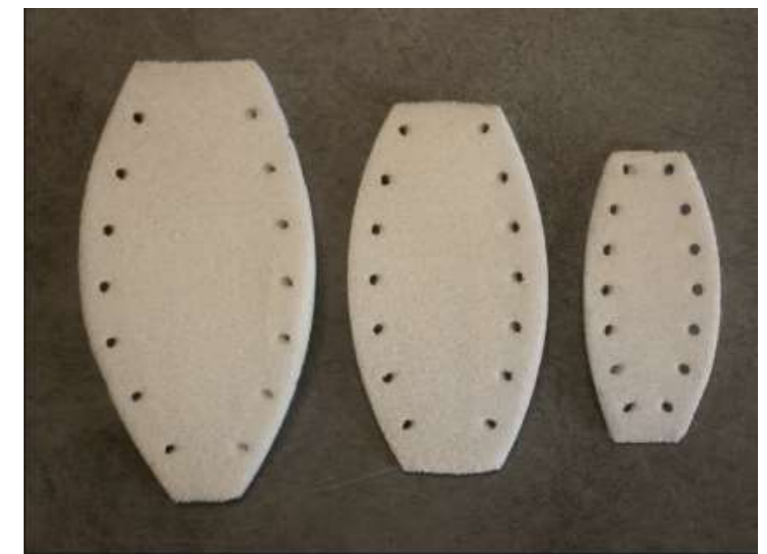
*Would you perform a surgery to cover the defect?*

Muscular/omental flap (which one)

*Would you use material in an infected environment?*



Ester technopol, European Center of Ceramics in Limoges





35-45cm



Cuff



ST



Before sternal replacement



1 week after surgery

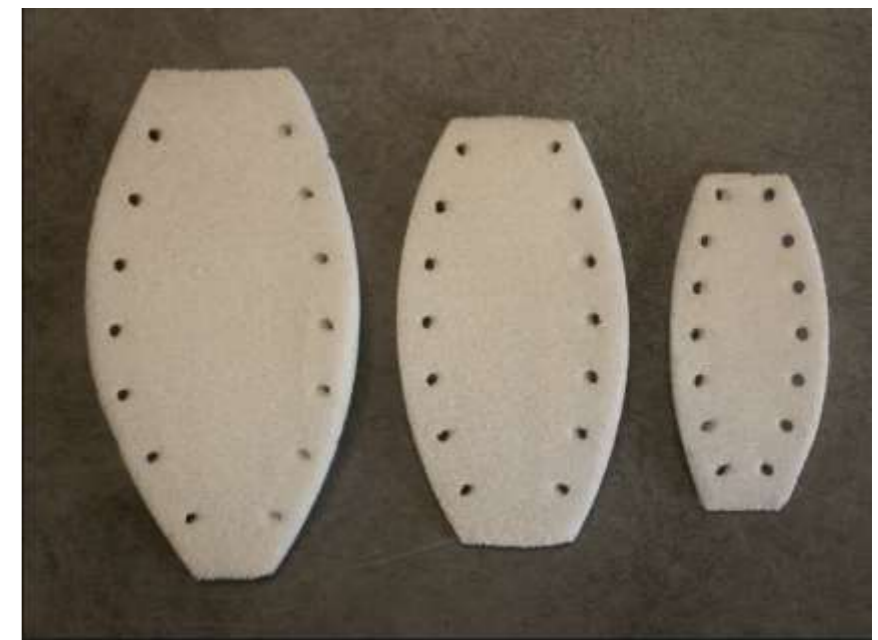
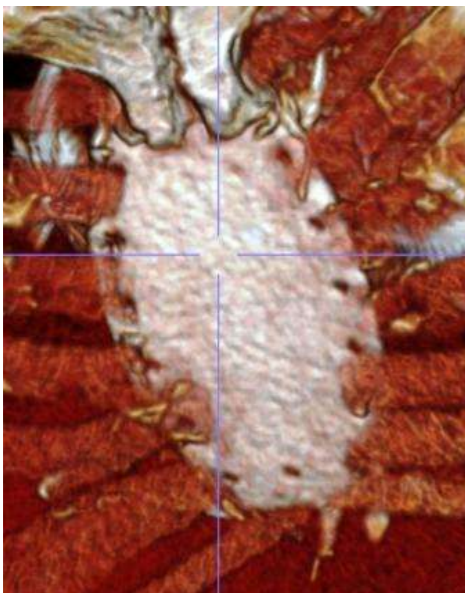
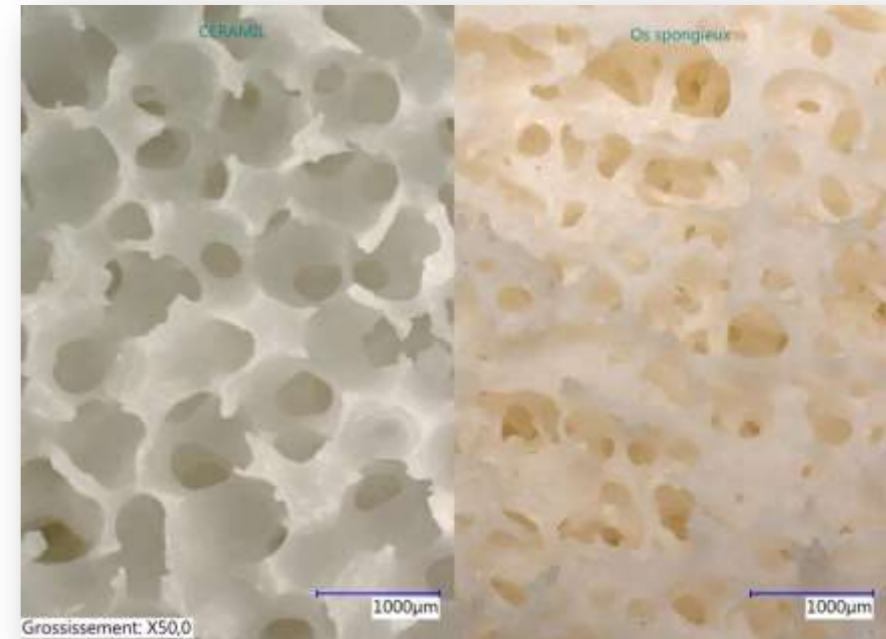


3 weeks after surgery



# An inovativ antibiotic loaded ceramic sternum prosthesis

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



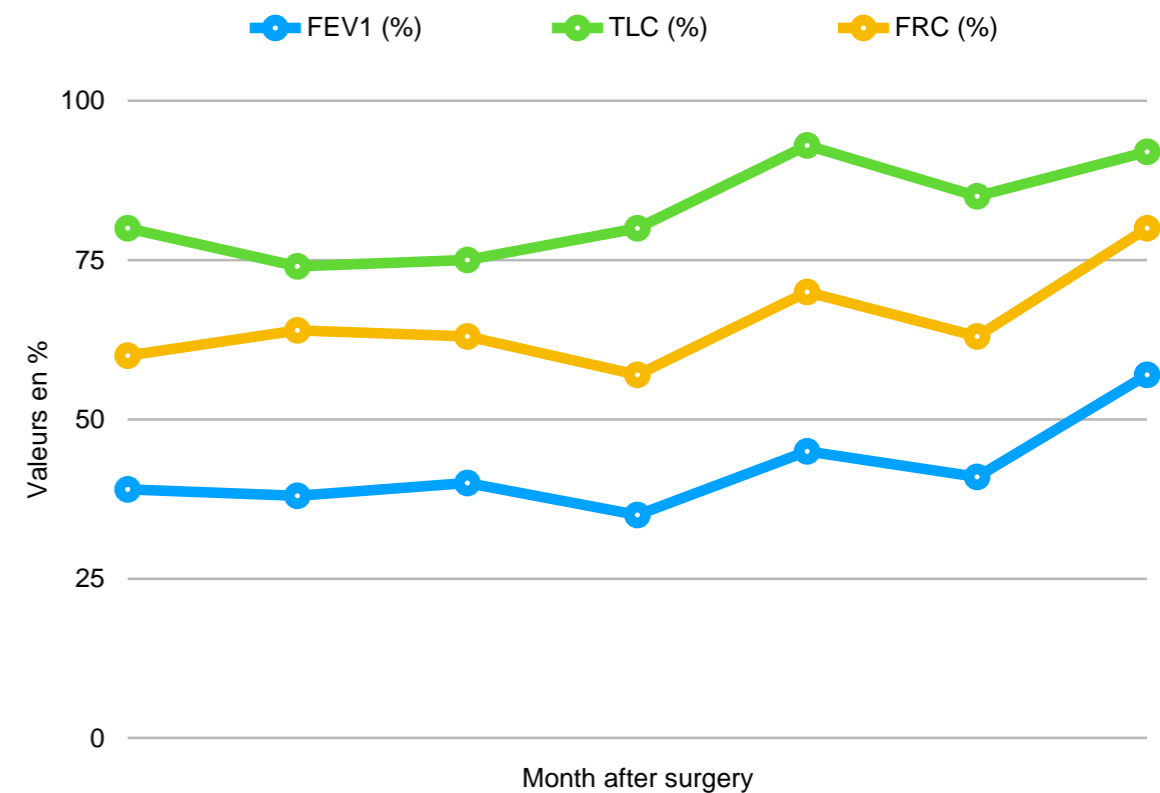
# Follow up

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

