



PUBIC OSTEOMYELITIS (PO): EPIDEMIOLOGY AND FACTORS ASSOCIATED WITH MANAGEMENT FAILURE in two French Reference Centres

Agathe BECKER, MD, Florent Valour, MD, PhD, Loic Bousset, MD, PhD, Alain Ruffion, MD, PhD, Frederic Laurent, DPharm, PhD, Eric Senneville, MD, PhD, Christian Chidiac, MD, PhD, **Tristan Ferry, MD, PhD** and Lyon BJI Study group

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BACKGROUND

- BJI: a public health issue (CRIOAc)
- **One of the less well reported BJIs:** mostly case reports
- Unclear risk of treatment failure
- Importance of multidisciplinary approach

AIM

- To describe **PO epidemiology**
- To look for factors associated with **treatment failure**

METHOD

➤ Population

- Retrospective cohort study (2003-2016)
- 2 centres: CRIOAc Lyon – Lille-Tourcoing

➤ Statistical analysis

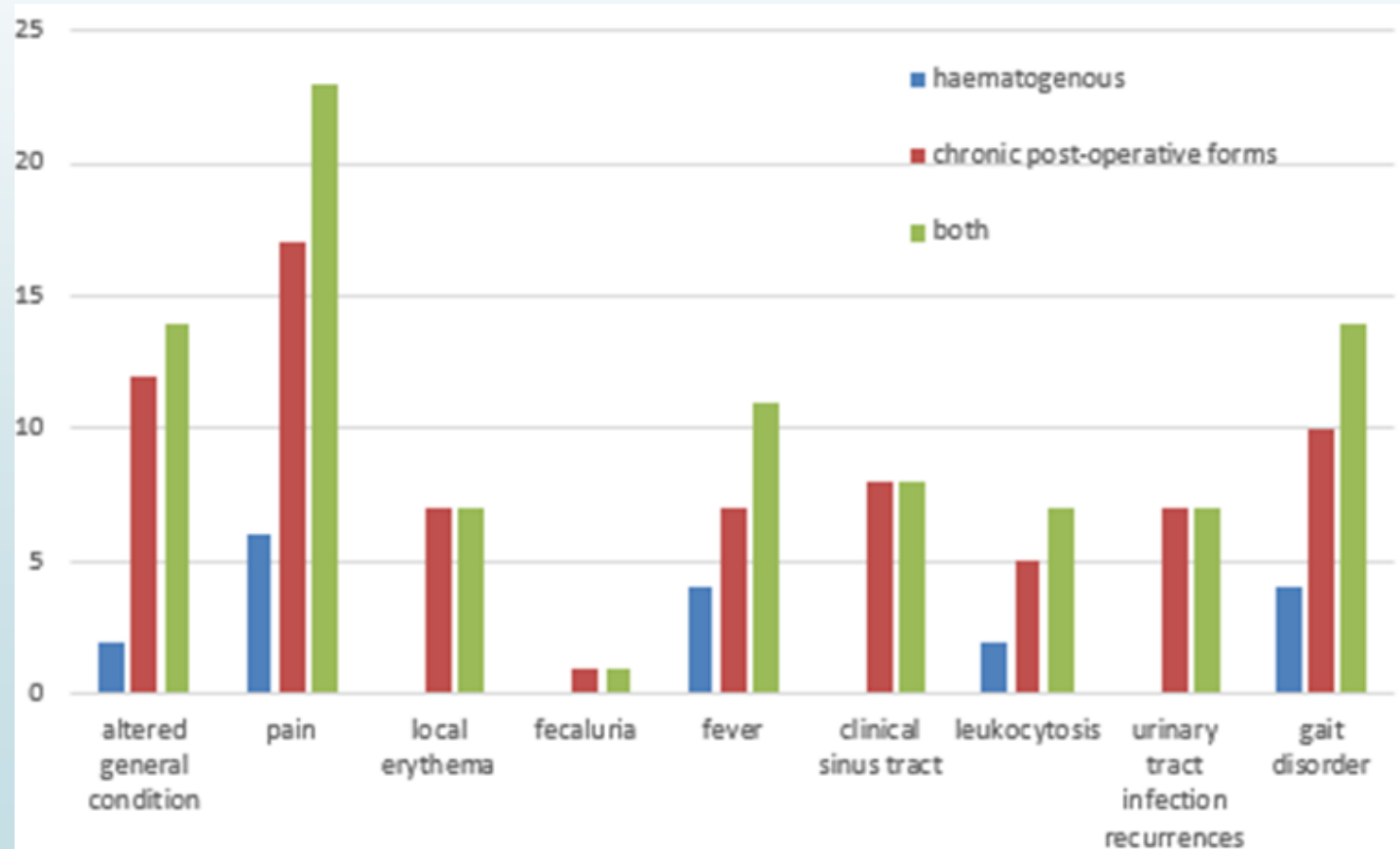
- Descriptive analysis of patient characteristics
- Rate of treatment failure
- Factors associated with treatment failure
- Univariate Cox analysis
- Kaplan-Meier curves with log-rank test

RESULTS

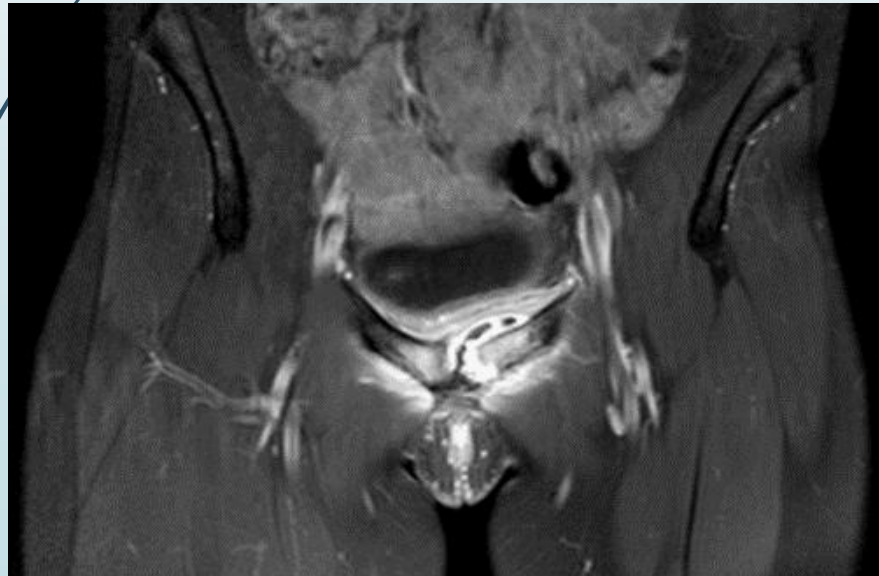
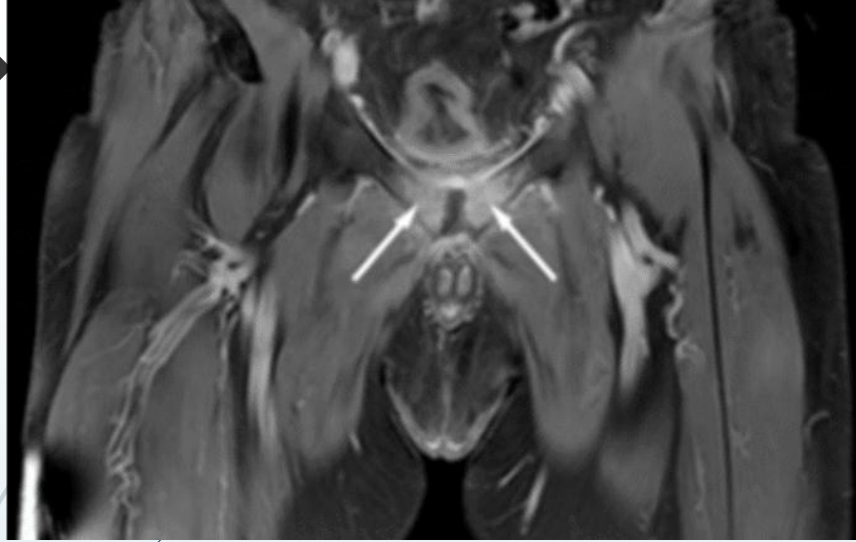
25 patients



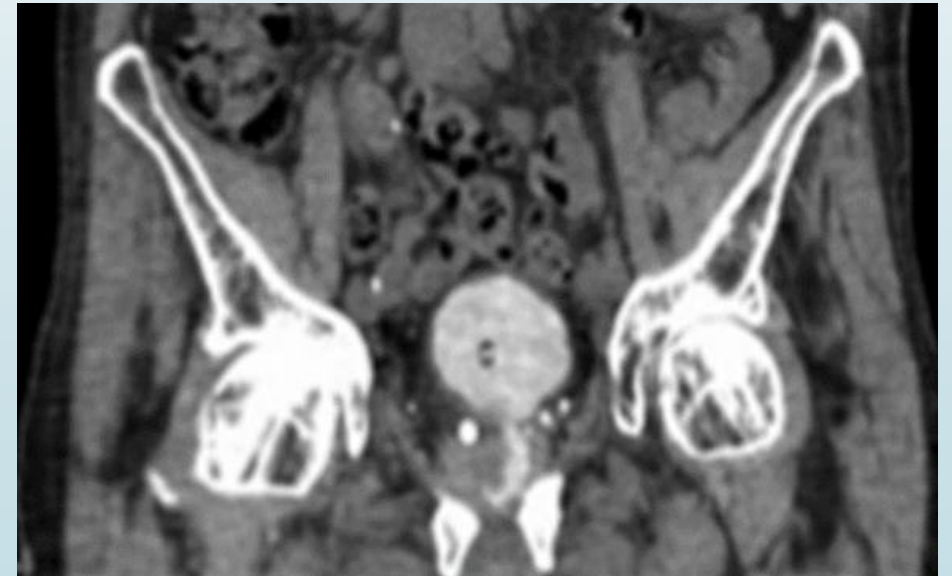
| | Total (n=25) |
|----------------|--------------|
| Age | 67 [54-71] |
| ASA | 3 [2-3] |
| Male | 19 (76%) |
| Haematogenous | 6 (24%) |
| Postoperative | 19 (76%) |
| Pelvic history | |
| Cancer | 15 (60%) |
| Pelvic surgery | 19 (76%) |
| Radiotherapy | 12 (48%) |



Haematogenous PO

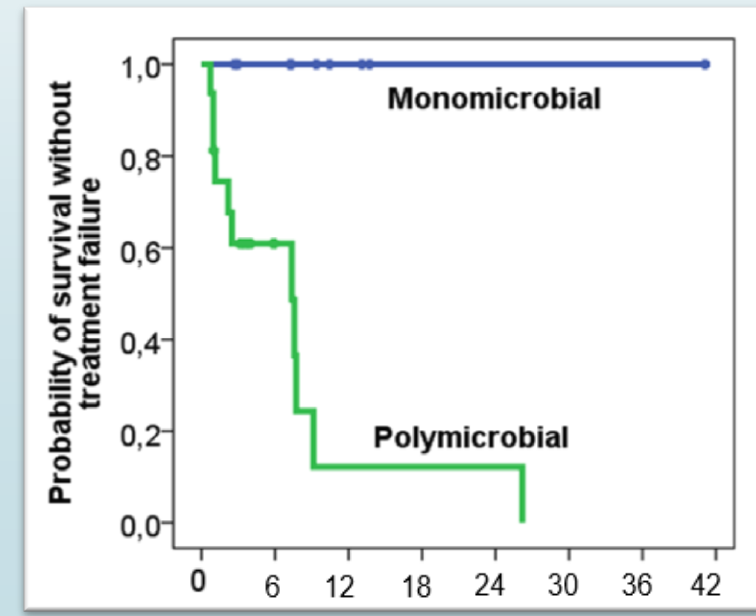
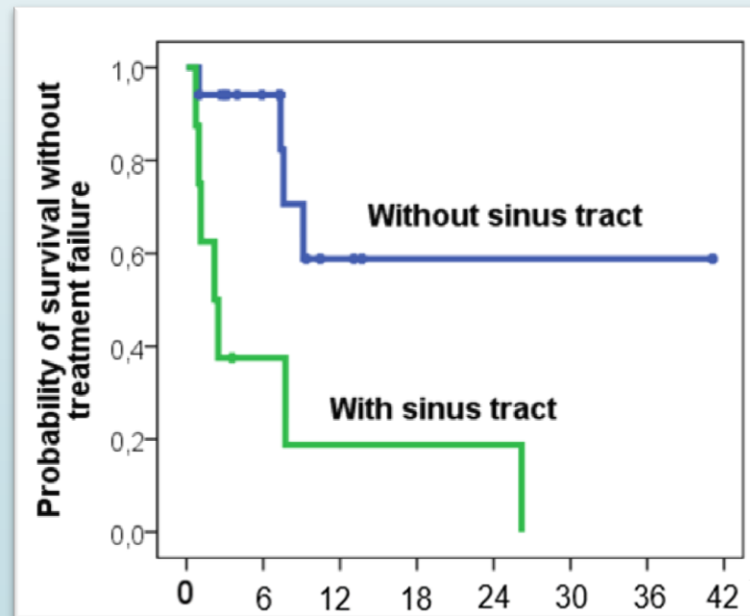
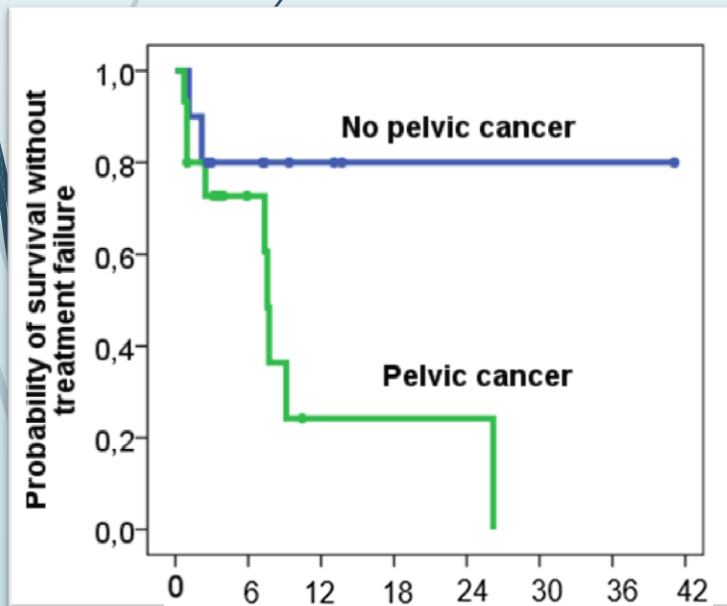


Chronic postoperative PO



Risk factors associated with treatment failure

| | Success (n=14) | Failure (n=11) | Total (n=25) | P |
|--------------------------|----------------|----------------|--------------|-------|
| Pelvic cancer history | 6 (40%) | 9 (60%) | 15 (60%) | 0.089 |
| Clinical sinus tract | 1 (12%) | 7 (88%) | 8 (32%) | 0.011 |
| Abscess | 9 (45%) | 11 (55%) | 20 (80%) | 0.343 |
| Enterobacteria | 3 (25%) | 9 (75%) | 12 (48%) | 0.072 |
| Non-fermenting GNB | 0 (0%) | 3 (100%) | 3 (12%) | 0.005 |
| Multi-resistant bacteria | 1 (12%) | 7 (88%) | 8 (32%) | 0.116 |
| MSSA | 6 (86%) | 1 (14%) | 7 (28%) | 0.169 |
| Methi-R CoNS | 2 (33%) | 4 (67%) | 6 (24%) | 0.014 |
| Polymicrobial | 5 (31%) | 11 (69%) | 16 (64%) | 0.090 |



CONCLUSION

Haematogenous PO

- Minority
- Monomicrobial *S.aureus*
- Young athletic patients without comorbidity
- No surgery if no abscess or bone sequestrum
- Favourable outcome

Chronic postoperative PO

- Predominant
- Polymicrobial, Multi-resistant
- Comorbidity, with cancer, surgery, radiotherapy
- Complex antibiotic therapy
- High risk of relapse

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definitions

PO was defined by

- a clinical or radiological sinus tract communicating with the pubis,
- and/or symptoms associated with compatible radiological signs (collections in contact with pubis, bone erosion, osteolysis, para-symphyseal fracture),
- and/or inflammatory signs on histological examination of intra-operative samples,
- and/or a reliable microbiological culture (blood culture, joint fluid or abscess aspiration, or bone biopsy taken in strict aseptic conditions).

Treatment failure was defined by :

- persistence of clinical signs despite well-conducted treatment;
- clinical relapse with the same microorganisms;
- infection recurrence with one or more different microorganisms;
- new signs of infection (abscess, sinus tract) in the same area, without microbiology.