

Innovation dans l'antibiothérapie locale

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Centre Interrégional Rhône-Alpes Auvergne
de Référence des IOA complexes



Antibiotiques locaux

Quand le chirurgien orthopédiste « joue » à l'infectiologue



Antibiotiques locaux

IOA = infection locale

Légitime de vouloir agir localement



- Billes de gentamicine
- Chirurgie non optimal
- Faible relargage local
- Sans antibiothérapie systémique

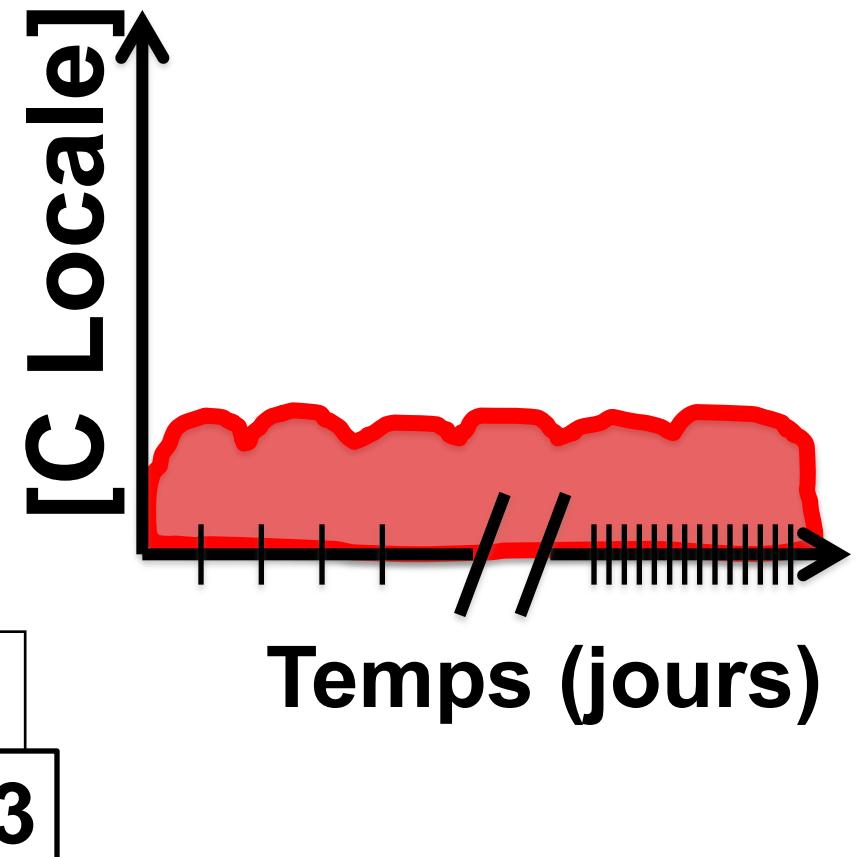
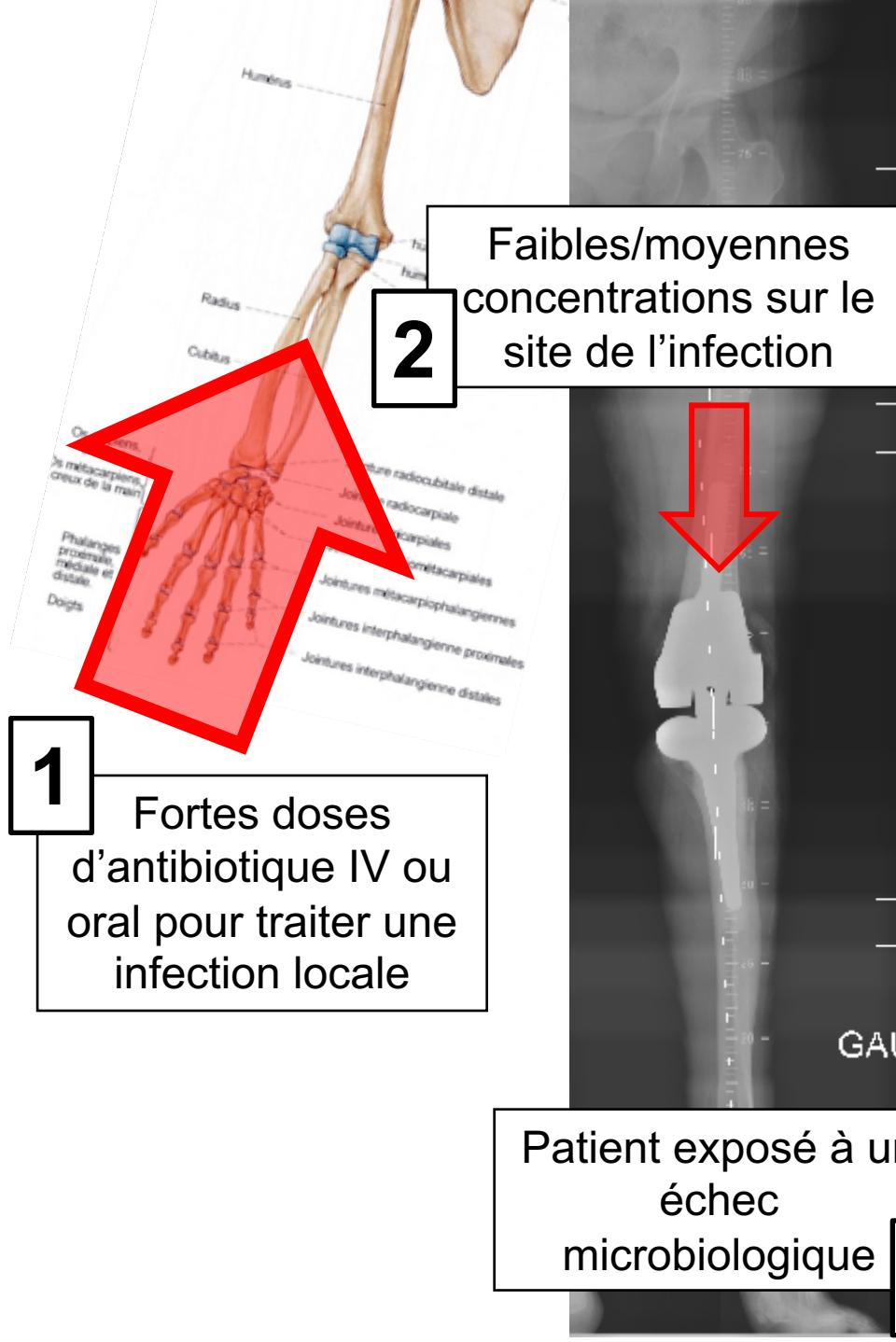


Echec

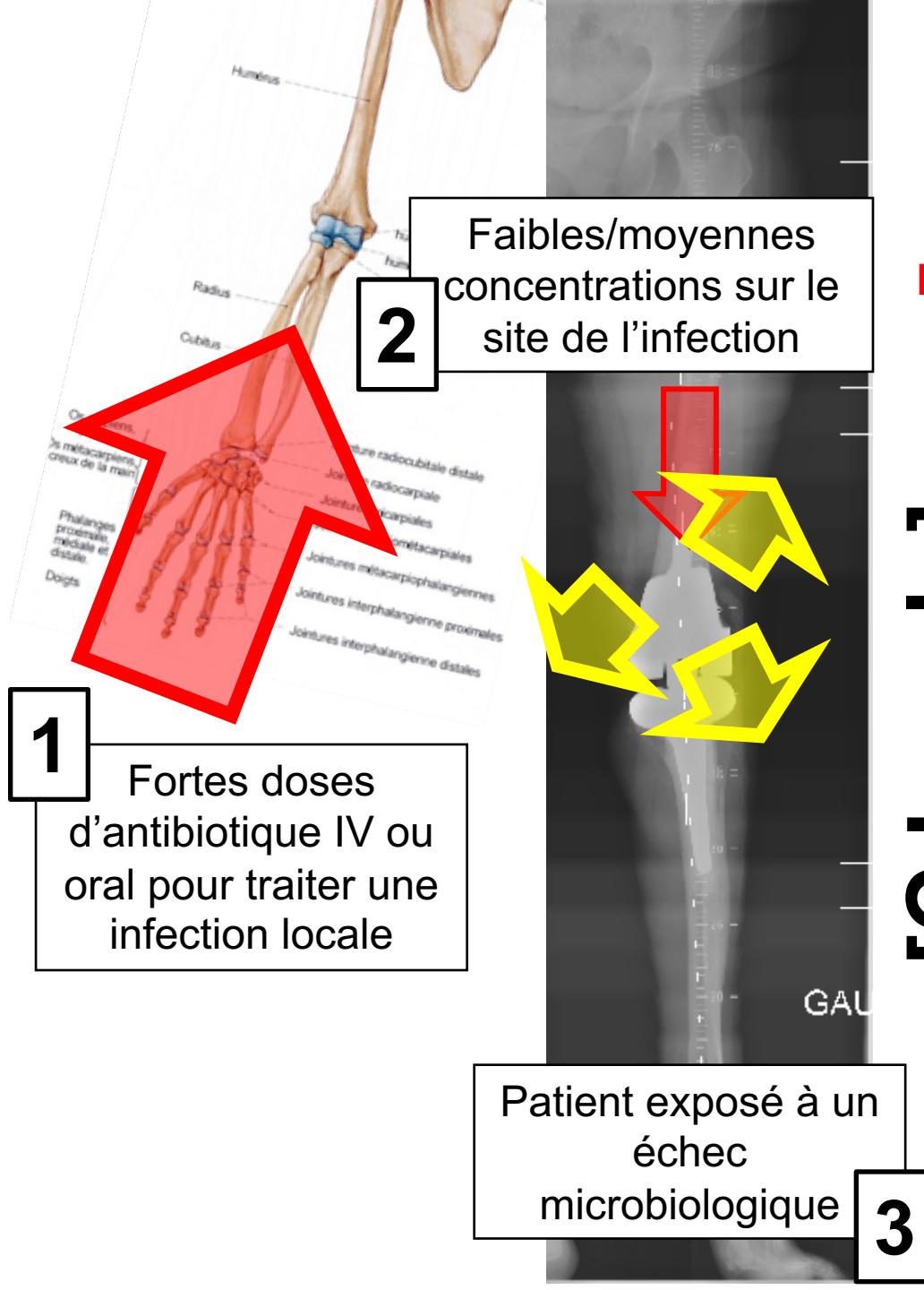


**Acquisition
de résistance**

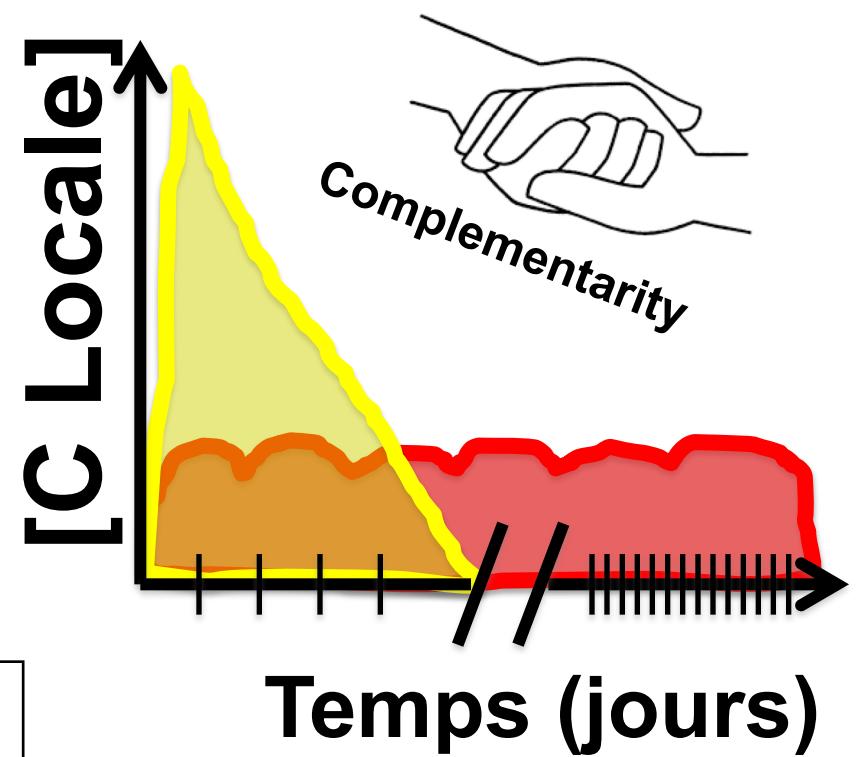
Rationnel pour l'utilisation d'antibiotique(s) locaux



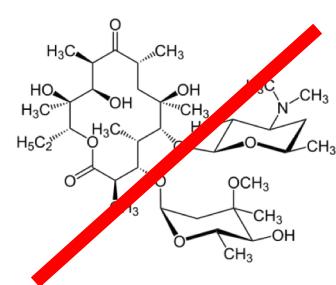
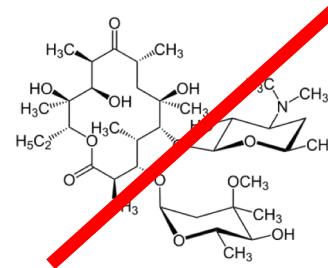
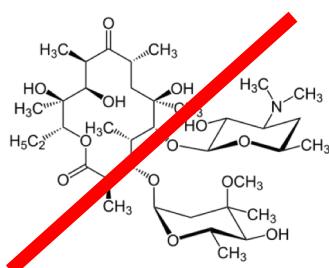
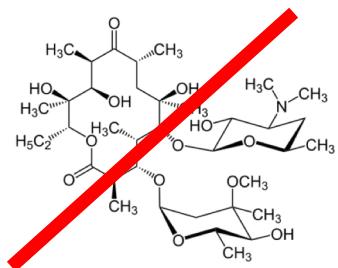
Rationnel pour l'utilisation d'antibiotique(s) locaux



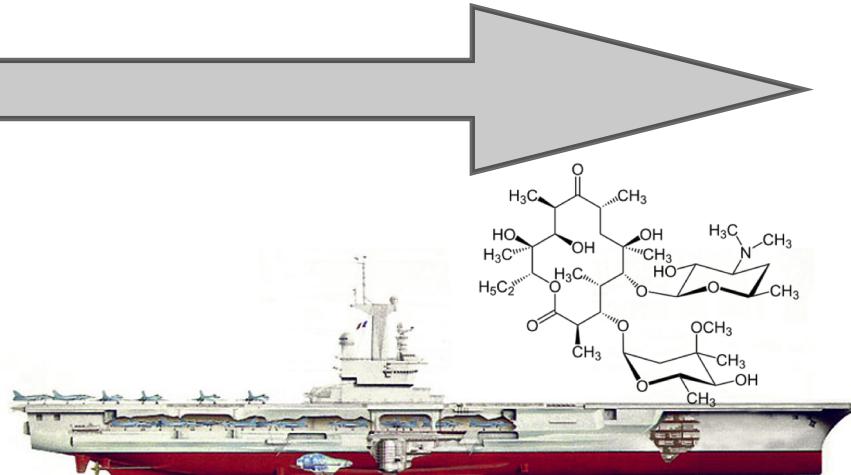
En plus des antibiotiques systémiques
Pour obtenir de fortes [C] locales



Durée de vie des antibiotiques



Temps



Transporteur

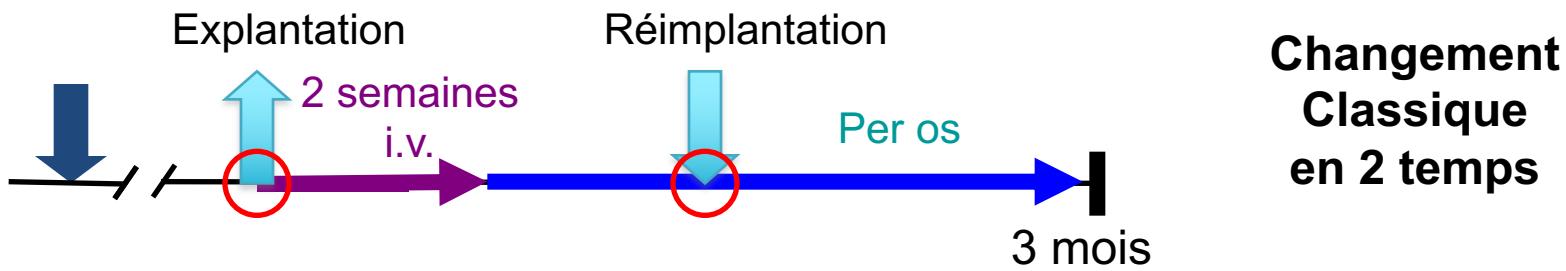


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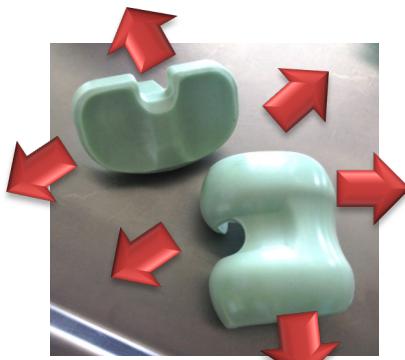


Ciment
PMMA

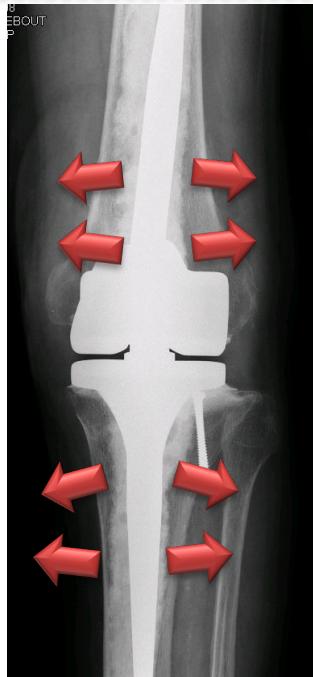
Stratégie médico-chirurgicale au cours des infections de PTG



CRIoAc
LYON



Ciments aux antibiotiques

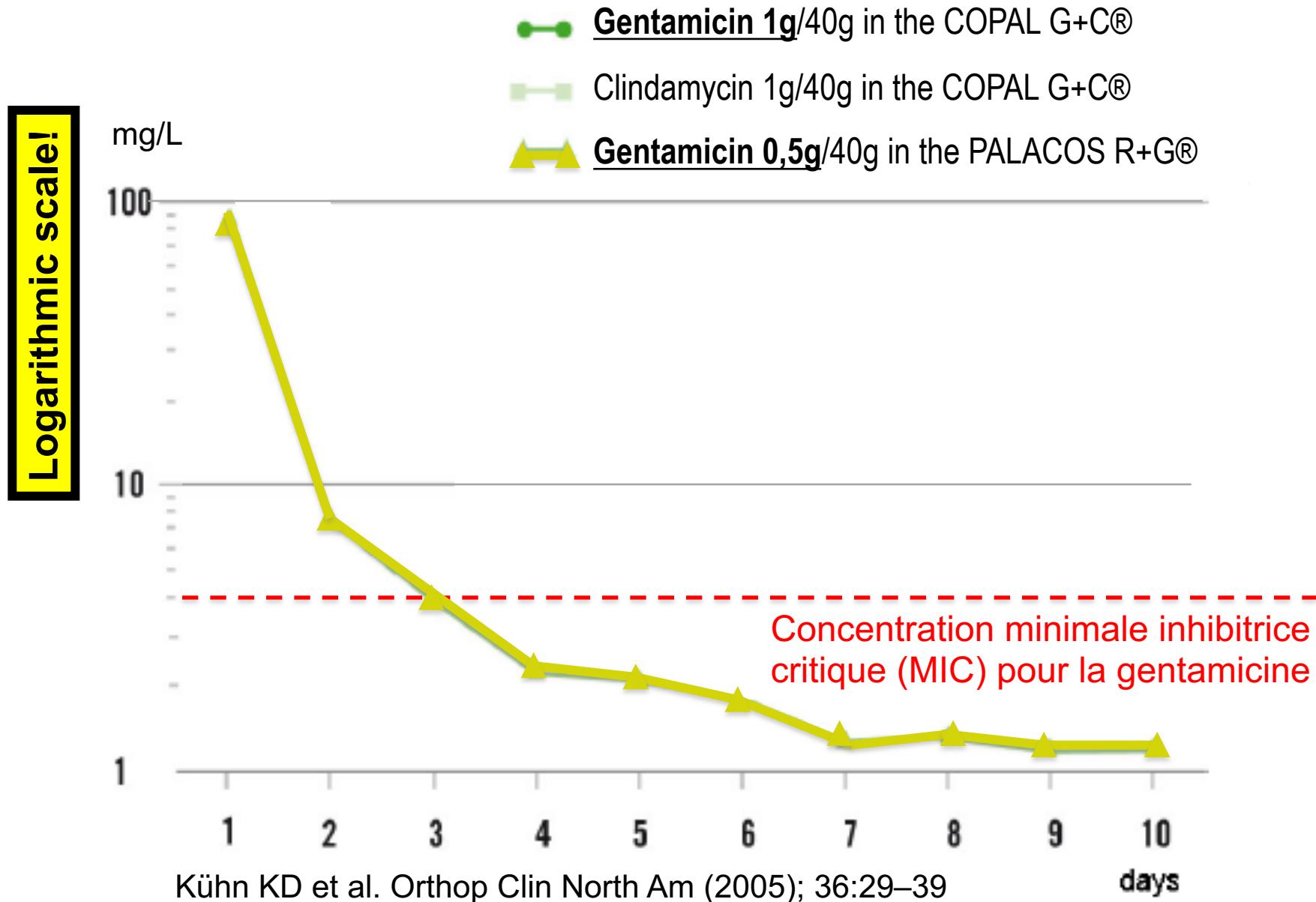


Plusieurs objectifs

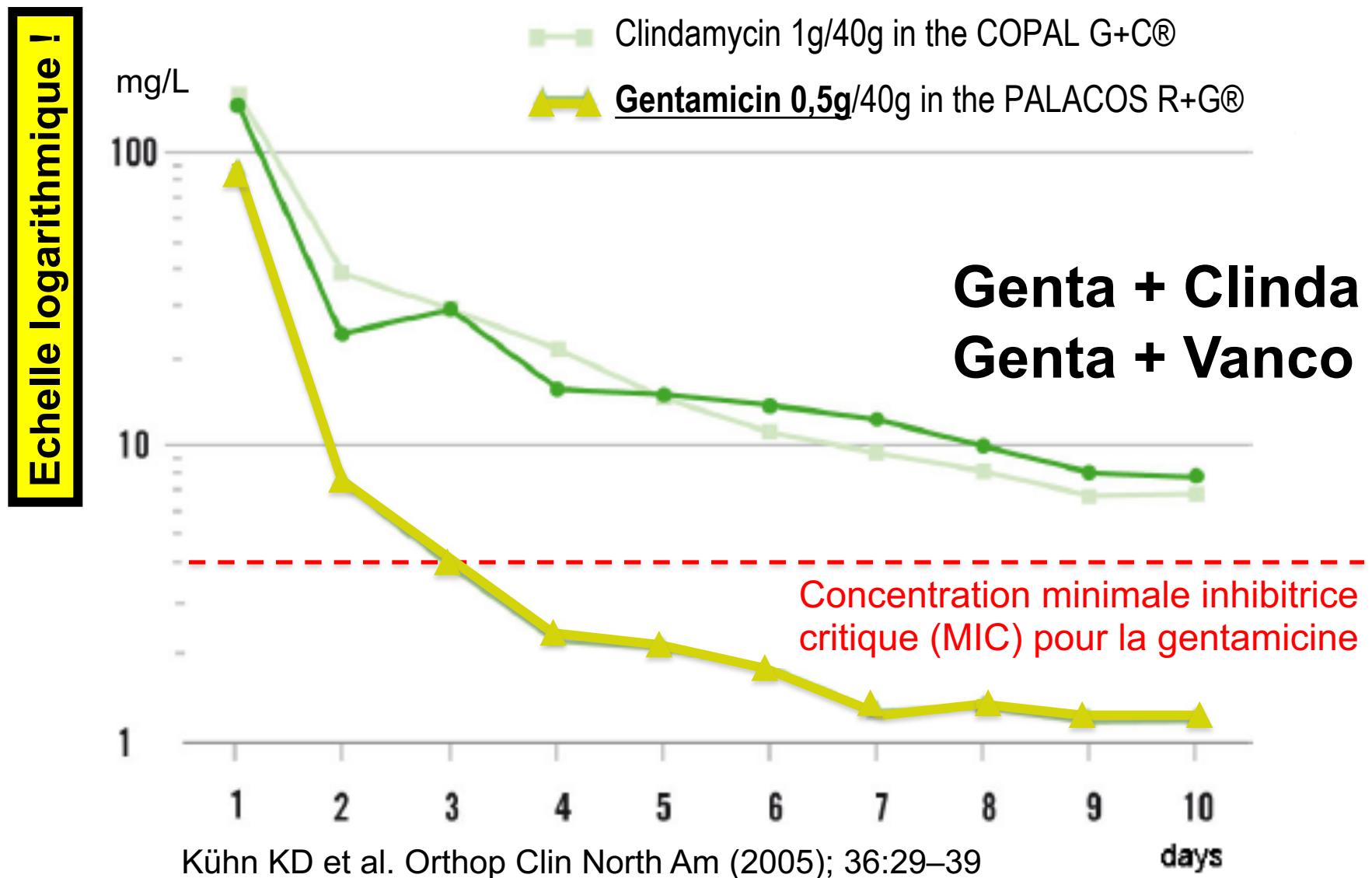
- Spacer articulé**
- Pour traiter l'infection**
- Pour prévenir la surinfection**
- Pour faciliter la rééducation**

- Ciment utilisé pour la réimplantation**
- Pour traiter l'infection**
- Pour prévenir la surinfection**
- Pour fixer la prothèse**

Concentrations locales

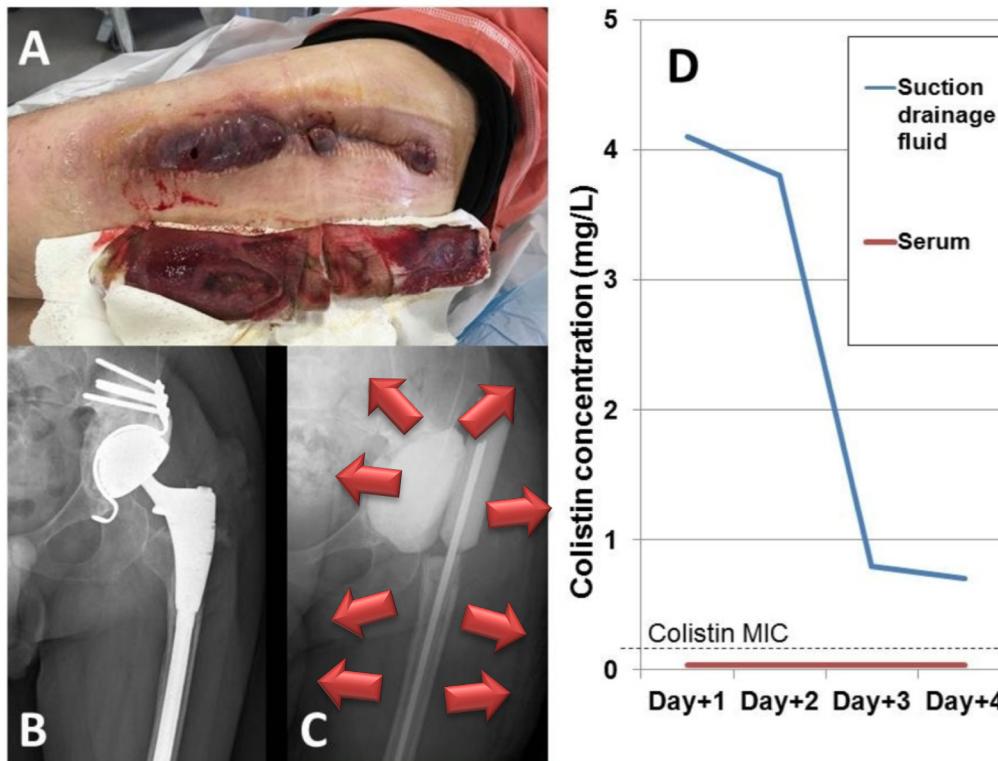


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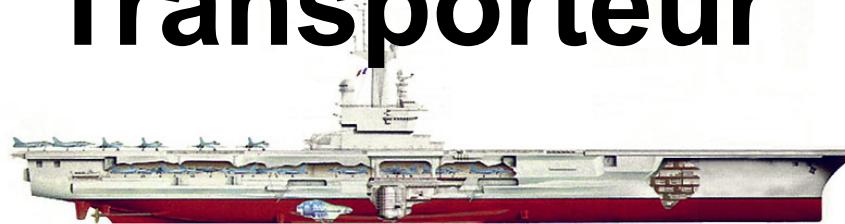


Gentamicin–vancomycin–colistin local antibioticotherapy in a cement spacer in a 54-year-old haemophilic patient with relapsing plurimicrobial severe prosthetic joint infection

Tristan Ferry,^{1,2,3,4} Romain Desmarchelier,⁵ Sophie Magréault,^{6,7} Florent Valour,^{1,2,3,4} on behalf of the Lyon BJI Study group

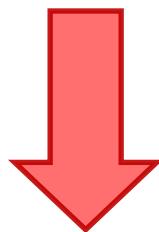


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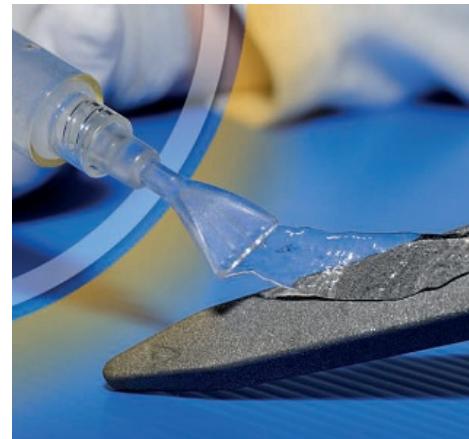


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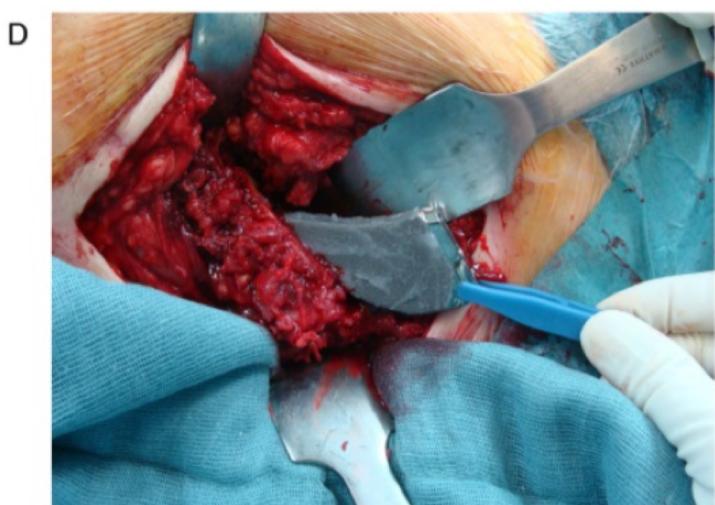
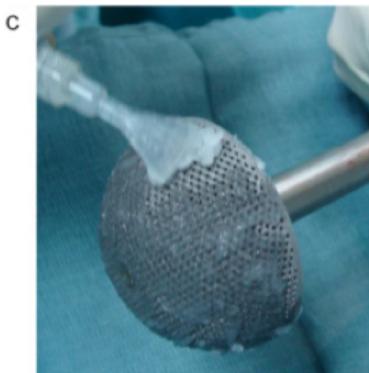
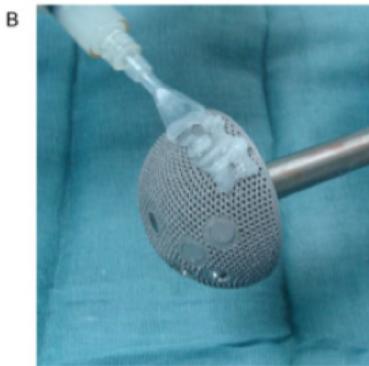
Ciment
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Hydrogel

Does an Antibiotic-Loaded Hydrogel Coating Reduce Early Post-Surgical Infection After Joint Arthroplasty?

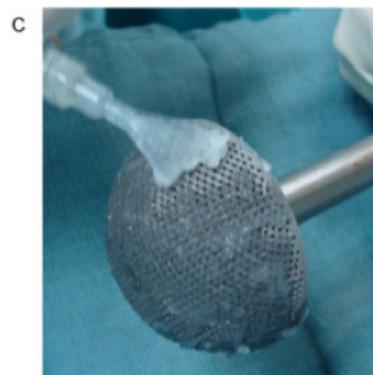
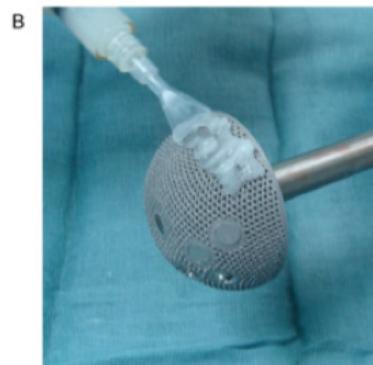
Carlo Luca Romanò¹✉, Kostantinos Malizos², Nicola Capuano³, Riccardo Mezzoprete⁴, Michele D'Arienzo⁵, Catherine Van Der Straeten^{6,7}, Sara Scarponi¹ and Lorenzo Drago^{8,9}



Does an Antibiotic-Loaded Hydrogel Coating Reduce Early Post-Surgical Infection in Total Arthroplasty?

Carlo Luca Romanò¹✉, Koenraad D'Arienzo⁵, Catherine Van

ete⁴, Michele



		Treated	%
Joint	Hip	153	80.9
	Knee	36	19.0
Type of surgery	Primary	135	71.8
	Revision	54	28.2
Systemic prophylaxis	Cefazolin	69	48.2
	Cefazolin + Glycopeptides	29	20.3
	Cefazolin + Vancomycin	46	38.3
	Vancomycin + Meropenem	45	31.5
DAC volume (mL)	Mean ± SD	8.3 ± 2.7	
	Min - Max	5 - 10	
DAC + vancomycin 5%		100	52.9
DAC + gentamicin 3.2%		70	37.0
DAC + vancomycin 2% + meropenem 2%		15	7.9
Other associations		4	2.1

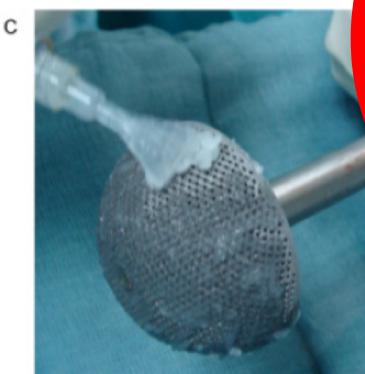
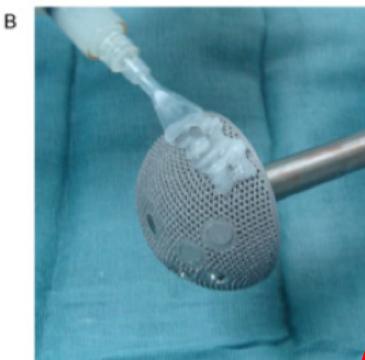


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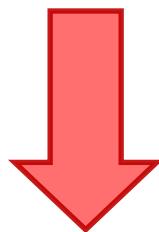
rete⁴, Michele



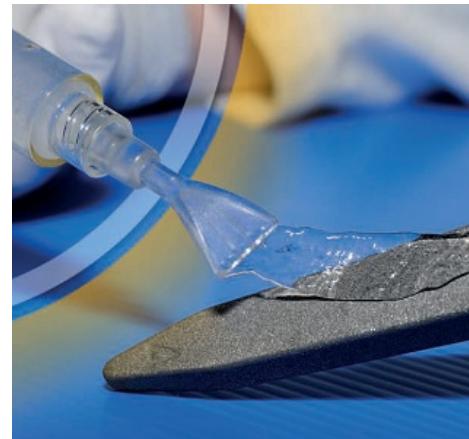
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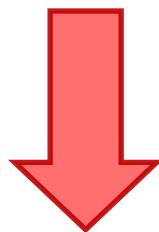
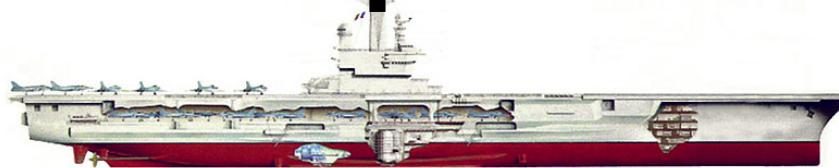


Ciment
PMMA

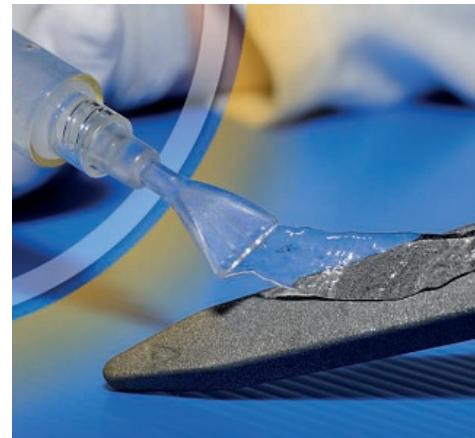


Hydrogel

Transporteur



Ciment
PMMA



Hydrogel

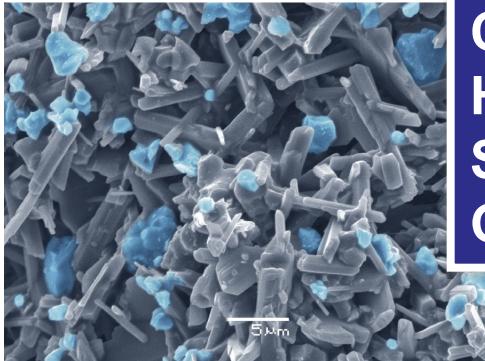


Pâte

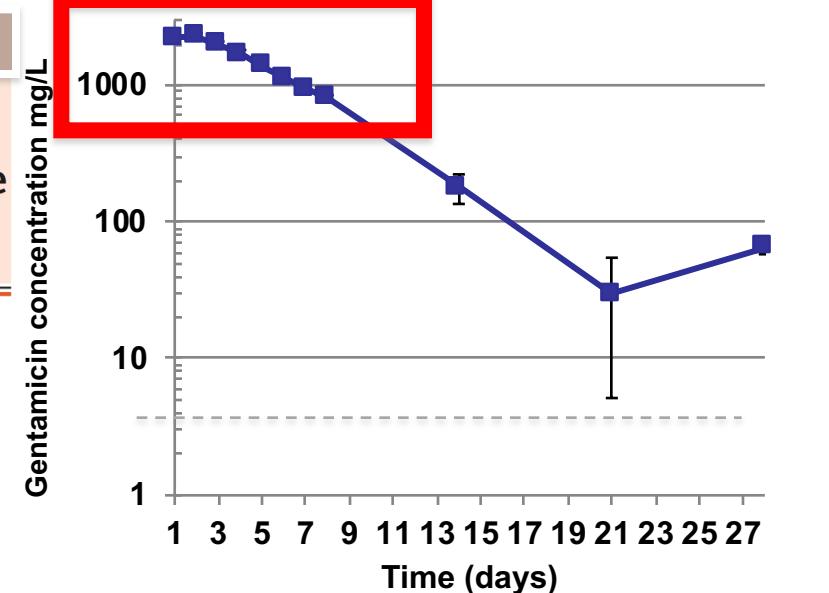


Pharmacokinetics of gentamicin eluted from a regenerating bone graft substitute

IN VITRO AND CLINICAL RELEASE STUDIES



CERAMENT G™
Hydroxyapatite
Sulfate de calcium
Gentamicine



Régénération osseuse, Résorbable, sous forme de pâte

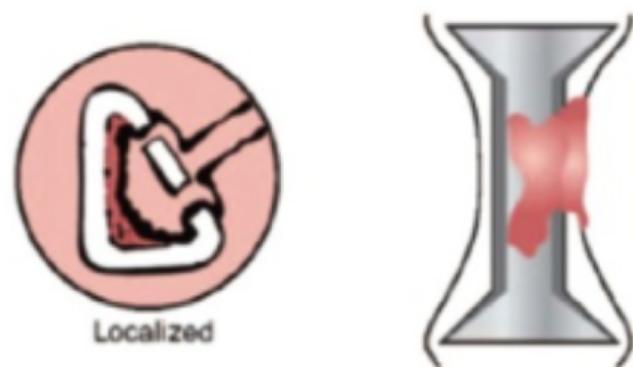
■ GENERAL ORTHOPAEDICS

Single-stage treatment of chronic osteomyelitis with a new absorbable, gentamicin-loaded, calcium sulphate/hydroxyapatite biocomposite

A PROSPECTIVE SERIES OF 100 CASES

Mac Nally M. et al.

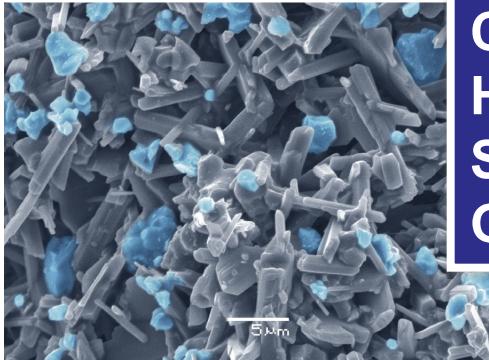
Oxford Bone infection unit



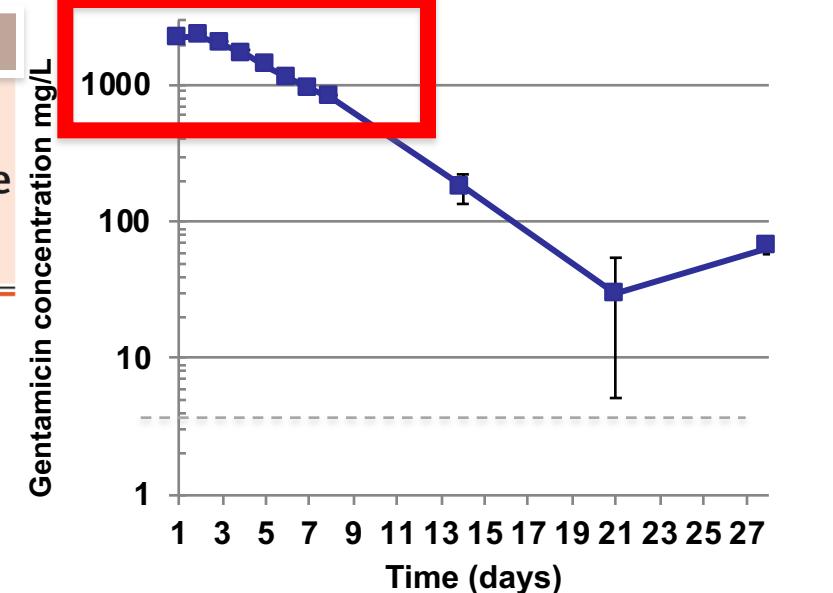


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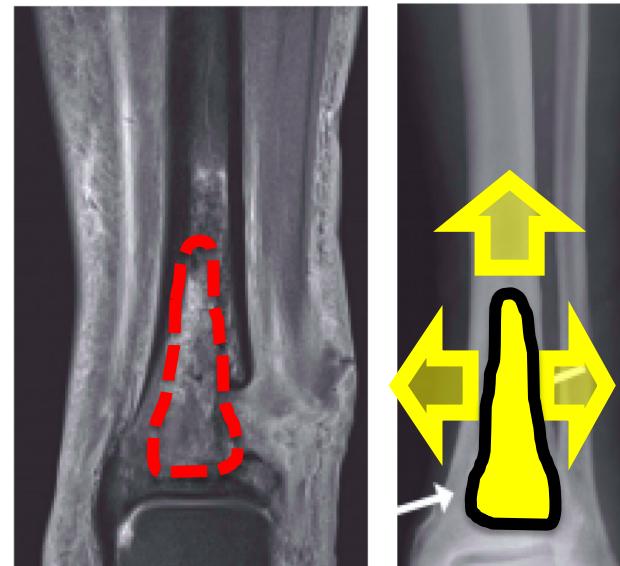
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Chirurgie en 1 temps

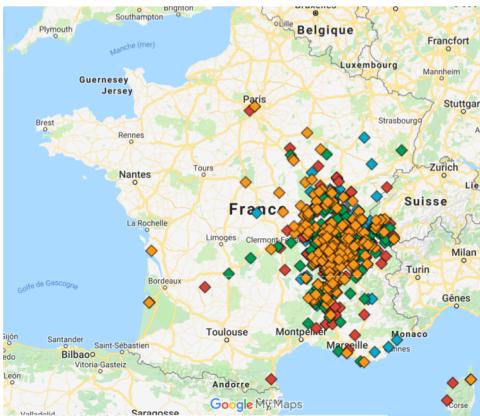
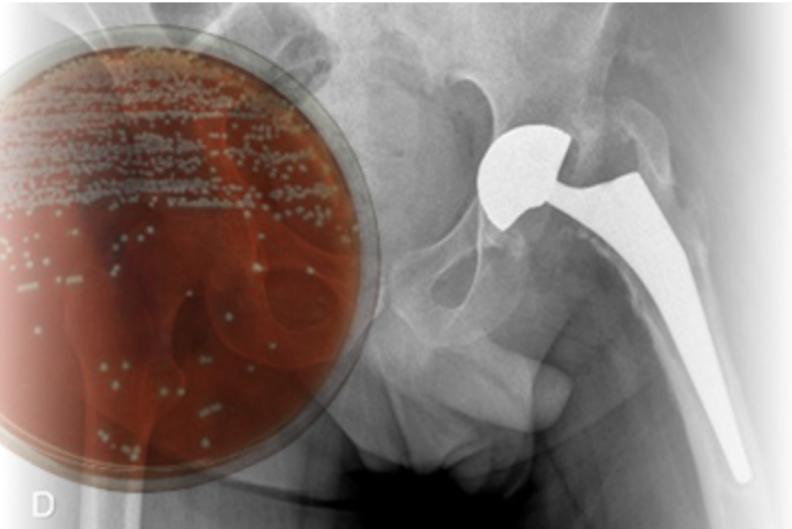


Antibiothérapie locale

- Progrès considérables ces dernières années
- Nombreux « transporteurs »
- Combinaisons d'antibiotiques
- Fortes doses, exposition prolongée
- Importance des RCP CRIOAc pour déterminer la meilleures stratégie médico-chirurgicale
- Et choisir ensemble 🤝 😊 🤝 le bon antibiotique !



<http://www.crioac-lyon.fr>



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