

Medical Education Series

Chronic Osteomyelitis - Tibia

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CHRONIC OSTEOMYELITIS - TIBIA

PATIENT HISTORY

A 22-year old male presented with a long standing history of chronic osteomyelitis of his right tibia. He previously had an open fracture which was managed in Cuba, and was initially treated with an external fixator and then converted to plate and screws for definitive fixation and the fracture healed. He then underwent removal of hardware due to a recurrent infection and was treated with antibiotics at that time. He presented to our unit years later with symptoms of chronic osteomyelitis.

DIAGNOSIS

Chronic osteomyelitis of the right tibia.

TREATMENT

Patient presented to our unit with pain in his right tibia and a draining sinus from his soft tissues. He was managed initially with an irrigation and debridement of his right tibia osteomyelitis, including his intramedullary canal, and excision of his sinus tract. The samples were sent for culture and pathology. The following week, he underwent a second irrigation and debridement of the right tibia including intramedullary reaming and then CERAMENT® G with Gentamicin was injected with the Flow-FX™ 2-CAN™ delivery system.

CULTURE

Methicillin-resistant Staphylococcus aureus (MRSA).

SYSTEMIC ANTIBIOTICS

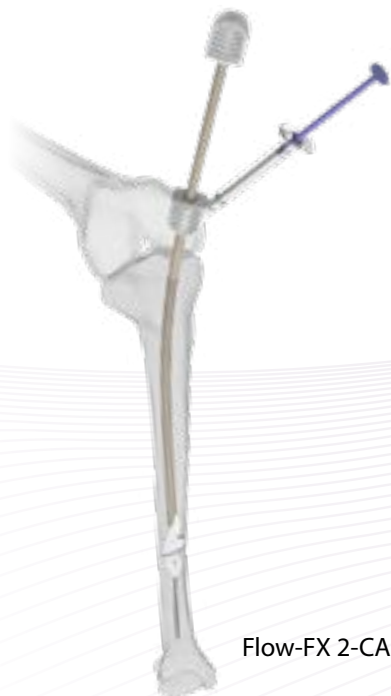
6 weeks of IV ABX Vancomycin.

OUTCOME

13 months post-operatively, he is back to work and fully weight bearing with no signs of infection recurrence. In the post-operative x-rays signs of remodeling can be seen in the previous defects.

ADDITIONAL DELIVERY DEVICES

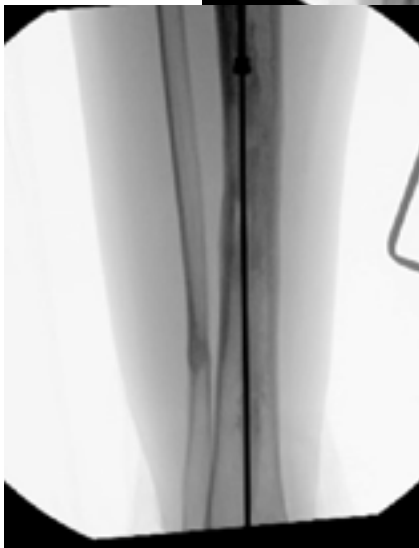
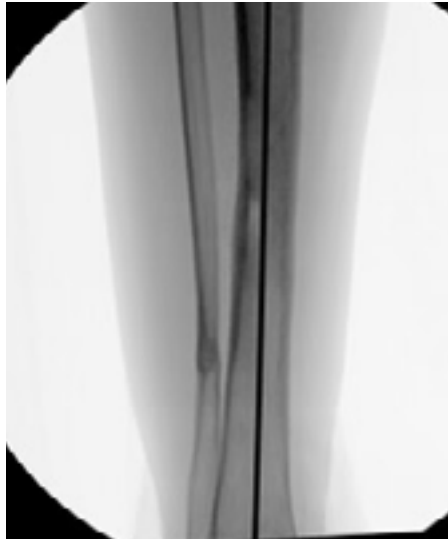
Flow-FX™ 2-CAN™



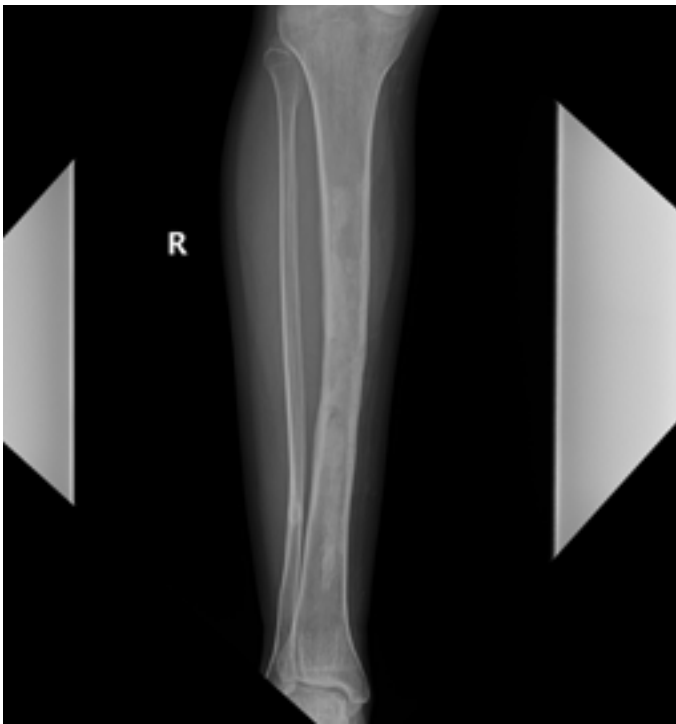
Flow-FX 2-CAN illustration in tibia.



Pre-op images: images demonstrating chronic osteomyelitis changes with sclerosis of the bone.



Intra-op images: guide wire, Flow-FX 2-CAN, then images with CERAMENT G, highlighting the ability to see CERAMENT G under fluroscopy.



2 weeks post-op shows evidence of CERAMENT G throughout the canal within the previous area of infection.



6 month post-op evidence of bone remodeling with improvement of anterior cortical defect and resorption of CERAMENT G.



13 month post-op evidence of bone remodeling with healing of anterior cortical defect.

Advancing Osteomyelitis Management

- Bone remodeling to promote and protect bone healing¹
- Local antibiotic elution that is safe, consistent and clinically significant²



1. Ferguson et al. 'Radiographic and Histological Analysis of a Synthetic Bone Graft Substitute Eluting Gentamicin in the Treatment of Chronic Osteomyelitis.' J Bone Joint Infect. 2019;4:76-84.

2. Stravinskis et al. 'Pharmacokinetics of gentamicin eluted from a regenerating bone graft substitute - In vitro and clinical release studies.' Bone Joint Res. 2016; 5:427-435

TO ORDER

us.sales@bonesupport.com

Availability of CERAMENT® is dependent on regulatory status in individual markets, contact your local representative.

For complete product information, including indications, contraindications, warnings, precautions, and potential adverse events, see package insert.



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