

# Open Distal Femur Fracture Case Study

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Location	Cleburne Orthopedics & Sports Medicine, Cleburne, TX
Patient	Open distal femur fracture
Issues	Fracture complicated with a previous total knee replacement at the site and high potential for wound infection
Outcomes	Wound healed with addition of CellerateRX® Surgical Powder and antibiotic

#### **Patient Profile**

69-year-old female with a history of:

- > 24-hour delay in surgery due to other medical complications
- Previous total knee replacement at site

#### **Presentation**

Patient had an open distal femur fracture after a motor vehicle accident that was complicated with a contaminated wound site. Surgery was delayed to address other, more urgent medical issues, which increased the risk of infection.

#### Treatment

The patient underwent surgery for wound debridement and irrigation as well as a retrograde intramedullary femur fixation. To reduce the bacterial load in the wound and reduce the risk of complications, including infection, the patient was given Vancomycin (1 g) 30 minutes prior to surgery. She also received CellerateRX Surgical Powder (1 g) combined with Tobramycin (1.2 g)



applied to the wound prior to closure. Incisional negative pressure wound therapy was utilized as the secondary wound dressing. The patient also received Vancomycin (1 g) postoperatively every 12 hours until the cultures came back at 48 hours and were negative.



#### Results/Outcomes



#### Intraoperative

Closure of fascia after intramedullary femur fixation.



# Intraoperative

Application of CellerateRX® Surgical Powder and Tobramycin powder.



### **Postoperative**

Closed surgical wound site.

The patient was discharged home four days after the surgery. The fracture and wound site healed without complication.

## **Treatment Rationale**

Open fractures represent a unique treatment challenge due to soft tissue destruction and wound contamination. CellerateRX Surgical Powder was implemented into the treatment plan for this patient given the documented properties of collagen in wound healing. The patient healed without an infection or other complications.



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