

Soft Tissue Management During Fracture Repair - From Skin To Wound Closure

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Osteosynthesis is the area where orthopaedic surgeons are most interested in fracture treatment. Since surgeons show particular interest in osteosynthesis technique, it is often the case where types of implants used in the osteosynthesis, or reduction techniques are discussed more than other elements. However, since careful handling of soft tissue can impact clinical outcome, it is also an essential element in fracture treatment. It can particularly affect lower limb surgeries where surgical site infection is concerned and appropriate handling of soft tissue is important to prevent infection, one of the complications that must be avoided.

Post-op wound healing can be impacted by patients, trauma and surgery. Patient factors such as medical complication or traumatic factors such as severe open fracture are not controllable by orthopaedic surgeons. In such case, wound healing and infection prevention of the patient will depend on our operation. Critical surgical factors that can affect wound healing after fracture treatment are approach, internal fixation method and wound closure method. Firstly, when approaching the wound, careful handling of soft tissue to the fracture area is important. Unnecessary traction of soft tissue should be avoided and approach to the fracture area by using scalpel with minimum dissection is desired. Secondly, in internal fixation, securing blood supply to soft tissue with strong fixation is critical. It is also important to select the internal fixation technique that will minimize the invasion to the soft tissue. Finally, the essential point in wound closure is secure hemostasis before closure and strong suturing by layer. Strong suturing should reserve blood supply of the wound edge and we practice this with the 'heart-shaped' suturing technique in the superficial layer. In the lecture, actual cases will be presented to share concrete approaches, internal fixation and wound closure methods to avoid troubles in wound healing.