Wound Debridement in War Injuries

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Content of this presentation

- Definition
- History
- Why debridement?
- Types of Debridement
- In this presentation I am going to present the pitfalls and failures and complications I faced from me, my colleagues and referrals from other places during my experience with war surgery.
- Who can do debridement?
Definition

- Debridement is removal of necrotic tissue and foreign material from the wound.
Why Debridement?

- The importance of limb wound debridement was known since ancient times and the extent of surgery for limb wounds agreed on at the Inter-Allied Surgical Conference in 1917 during the first world war.
- Necrotic tissue is a good media for bacterial growth especially anaerobes. It prevents wound healing and contraction.
- The key to a successful war wound management is the initial wound debridement.
- A good protocol is to have the patient only twice in OT. So the ward nurse never sees the open wound!
This is what the ER nurses see it
After 5 days in OT for DPC (delayed primary closure)
This is what the ward nurse to see it after 3 days from closure.
What are differences between war wounds and Civil wounds

- Amount of tissue devitalization
What are differences between war wounds and Civil wounds

- Amount of dirt driven into the wound.
Separation of tissue planes by high velocity missiles.
An apparently below knee injury ended with an AKA (Above knee amputation because of damage to tissues high up even the skin seems viable,
• Do not be deceived by a small inlet and outlets.
Types of debridement

- **Surgical (Sharp)**
- Surgical debridement gives rapid results in comparison with other ways of debridement.
Pitfalls in Wound Debridement
Failure of understanding importance of debridement.
Tendency to close or approximate wounds after debridement.
Left leg badly injures with bone loss

Clean surgical wound in right leg without signs of injury
Fibula missing from uninjured leg

Fibula grafted into fresh war wound without debridement
• Commonest cause of abdominal wall necrotizing fasciitis is neglecting of inlet and outlet wounds.
Creation of stoma near inlet or outlet wounds may lead to necrotizing fasciitis.
Tetanus

Is tetanus common among war wounded injuries?

NO!
Who Can Do Debridement?

• Simply any trained surgeon can do that!
• He/She needs necessary knowledge and training to complete the task *safely* and *effectively* and be able to *deal* with any *complications* as they arise.
• A good knowledge of anatomy of the region.
• Need to know where and when not to do DBR?
Special Considerations

- Face wounds
- Perineum and Genitalia
- Hands and feet
- Tendons and Bones
- Joints
- Blood Vessels
Delayed Primary closure (DPC)

- 3-5 days ideal time
- Beyond 7 days there is significant tissue retraction making primary closure difficult without undermining.
- Undermining of tissues are not preferred in war wound.
Complications of Debridement

- Wound infection
- Necrotizing Fasciitis
- Vascular thrombosis-
- Nerve and Tendon desiccation
- Bone desiccation and necrosis
Thank You