PLASTIC BAND CLOSURE OF A COMPLEX OPEN FRACTURE WOUND: A DISTRICT EXPERIENCE

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Introduction: Infection is the most common complication of open fractures. The greater the damage to the bone and soft tissues, the greater the risk. The aim is to always achieve an adequate soft tissue coverage for such complex wound. We are demonstrating an experience we had in managing a complex wound using plastic band which ended with a good outcome.

Discussion: A 60 year old gentleman alleged cut by grass cutter and sustained a Gustillo Anderson Grade 3C complete open fracture over his left fibula and unicortical open fracture over his left tibia with anterior tibia artery total cut. Immediate wound debridement, artery repair and primary soft tissue coverage was performed. Unfortunately, the wound was infected with mixed growth of Enterobacter sp., Serratia sp. And Bacillus sp. Bacteria. Multiple wound debridement was done. The left anterior tibia artery was salvaged, but the soft tissues were compromised after underwent multiple debridement, and ended with a wound about 15x15cm in size. Plastic band closure of the wound was performed at Day 24 post trauma using cable ties threaded through nasogastric tube as described by Abigail et al. In this case, the bands are tightened 10-15 clicks at every 24 hours interval without overstretching the skin. Daily dressing was carried out as well. The plastic bands were removed after 10 days, delayed primary closure was done, and the wound was healed well.

Conclusion: Plastic band closure is a cheaper alternative in managing a complex wound with a good outcome. It is a good method to achieve progressing secondary closure of a relatively large wound. This method also provides adequate time to monitor an infected large wound and allow daily dressing of the deeper soft tissues to be done before a secondary closure is performed.