

Managing Pediatric Open Fracture Gustillo-Anderson 3B Floating Knee In District Hospital. A Kluang Experience

¹Amir Arief AS; ²Siti Nabilah Z; ³Kamalruzaman MA; ⁴Muhammad Hanif K

¹Orthopedics Department, Hospital Enche Besar Hajjah Khalsom, Kluang, Johor, Malaysia.

INTRODUCTION:

An algorithm for managing open fractures in pediatric has a long debate among Orthopedic surgeons. Although open fractures are thought to contribute a small percentage (<10%) of all pediatric fractures, they are considered surgical emergencies as they carry a significant risk for infection and associated morbidity including osteomyelitis, malformation, nonunion, and disability. Incomplete or inappropriate treatment could cause severe complications in patients.

We report a case of managing pediatric open fracture right femur and open fracture right tibia fibula (floating knee) Gustilo Anderson 3B at district level.

REPORT:

2 years old girl with no known medical illness involved in a road traffic accident with unsure exact mechanism. Post trauma she sustained circumferential deep degloving wound over right distal thigh extending to knee joint. X-ray shows midshaft right femur fracture and midshaft right tibia fibula fracture.

She underwent wound debridement, arthrotomy washout and right cross knee external fixation within 12 hours post trauma. Intraoperatively noted circumferential degloving wound right thigh with no structural cut and contaminated with sandy particles. Post operative day 5 noted pus discharge and necrotic patch from thigh wound and pin tract. Subsequently she underwent second and third look wound debridement and followed by regular Aquacel Ag dressing every 3 to 5 days. She was administered with IV Cefuroxime for a total of 14 days and completed IV Gentamicin for 3 days. During clinic follow up, noted wound well healed with no sign of infection.



Figure 1: Pre operative wound (A) and post operative wound (B) after multiple wound debridement done.



Figure 2: Post right cross knee external fixation.

CONCLUSION:

Correct evaluation and management of soft tissue are important in managing long bone open fractures in pediatric populations. Children should present to a hospital as quickly as possible to be evaluated, receive care, and reduce the risk of deep infection.

REFERENCES:

1. Aulisa AG et al., Management of Open Pediatric Fractures: Proposal of a New Multidisciplinary Algorithm. *J. Clin. Med.* 2023, 12, 6378.