



Letter to Editor

Femoral fracture fixation along with ipsilateral knee disarticulation in a child

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Received: 06 May 2023
Accepted: 23 May 2023
Epub Ahead of Print: 10 June 2023
Published: 31 July 2023

DOI
10.25259/JMSR_93_2023

Quick Response Code:



Dear Editor,

We read with interest a recent article entitled “Femoral fracture fixation followed by ipsilateral amputation: A case report” describing an unusual result in a case with multiple fractures.^[1] Amputation is a highly unwanted outcome for both surgeon and patient, but certain injury patterns with vascularity issues require primary amputation in selected cases. The literature is not rich regarding such cases, as rightly mentioned in the article. We also wish to share our experience of a somewhat similar case not only for educational purposes but also to enrich the medical literature.

A 7-year-old male child was referred to us with a history of a road traffic accident. This led to a serious right lower limb crushing injury with an open wound over the knee region extending into the popliteal fossa. They applied a compression bandage at the primary center over the open wound and a wooden splint for the fracture. There was an associated blunt chest and head injury. His wounds were cleaned and dressed in the emergency room, but the limb below the knee was colder compared to the other side, and a provisional diagnosis of an associated injury of the popliteal artery was made. The radiographs showed the fracture of the right femur shaft with ipsilateral segmental tibia fracture [Figure 1a]. As the vascular surgeon was unavailable immediately and 7 hours passed after the injury, the poor prognosis was explained to the parent regarding limb salvage. A probable amputation was advised as they could not take him to the higher center. A prognosis regarding probable amputation was advised. Following the informed consent, and as dictated by the wound and soft tissues, the knee disarticulation was performed through the physis. A single titanium elastic nail was then used to provide fixation to the femur diaphysis fracture and the wound was closed over a suction drain [Figure 1b]. The single nail was done, as we took enough time in debridement, disarticulation, and creation of a good stump, and the nail provided sufficient internal splinting for the child who was not going to bear weight till the prosthesis was ready. The post-operative period was uneventful, the wound healed well, and the child started ambulation over crutches. The fracture gradually united in the following 4 months [Figure 1c and d], and he was then referred to a prosthetic specialist.

Immediate revascularization procedure is reported to yield better rates of limb salvage.^[2] Unlike the aforementioned article, we had no vascular repair performed. The non-availability of dedicated vascular surgery units in even many tertiary care centers in developing countries

How to cite this article: Dharmshaktu GS. Femoral fracture fixation along with ipsilateral knee disarticulation in a child. J Musculoskelet Surg Res, 2023;7:218-9.



Figure 1: The radiograph shows the femoral shaft fracture along with the ipsilateral segmental tibia (a) fracture. The final management was done by limb disarticulation through the distal femoral physis and fixation of the femur with a single flexible nail (b). The fracture healed gradually (c and d) without signs of infection or heterotopic ossification.

like India is a major limitation in this regard. Financial constraints also dictate the treatment selection in many cases. Definitive fixation of fractures proximal to the amputation level can have a good outcome despite the risk of infection or heterotypic ossification.^[3] Our case, fortunately, had no such complication. However, the knee joint could not be salvaged for better prosthetic functioning and ambulation. Our case snippet highlights an uncommon complication and outcome in the settings of complex trauma and underlines

the importance of a careful and multidisciplinary approach in managing such injuries.

USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY FOR MANUSCRIPT PREPARATION

The author confirms that there was no use of Artificial Intelligence (AI)-Assisted Technology for assisting in the writing or editing of the manuscript and no images were manipulated using the AI.

DECLARATION OF THE PATIENT'S CONSENT

The author certifies that he has obtained all appropriate patient consent forms. In the form, the patient's parent has given his consent for the patient's images and other clinical information to be reported in the journal. The parent understands that the patient's name and initials will not be published, and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

FINANCIAL SUPPORT AND SPONSORSHIP

The study did not receive any specific grant from public, commercial, or not-for-profit funding agencies.

CONFLICTS OF INTEREST

There are no conflicting relationships or activities.

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