

# Definitive fixation of open pelvic fracture with Morel- Lavallee in emergency setting

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## Introduction

Definitive pelvic ring fixation in hemodynamically stable cases are usually done electively with sufficient preoperative planning and done by expert team of surgeons.<sup>2</sup>

## Case report

We report a 19-year-old gentleman, sustained open left iliac wing and closed sub-trochanteric femur fracture following motor vehicle accident. Decision for wound debridement and fixation of iliac fracture made since surgery within 24hours of trauma. Intraoperatively, noted massive fracture hematoma and bleeding from fracture site. Wound was thoroughly debrided in layers and retroperitoneal hematoma evacuated. Fracture reduced and fixed with non-locking pelvic recon plate. Post fixation, noted bleeding controllable. Postoperatively, antibiotic given for 5 days and drains removed on day 3. Femur was fixed electively. Subsequently, wound healed unremarkably and fracture callus noted on follow up x-rays.



Figure 1: Pre and postoperative x-rays of pelvis



Figure 2: Intraoperative image post plating

## Discussion:

Open fracture pelvic are rare<sup>1</sup>. Its common practice to debride and decide for fixation later. But despite morel- lavallee and soft tissue injury, we believe adequate through debridement and exploration of fracture and surrounding tissue done by experienced personal; internal fixation of pelvis can be done in same setting with no wound or bony complications. This can reduce anesthesia risk, long hospital stay, duration of antibiotics without jeopardizing patient management. It will also allow early mobilization. Since this patient sustained avulsion fracture, rigid fixation will allow healing of Sartorius and ilioinguinal ligament attachment. Pelvic external fixator could not be used due to fracture pattern preventing iliac pin insertion and achieving tamponade. Rigid fixation prevents pelvic organ and femoral neurovascular bundle injury due to sharp bone edges. With stable pelvis, femoral nailing done on traction table with ease. With current pandemic, early fixation will allow patient to be discharged early

## Conclusion

Despite open fracture of pelvis, definitive internal fixation should be considered after adequate debridement within 24hrs hours of trauma

## References

1. Giordano et al. The Open Orthopedics Journal.2016
2. Mostafa AMHAM et al. Journal of Perioperative practice.2021