

# PELVIC WITH LUMBOPELVIC STABILIZATION IN COMPLEX PELVIC AND SACRUM FRACTURE: A SERIES OF CASES

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## INTRODUCTION:

Combined injury to pelvis and sacrum resulted from high magnitude injury. These injuries usually lead to significant blood loss requiring urgent resuscitation and early damage control pelvic stabilization. Most of cases were treated conservatively with definitive external fixation due to complexity of injuries and complications.

We report 4 cases of pelvic injuries associated with sacrum fracture which underwent surgical intervention in single setting for stabilization of both pelvic and sacrum.

## CASE SERIES:

We reviewed four cases with combined injury to the pelvic ring and sacrum which underwent single stage stabilization. Three cases were pelvic ring disruption and one case was bicolunar pelvic fracture associated with posterior wall acetabulum. All anterior pelvic rings were operated through anterior approach as described by Letournel. The acetabulum fracture was stabilized through posterior surgical hip exposure. All sacrum were stabilized with lumbopelvic stabilization using rod and pedicle/iliac screws.

All patients ambulating pain free and no loss of fracture reduction on follow-up. One patient developed posterior wound breakdown following Morel-Lavallee lesion. It healed after 3 weeks of dressing and antibiotics with no evidence of chronic infection after 1 year follow up.



## CONCLUSION:

Combined pelvic ring and unstable sacral fractures are best treated with fixation with or without decompression. Stabilization of posterior element is important to prevent deformity, minimize pain and late neurological deficit.

Systematic review by Papakostidis et al concluded that posterior pelvic internal fixation result is better than non-operative treatment. Options are percutaneous screws, posterior sacral tension band fixation, triangular sacral plate and lumbopelvic fixation.

Schildhauer et al reported successful outcome of lumbopelvic fixation in 19 patients with spinopelvic instability and cauda equina injuries. 15 patients had full or partial recovery of bowel and bladder deficits and all fracture healed without loss of reduction.

We highlight that these simultaneous fixation may help patients for early ambulation and may achieve good long term functional outcome.

## REFERENCES:

1. Schildhauer et al. Decompression and lumbopelvic fixation for sacral fracture dislocations with spino-pelvic dissociation. *J Orthop Trauma*. 2006; 20(7):447-457.
2. Sean M. Esmende et al. Spinopelvic fixation. *J Am Acad Orthop Surg*. 2018(0):1-6.