

## Open Book in a Pregnant Women and how we approach a disaster.

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### INTRODUCTION:

Open book fractures are infrequently found, those found in pregnancy are even more scarce and evolves high fetal and maternal mortality. We report a case and the subsequent management by our team.

### REPORT:

A 26-year-old lady, gravida 3 para 2, who was at 35 weeks and 5 days period of gestation was unfortunately involved in a road traffic accident in which she was the motorcycle rider. She presented to the emergency department with stable vital signs and was attended by the trauma and obstetric team immediately. Upon clearing primary survey, secondary survey revealed an unstable pelvis with puncture wound over right lateral thigh. Further radiographs after consent showed that she had an open book pelvic injury (Anterior Posterior Compression II) along with open midshaft fracture of right femur (Gustilo Anderson I). Cardiotocography reveal normal uterine activity and stable fetal heart rate, the patient was then put on pelvic binders after discussing with obstetric team. Following input from various specialty, the patient was pushed to operating theatre for emergency lower segment caesarean section with the pelvic binder on, followed by external fixation of pelvis through supra-acetabular pins then proceeded with wound debridement of right femur and retrograde femoral nailing of right femur.

She safely delivered a baby girl of 1.9kg with an APGAR score of 4/7/10. Total surgical time was 3 hours (1 hour for Obstetric procedure and 2 hours for Orthopedic procedures) with an estimated blood loss of 800mls. She was stable throughout the operation and required 2 pints of pack cell transfusion post operatively.

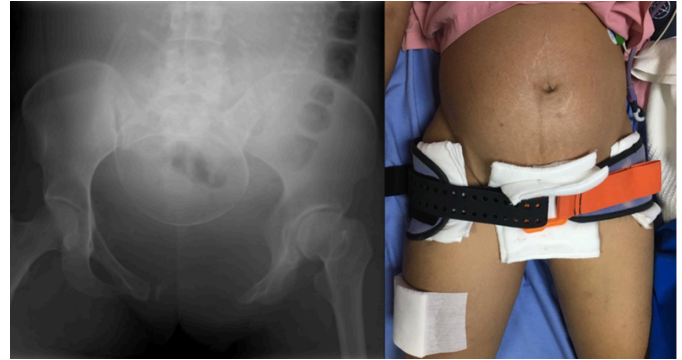


Figure 1 : Open book pelvic injury (left) with fetus in vertex position, Pelvic binder applied (right)

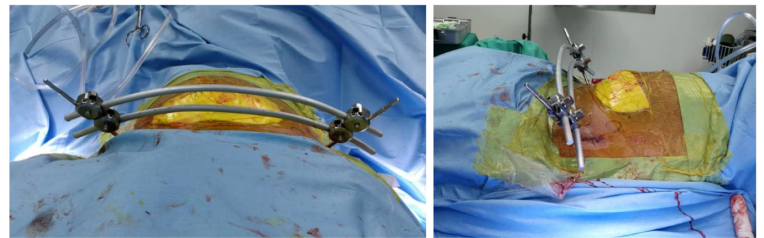


Figure 2 : Anterior (left) and lateral view (right) of pelvic external fix with two 5mm supraacetabular Shanz pins.

She was discharged well with the infant 8 days later with external fixation as definitive fixation for her pelvic injury. Follow-up at 2 weeks shows pelvic reduction was maintained with the external fixator in place.

### CONCLUSION:

Trauma in pregnant is challenging to be managed. The safety of the mother should take precedence while multidisciplinary approach is pertinent to manage such cases effectively.

### REFERENCES:

1. Amorosa LF, et al. Management of Pelvic Injuries in Pregnancy. *Orthop Clin N Am*, 2013;44:301-315. Stohlner V, et al.
2. Definitive use of external fixation for pelvic ring injuries (open book/APC2) in pregnancy. *BMJ Case Rep*, 2015