

Fix the Femur or Deliver the Baby First? An Unresolved Conundrum in Pregnancy

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Introduction:

Antepartum atraumatic neck of femur fracture is rare and a minority of them are complications of transient osteoporosis of the hip (TOH). Limited by cases reported coupled with variation at gestational age precipitates the lack of consensus on the holistic management of patients. We describe a multidisciplinary management of such complex case in a tertiary hospital.

Report:

A 29-year-old primigravid at 33 weeks of gestation presented with sudden onset severe right hip pain. Obstetric examinations were unremarkable. Plain radiographic imaging conducted with informed consent of the patient revealed a displaced subcapital right neck of femur fracture. Haematological, oncological, rheumatological and biochemical work up revealed no abnormalities except for low Vitamin D levels. Antenatal history revealed, she was initially treated conservatively as pregnancy related pelvic pain at 27 weeks of gestation. Multidisciplinary team consist of anaesthetists, obstetricians, orthopaedic surgeons, and paediatricians generated plan for emergency Caesarean Section under general anaesthesia followed by fracture fixation under same setting. Sub-capital neck of femur fracture reduced with cannulated screws. Histopathological and microbiological analysis of intra-operative bone samples revealed no abnormalities.

Transient osteoporosis of the hip (TOH) is underreported as pelvic and hip pain in pregnancy due to misconception about perceived risk of radiation from radiographic imaging. MRI is the gold

standard to differentiate between TOH and AVN. However, the urgency of managing our patient precedes the need for MRI. In view of her age and functional demand, we decided for femoral head preserving surgery with cannulated screw fixation. Our main concerns are the risk of osteonecrosis and non-union in this kind of fractures which should be adequately explained to patients.

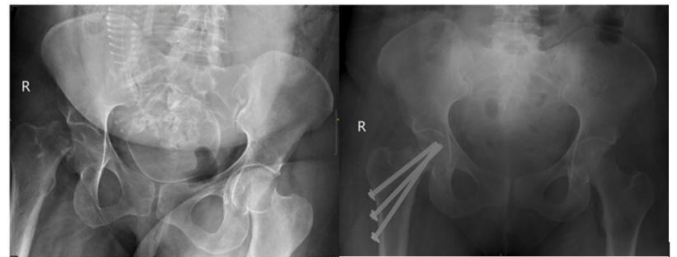


Figure: pre-operative and post-operative plain radiograph showing fracture at subcapital right neck of femur

Conclusion:

Orthopaedic consultation for pregnant patients with hip pain must be mandatory regardless of gestation and those with high index of suspicion should be advised for MRI. Hip sparing surgery should be mainstay of treatment with the potential complications explained to patient.

Reference:

Tayne S, Fralinger D, Ali A. Atraumatic Displaced Femoral Neck Fracture Postpartum: A Case Report and Review of the Literature. *J Am Acad Orthop Surg Glob Res Rev.* 2019 Sep 17;3(9):e037.