Unusual Locked Pelvis (Overlapping Pubic Symphysis Dislocation) A Case Report

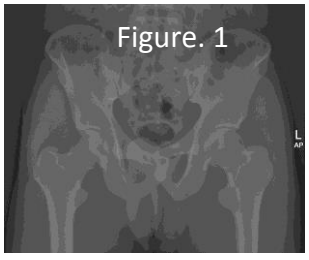
Hau W, Abdul Rani R, Mohamad Yahaya NH
Department of Orthopaedic and Traumatology, Faculty of Medicine, University Kebangsaan Malaysia, Kuala Lumpur, Malaysia

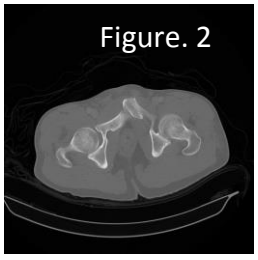
Introduction:

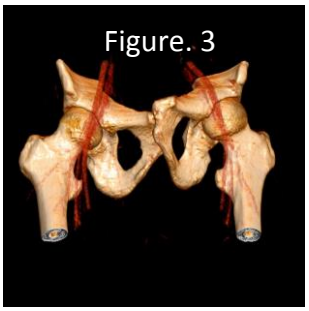
Locked pubic symphysis is very rare and usually occurs in traumatic lateral compression of pelvic ring. One of the pubic bone is dislocated and overlapped behind the contralateral side pubic bone. The suggested mechanism of injury is due to lateral compression resulting in hip adduction and hyperextension[2]. Pelvic injuries due to lateral compression is well recognised but resulting in locked pelvis is very rare[3]. Cases reported previously shows that cases which left untreated and the pelvic unreduced, the outcome were not satisfactory. Patient complained of constant pubic symphysis discomfort during ambulation and dyspareunia[4].

Case report:

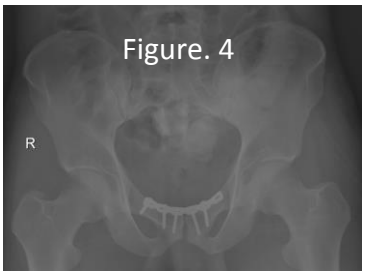
A 31-year-old male presented to our emergency department due to motor vehicle accident. Patient was riding motorcycle and was hit from the back by a car. While he was trying to stand-up, he claimed that his both thigh and pelvic were ran over by the car. On arrival, he was conscious and vitals are stable. Patient complained of pain over right side of chest and suprapubic region. However, patient still able to stand but pubic region pain upon ambulation. On examination, there are some bruises and tyre marks over the right hip and pelvic region. Chest spring was positive due to right 7th rib fracture but pelvic spring was negative and there was no tenderness over suprapubic region upon palpation. Antero-posterior radiograph (Figure 1) was done and shown that the right pubis was trapped behind the left pubis. Computer tomography scan (Figure 2 and 3) confirmed that the right pubis dislocated behind the left pubis and entrapped by the right pubic tubercle. There were no additional injuries.







In this patient, we were unable to reduce the pubic bone using closed manipulation. We proceed with open reduction and plating of the pubic symphysis using recon plate (Figure 4). The open reduction was performed through a Pfannenstiel incision. The incision was completed down to the pubic rami and fascia was cut using midline incision. The rectus was elevated off the pubic symphysis. The right pubic was trapped behind the left pubic bone. We used a blunt tip bone spike as lever to disengage the posterior fragment from the anterior fragment.



Discussion:

In cases with locked pelvis, it was found that anterior superior iliac spine had moved closer to the midline on the affected side compared to the opposite side[2]. An overlapping pubic symphysis occur from a lateral compression results in disruption of the stabilizing ligaments for the symphysis[3]. The dislocation involved hyperextension, adduction and internal rotation, with posterior displacement of pubic bone[2]. Closed reduction was not possible so has to proceed with open reduction. Only few of the cases, the overlapped pubic symphysis can be reduced using closed reduction. Locked pubis symphysis patient often sustained other injuries simultaneously, especially urogenital injuries which was reported to be around 47%[1]. Our patient was inserted with CBD since admission