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Case Report

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RARE CASE REPORT OF TRAUMATIC BILATERAL, CONTRALATERAL HIP DISLOCATION WITH PUBIC DIASTASIS

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INTRODUCTION

The hip joint is an stable joint and dislocation of this joint requires a significant and very high energy trauma. Bilateral hip dislocation are very rare and accounts for 0.01 to 0.02% of all cases of dislocations.[1] Because of the strong ligamentous and muscular stability and strong bony fit columns, these injuries may include dislocations with fracture of femoral head or acetabulum.[7] Injuries to the pelvis or to the other organ system and may lead to haemorrhage, bladder injury, and shock.[1,4] Bilateral hip dislocation is a rare injury and that to simultaneous contralatral (asymmetrical) hip dislocation is even rare injury and only limited number of case has been reportrd.[3] Early Complication of these injury includes femoral head fracture, acetabular fracture, shock, nerve injury. late complication includes hetrotrophic ossification, avascular necrosis of femoral head.[5]

The incidence of AVN was 26% with a mean time to reduction of 15.3 hrs. It is considered an orthopaedic emergency requiring immediate reduction.[2,6]

CASE PRESENTATION

A 35 year male patient was admitted in emergency department of ERAS Lucknow medical college with history of motor vehicle accident.as the exact mechanism of injury was not known but the classical mechanism of injury in such cases are due to person hit by a heavy vehicle or due to head on collision of a vehicle or a motorcycle accidents.[3,12,13] Initially the patient was taken to a nearby hospital where X-ray pelvis and CT scan pelvis with 3D reconstruction was done. Then patient was reffered to tertiary center for further management and so he presented to us approximately 24 hours after the injury. Patient sustained injury to pelvic region. There was no history of head injury, loss of consciousness, and ENT bleed.

Past history and Personal history was not significant. General examination: A 35 year old male patient lying supine, well oriented, conscious and irritable. There was no sign of head injury with glassgow coma scale was 15 and was hemodynamically stable.Airways, breathing and circulation was quickly assessed and was normal.

Local examination

On Inspection: Attitude of the Left hip was abducted and externally rotated, left knee and ankle in neutral position. Right hip was flexed, adducted, internally rotated and shortened.

On Palpation: No local rise of temperature. Tenderness was present over bilateral hip and pubic region. A hard bony mass palpable over left inguinal region with prominent femoral artery pulsation.

On right side a hard bony mass palpable posteriorly in gluteal region, and femoral artery pulsation was feeble. Greater trochenter was found to be migrated proximally and posteriorly on right side.

Range of movement of bilateral hip joints was restricted and Pelvic compression test was positive.
There was no nurological deficit and all the nerve function was intact.

Radiographic findings: x-ray pelvis revealed right hip posterior dislocation with pubic diastasis.

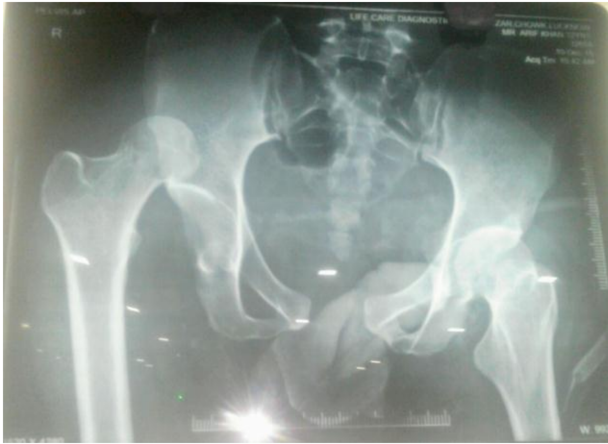

Figure 1

Ct scan pelvis revealed bilateral hip contalaterally dislocated with no evidence of acetabular or femoral head involvement.

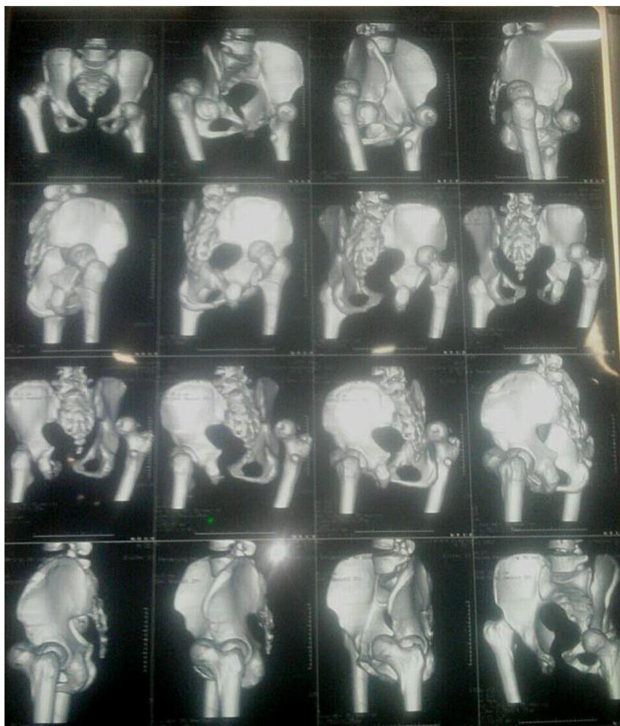

Figure 2

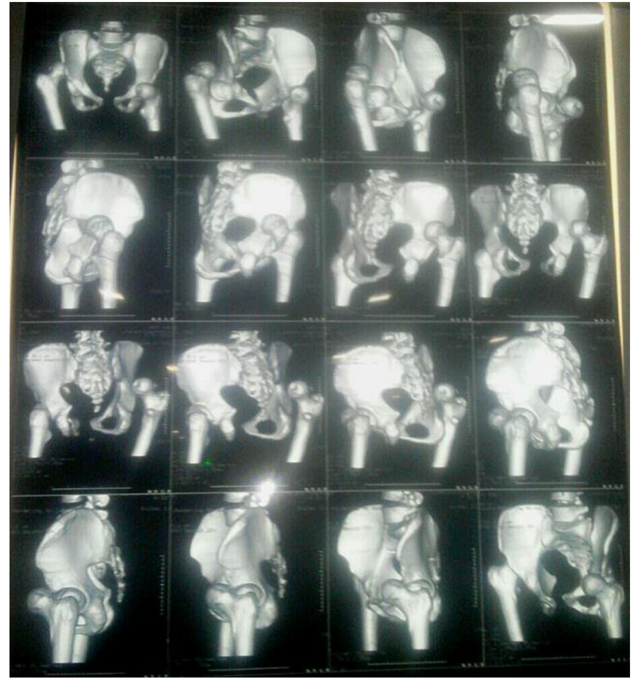

Figure 3

Management

After diagnosis was confirmed patient was immediately transferred to operation theatre and reduction of bilaterally dislocated hip joints was performed under general anaesthesia, and full ROM was achieved. Then patient was shifted to ward with 5 kgs of bilateral skin traction and both hip kept in abduction.

Figure 4

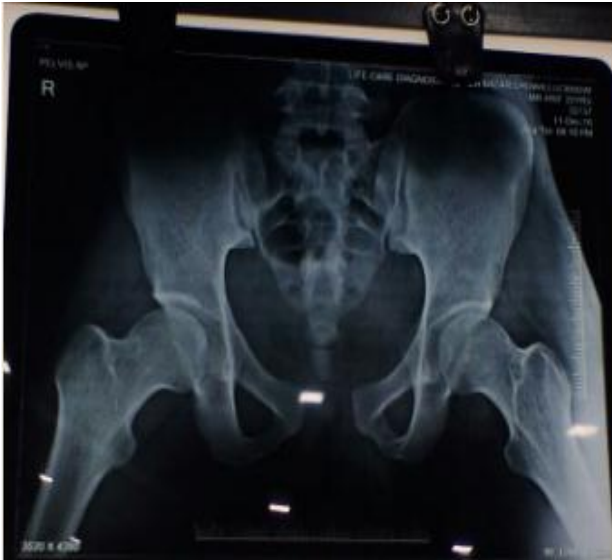

Figure 5

An elective ot was planed such as open reduction internal fixation with recon plate after 2 days for management of pubic diastasis as the diastasis was more than 2.5 cm which was absolute indication for surgery.[8]

In ot under spinal anesthesia pt was taken in supine position and part prepared and drapped.Through anterior approach about 8 cm of curvilinear incision was taken centering it about 1 cm superior to pubic symphysis then incision deepen and rectus sheath was exposed. rectus sheath insised longitudinally and about 1 cm above the pubic symphysis to reveal the rectus abdomen muscle.

Then rectus muscle was divided from its insersion to expose the superior pubic ramus of the pubis then plane was opened behind the symphysis pubis with a blunt desector and pubic symphysis was exposed and redused with a pointed reduction clamp and a 6 hold recon plate was fixed on the superior surface of symphysis pubis.

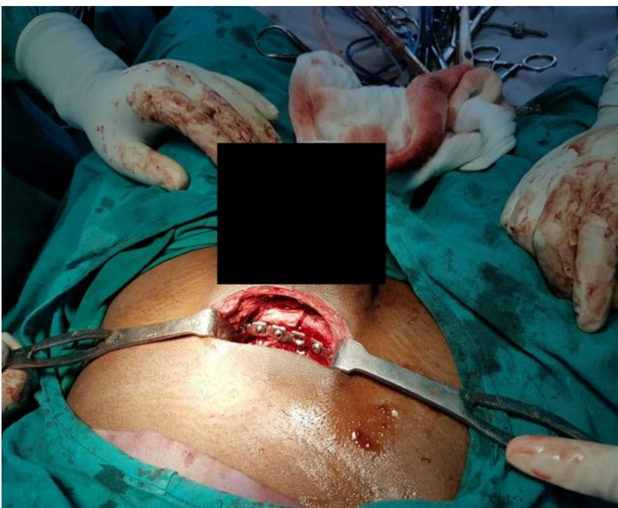

Figure 6

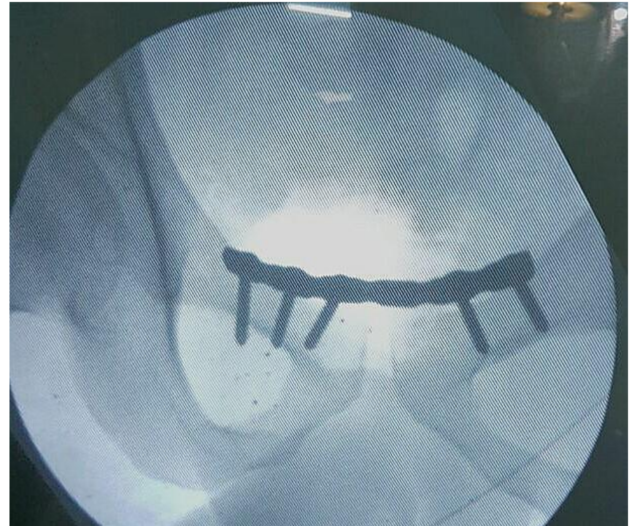

Figure 7

Post operative management
Post operatively patient was kept on bilateral 5 kg of skin traction and patient mobilised after 3 weeks with crutch.[5]

Tablet indomethacine 75mg od dose started after postreduction to prevent the occurrence of hetrotrophic ossification.[9]

6 Weeks follow up
There was no stiffness of joint and,no pain at both hip and peteint was walking with the crutchs comfortably.

3 Months follow up
Patient is walking comfortably no fresh complains there is no early sign of any avascular necrosis of the femoral head.[10]

RESULT

As the bilateral assymetrical dislocation of the hip is a rare occurance and is associated with lots of pre and post treatment complication even though can be managed by early reduction and and later elective ot can be planed for the associated injury and chances of complication such as hetrorophic ossification and avascular necrosis instability can be reduced.

DISCUSSION

Hip joint is very stable joint and very high energy trauma is reqired to dislocate this joint and bilateral contralateral hip dislocation is even rare and only limited number of cases has been reported as such. as mentioner above with all the references.

In our case the patient presented with us almost after 24 hour of injury even though clinical assessment was done quickly but the radiological diagnosis was confirmed as he had the x ray and ct pelvis with him. So the protocol of as soon as possible reduction was followed and immediately the reduction of both the hip was performed

under general anaesthesia after achieving a very good muscle relaxation.

As we had a case of pure ligamentous dislocation without any associated fracture of acetabulum and femoral head and shaft and no associated knee injury except pubic diastasis for which elective ot was planned after two days.

As at 3 weeks and 6 weeks follow up patient was comfortable and at even 3 months of follow-up patient is walking without support with no early sigh and symptom of late complication such as hetrotrophic ossification and avascular necrosis.

So the conclusion is in simple pure ligamentous dislocation of hip even bilateral early close reduction provide good results even if patient presenting late such as within 24 hour and occurrence of complications such as heterotrophic ossification can be prevented if proper prophylaxis is provided.

But this is a case report of single patients even a lot of study is required to compare these result for the same type of cases who presenting late.

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