



International Journal of Case Reports in Orthopaedics

E-ISSN: 2707-8353

P-ISSN: 2707-8345

IJCRO 2023; 5(2): 01-06

www.orthocasereports.com

Received: 03-04-2023

Accepted: 09-05-2023

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Functional outcome of a year-old neglected posterior hip dislocation after a 2-Stage operation: A case report

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DOI: <https://doi.org/10.22271/27078345.2023.v5.i2a.163>

Abstract

Posterior hip dislocations occur as a result of hip trauma in positions of flexion, adduction, and internal rotation. In developing countries especially in Indonesia, the patients usually come to the hospital several days or even years after the trauma. Open reduction was known as a management of posterior hip dislocation in chronic condition.

We present the case of a 22-year-old male with neglected posterior hip dislocation from motor vehicle collision 1 year ago. The patient went to the bonesetter and a year later went to an orthopedic Surgeon at Dr Mohammad Hoesin General Hospital Palembang because the pain worsened and the patient was having difficulty walking. The operation performed on the patient was soft tissue release + skeletal traction and open reduction followed by installation of a Kirschner wire (K-wire). After the operation, the patient had improvements such as leg length discrepancy score was 0 cm, able to walk without crutch, no limp, unlimited distance, and the improvement of Harris Hip Score from 41 to 96. In conclusion, open reduction had better improvement than any treatment.

Keywords: Hip dislocation, skeletal traction, open reduction, leg length discrepancy, Harris Hip Score

Introduction

Posterior hip dislocation is a type of hip dislocation that is quite common compared to the anterior hip dislocation [1]. Posterior hip dislocations occur as a result of hip trauma in positions of flexion, adduction, and internal rotation. In this position, pressure is transmitted through the knee along the femur. This pressure can cause the femoral head to move posteriorly through the acetabulum and a posterior hip dislocation occurs [2].

In developing countries, patients usually come to the hospital several days or even years after the trauma because they have received alternative therapies. Neglected hip dislocation occurs in situations when the patient is unable to find adequate medical treatment. Chronic dislocations can therefore be observed in patients with high pain tolerance, with a diminished cognitive capacity to recognize or express their pain, and with additional injuries that pose a greater risk of death. Due to soft tissue contractures, adhesions, fibrofatty filling of the acetabulum, and the presence of myositis ossificans, the treatment of a neglected hip dislocation becomes more challenging over time [3].

In chronic conditions, the management that can be done is open reduction. Indications for open reduction include a hip that has been dislocated for a long period, inability to achieve adequate sedation safely in the emergency department, irreducible dislocation, fracture of the head or shaft of the femur, and persistent instability or redislocation after treatment [4].

We present a case of neglected posterior hip dislocation which was performed in the form of open reduction. Informed consent for the publication of this case was received from the patient. Our particular focus is on the patient's condition after surgery compared with another study.

Case Report

A 22-year-old male complained of pain in his thighs because fell from motorbike after colliding with a car in 1 year ago. He went to the hospital for X-Ray and was diagnosed a dislocation of his hip. The patient abandoned treatment because he wanted to go to bonesetter. Six-months after the injury, the patient went to an orthopedic surgeon at Dr Mohammad Hoesin General Hospital Palembang because felt the pain was getting worse and he could not walk but was able to walk with the crutch.

A physical examination of the right hip showed that he could do partial flexion and extension. He had a leg length discrepancy (LLD) of 3 cm due to shortening of the right lower extremity as shown in Figure 1. He was walking with

the crutch and an antalgic gait. His hip movement were restricted and painful. The Harris Hip Score (HHS) of him was 41/100 shown in Table 1.



Fig 1: Pre-operative Leg Length Discrepancy

Before the patient was operated, the patient underwent an X-Ray examination and the results showed dislocation of

the right femoral head was posterior to the right acetabulum that showed in Figure 2.



Fig 2: Pre-operative X-Ray Pelvic AP

Table 1: Pre-Operative Harris Hip Score

| Pain | |
|--------------------------------|----|
| None | 44 |
| Slight, occasional | 40 |
| Mild, normal activity | 30 |
| Moderate, activity concessions | 20 |
| Marked, severe concessions | 10 |
| Totally disabled | 0 |
| Range of Motion (ROM) | |
| Full | 5 |
| Partial | 4 |
| Limited | 2 |
| Gait/limp | |
| None | 11 |
| Slight | 8 |
| Moderate | 5 |

| | |
|-------------------------|----------|
| Unable to walk | ① |
| Gait/support | |
| None | 11 |
| Cane for long walks | 7 |
| Cane, full time | 5 |
| Crutch | ④ |
| Two canes | 2 |
| Unable to walk | 0 |
| Gait/distance | |
| Unlimited | ⑪ |
| 6 blocks | 8 |
| 2 or 3 blocks | 5 |
| Indoors only | 2 |
| Bed and chair | 0 |
| Function/stairs | |
| Normal | ④ |
| Normal with banister | 2 |
| Any method | 1 |
| Unable | 0 |
| Socks and shoes | |
| Easy | 4 |
| With difficulty | ② |
| Unable | 0 |
| Sitting | |
| Any chair 1 hour | ⑤ |
| High chair ½ hour | 3 |
| Unable to sit ½ hour | 0 |
| Public transport | |
| Able | ① |
| Not able to use | 0 |
| Deformity | |
| Absence of all 4 | 4 |
| Presence of 1 | 0 |
| Total | 41 / 100 |

The first operation performed on the patient was soft tissue release + skeletal traction and the patient was hospitalized for 2 weeks. Before patient did the second operation, we

evaluated the skeletal traction. Traction stopped when the greater trochanter is pulled at the level of the articular surface of the acetabulum that showed in Figure 3.



Fig 3: X-Ray 2 weeks after Soft Tissue Release + Skeletal Traction

The second operation, we did open reduction followed by installation of a Kirschner wire (K-wire) which is a tool used to fix bones so that they are held in their original position form in Figure 4. After 3 weeks post open

reduction, we removed K-wire and had to X-Rays 3 weeks post-operative to see the results of the post K-wire fixation that showed in Figure 5.

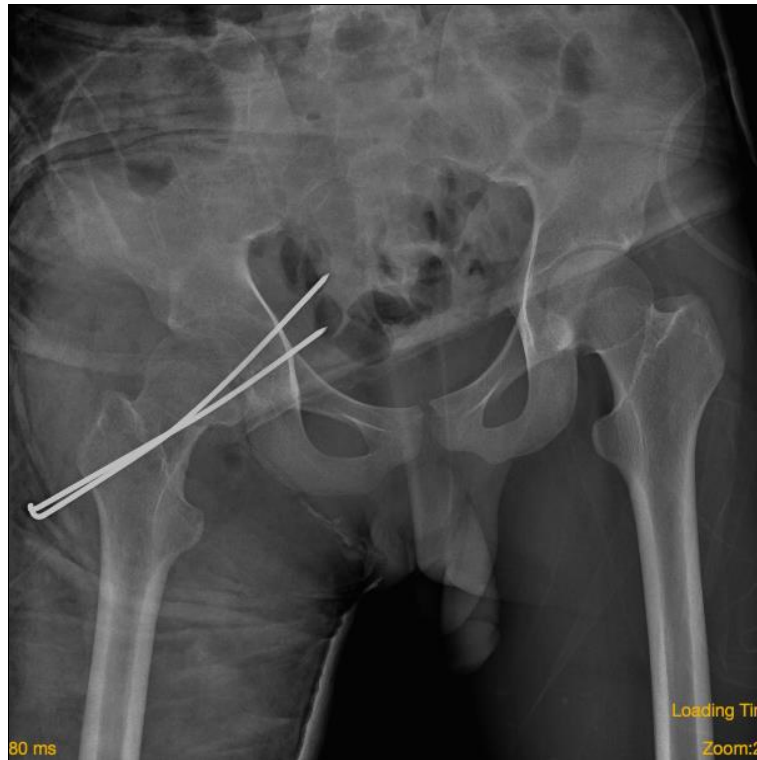


Fig 4: Post-operative X-Ray Pelvic AP with K-Wire Fixation



Fig 5: X-Ray Pelvic AP Post K-Wire Fixation

Nine months after the treatment, we did physical examination to the patient, then have got that the LLD was 0 cm shown in Figure 6. Patient can do fully flexion of his lower extremity and have no complaint about pain after 9-

month post-surgery. He can walk without crutch, no limp, and unlimited distance. The HHS of the patient showed improvement from 41 to 96 are represented in Table 2.

Table 2: Post-operative Harris Hip Score

| Pain | |
|--------------------------------|-----------------|
| None | 44 |
| Slight, occasional | (40) |
| Mild, normal activity | 30 |
| Moderate, activity concessions | 20 |
| Marked, severe concessions | 10 |
| Totally disabled | 0 |
| Range of Motion (ROM) | |
| Full | (5) |
| Partial | 4 |
| Limited | 2 |
| Gait/limp | |
| None | (11) |
| Slight | 8 |
| Moderate | 5 |
| Unable to walk | 0 |
| Gait/support | |
| None | (11) |
| Cane for long walks | 7 |
| Cane, full time | 5 |
| Crutch | 4 |
| Two canes | 2 |
| Unable to walk | 0 |
| Gait/distance | |
| Unlimited | (11) |
| 6 blocks | 8 |
| 2 or 3 blocks | 5 |
| Indoors only | 2 |
| Bed and chair | 0 |
| Function/stairs | |
| Normal | (4) |
| Normal with banister | 2 |
| Any method | 1 |
| Unable | 0 |
| Socks and shoes | |
| Easy | (4) |
| With difficulty | 2 |
| Unable | 0 |
| Sitting | |
| Any chair 1 hour | (5) |
| High chair ½ hour | 3 |
| Unable to sit ½ hour | 0 |
| Public transport | |
| Able | (1) |
| Not able to use | 0 |
| Deformity | |
| Absence of all 4 | (4) |
| Presence of 1 | 0 |
| Total | 96 / 100 |



Fig 6: Post-operative Leg Length Discrepancy

Discussion

Hip dislocations can be classified as congenital or acquired. However, hip dislocations often occur in an acquired. Most of the results are hip dislocations from motor vehicle collisions [4]. Another study stated that all of the patient of neglected posterior hip dislocation caused by road traffic accident [5]. This is linear to our study that cause of this cases is traffic accident.

The best method of treatment for managing a neglected posterior hip dislocation is still being debated. Numerous studies reported various techniques for operating on neglected posterior hip dislocation, including the use of a sub-trochanteric osteotomy, open reduction, hip arthrodesis,

hemiarthroplasty, the Girdlestone surgery, and complete hip replacement^[3].

In Ret *et al.*, shown that neglected posterior hip dislocation are more common in males^[5]. This can happen because men generally work and have high mobility, so they are more at risk of suffering from trauma that causes dislocation, including neglected hip dislocation^[6]. Thus, this study were in line with previous study where this cases commonly happen in males.

In Banskota *et al.*, eight cases with neglected posterior dislocation on hip reported good results in three cases treating the hip with an open reduction. They have got LLD were within 2 cm in seven cases and >2 cm in one cases^[7]. In Ret *et al.*, the LLD of their patient after did surgery has residual LLD of 3 cm^[5]. Thus, this case has significantly better outcome as the LLD were fully corrected.

Kumar *et al.*, reported that the patient of their cases has resulting improvement of Harris Hip Score from 48 to 81^[8]. In Banskota *et al.*, their cases achieved a mean Harris hip score of 89^[7]. However, this study had better results than the previous study because it had an HHS of 96/100. On follow up, the patient showed improved range of motion of hip joint without pain.

Open reduction conducted by Ret *et al.*, has excellent outcome. This was in line with this study because 9 months after surgery, the patient showed an excellent outcome in LLD, HHS, and ROM much better than other study.

Conclusion

Our case of 22 years old male patient with a year of neglected posterior hip dislocation was treated by soft tissue release + skeletal traction and open reduction + K-Wire Fixation. The operation of the patient had improvements such as LLD score were fully corrected, able to walk without crutch, unlimited distance, and the improvement of HHS from 41 to 96. In conclusions, open reduction of this case had better improvement than any treatment.

Conflict of interest

The authors declare no conflict of interest.

References

1. Huber FA, Hirtler L, Kainberger F. Muscle ruptures in posterior hip dislocation: A case report. *BJR|case reports*. 2017;3(3):20170020.
2. Dilogo IH, Erwin US, Hendriarto A. Posterior dislocation of left hip joint with closed fracture of left acetabulum Judet-Letournel type posterior wall, femoral head fracture, management and follow up: A case report. *Int J Surg Case Rep [Internet]*. 2020;71(71):85–90. Available from: <https://doi.org/10.1016/j.ijscr.2020.04.009>
3. Kiran S, Sodagor S. Neglected posterior hip dislocation: management of an 18 years old female. *Int J Heal Res Med Leg Pract*. 2020;6(2):52–5.
4. Dawson-Amoah K, Raszewski J, Duplantier N, Waddell BS. Dislocation of the hip: A review of types, causes, and treatment. *Ochsner J*. 2018;18(3):242–52.
5. Ret E, Do O, Mo O. Management of Neglected Posterior Hip Dislocation Using a Management Of Neglected Posterior Hip Dislocation ~~ Ing A Two-Stage Procedure. 2022;(February).
6. Wahyudiputra AG, Khoirur HD, Hakim RA, Narendra MR. *Spektrum Penderita Neglected Fracture di RSUD*

dr. Abdoer Rahem –Januari 2012 s/d Desember 2013. *Cdk*. 2015;42(2):97–100.

7. Banskota AK, Spiegel DA, Shrestha S, Shrestha OP, Rajbhandary T. Open reduction for neglected traumatic hip dislocation in children and adolescents. *J Pediatr Orthop*. 2007;27(2):187–91.
8. Kumar S, Dahuja A, Narula MS, Garg S, Kaur R. Neglected hip dislocation: an unusual presentation, its management and review of the literature. *Strateg Trauma Limb Reconstr*. 2017;12(3):189–92.

How to Cite This Article

Lubis HP, Akbar MR. Functional outcome of a year-old neglected posterior hip dislocation after a 2-Stage operation: A case report. *International Journal of Case Reports in Orthopaedics* 2023; 5(2): 01-06.

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