



UNIVERSITY of  
**ROCHESTER**  
MEDICAL CENTER

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**DEPARTMENT OF IMAGING SCIENCES**

**Imaging Sciences Interesting Cases**

**CASE 279**

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**CLINICAL PRESENTATION:** Patient is a 56-year-old female who presented to the emergency department after a fall with right hip pain.

**IMAGING FINDINGS:** Right hip radiographs in AP and lateral projections demonstrate posterior superior dislocation of the total right hip prosthesis.



**Figure 1:** AP view of the right hip.



**Figure 2:** Lateral view of the right hip.

**DIAGNOSIS: Posterior dislocation of hip prosthesis**

**DISCUSSION:** Hip prostheses are most prone to dislocate 3-4 months after the initial surgery. The most common type of hip dislocation is posterior, followed by anterior and least common is central hip dislocation. In native hip dislocations, the goal is reduction within 6 hours after injury. Reducing prosthetic hip dislocations are less urgent than native hips if neurovascular status is maintained. There is no risk of avascular necrosis and osteoarthritis that a dislocated native hip would be predisposed to if not reduced promptly.

Prior to reduction of a total hip prosthesis, it is important to look for a radiolucency adjacent to the prosthesis on radiographs as it would represent a dislocated polyethylene liner. The liner would make reduction more complicated.

The reduction of a prosthetic hip is performed in a similar fashion to the native hip, but less force is used due to the poor bone structure and the risk of iatrogenic fracture. Patients with reduced hip prosthesis can bear weight sooner than with a reduced native hip.

**REFERENCES:**

1. Tham ET, Doty CI. Hip dislocation. E-medicine. Dec 2, 2008. <http://emedicine.medscape.com/article/823471-overview>.
2. Greenspan A. Orthopedic Imaging: A Practical Approach. 4th ed., Lippincott, Williams & Wilkins: Philadelphia, 2004.