

**A New Surgical Technique for Fragility Fractures of the Pelvis, Rommens Classification Type?A: Femur Internal Rotation Reduction Method (FIRM)**

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**Purpose:** The number of patients with fragility fractures of the pelvis (FFPs) is increasing. Recently, open reduction and internal fixation is performed in the case with large dislocation of Rommens classification Type? A, although percutaneous fixation is performed in the case with a little dislocation. It is the surgery for elderly patients, and the less invasive surgery is preferred for FFPs. We present a surgical technique of femur internal rotation reduction method (FIRM) for fragility fractures of the pelvis, Rommens classification Type?A.

**Methods:** FIRM is a reduction method to perform repositioning of the fragment with the lateral rotators by internally rotating the femur. In the procedure, the patient is in a prone position and the femur internally rotated. The obturator foramen and teepee view on the fractured side will be reduced in the fluoroscope. In this way, the supra-acetabular bone canal is approximately straightened from the posterior superior iliac spine (PSIS) to the anterior inferior iliac spine (AIIS), which makes screw insertion possible. For internal fixation, two 9.0-mm Expedium SAI screws are inserted in both sides from the PSIS to AIIS and are connected with 2 transverse rods. Between October 2017 and July 2018, this treatment was performed in 7 patients with Rommens classification Type?A. We retrospectively analyzed 6 patients whom we could follow more than 6 months. All patients were women, and the average age was 84.3 years. All patients fell from the standing position. This treatment was performed in a mean time of 4 days after the injury and 2 days after admission to our hospital.

**Results:** The mean operative time was 144 minutes and the mean blood loss was 198 g. All 6 patients achieved bone union and regained their preinjury walking ability. A pressure ulcer occurred in 1 patient and was treated with bedside lavage and negative pressure wound therapy.

**Conclusion:** Internal fixation using FIRM is a minimum invasive internal fixation method for fragility fractures of the pelvis, Rommens classification Type?A. The patients who underwent this treatment could gain early ambulation and regained their preinjury walking ability.