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## Efficacy of trunk stabilization exercise for treating the female patients with femoroacetabular impingement

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### 【Purpose】

Femoroacetabular impingement (FAI) has been increasingly defined as a source of hip pain and become the most frequent indication for hip arthroscopy. However, conservative treatment for FAI has still remained controversial. The purpose of this study was to examine the efficacy of the additional trunk stabilization exercise for treating conservatively the patients with FAI.

### 【Methods】

Fifteen FAI female patients who met the inclusion criteria were enrolled in this study. There were cam type of FAI in 13 cases, and combined in 2 cases. Patients were divided into two groups of Trunk stabilization exercise group (8 cases) and Control group (7 cases). Trunk exercise group received the additional trunk stabilization exercise program (Plank and Bird-Dog) to general exercise program (including gluteal muscle), while Control group received only general exercise for four weeks. Outcomes were based on these parameters of ① physical characteristics, ② Tegner Activity Score, ③ Numeric Rating Scale : NRS, ④ hip function score (Modified Harris Hip Score : MHHS · Vail Hip Score), ⑤ range of hip joint, ⑥ muscle strength of hip, ⑦ side bridge, ⑧ femoral neck anteversion were measured before and at 4 weeks after intervention. Efficacy of intervention was analyzed using two-way ANOVA.

### 【Results】

There were no significant differences of all parameters between both groups before intervention. We recognized the interaction effect on Vail Hip Score ( $p < 0.05$ ). MHHS and NRS improved more in Trunk exercise group than Control group ( $p < 0.05$ ). We also found significant main effect on hip muscle strength after the intervention for both groups. We could not find significant effect on range of motion of hip joint.

### 【Conclusion】

An additional trunk stabilization exercise could be effective to improve hip function for treating conservatively the female patients with FAI.