Endoscopic Shelf Acetabuloplasty Provides Favorable Clinical Outcomes Following A Failed Arthroscopic Labral Repair In Patients With Hip Dysplasia

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Disclosure

Tomonori Taketa
No conflict of interest
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Recent studies have shown that arthroscopic treatment does not improve clinical symptom. 34 dysplastic hip patients who underwent labral debridement were evaluated. Arthroscopy failed to relieve pain in 24 patients (Parvizi 2009 J Arthroplasty). Subluxation and joint space narrowing was noted after labral repair for mild hip dysplasia (Mei-Dan 2012 Arthroscopy). Matsuda reported 2 cases of young adults who had rapidly progressive osteoarthritis after arthroscopic labral repair (Matsuda 2012 Arthroscopy). One case report of periacetabular osteotomy after failed hip arthroscopy (Jackson 2014).
Background

Isolated arthroscopy for labral lesion in hip dysplasia has no role because the abnormal mechanical overload of acetabular margin is not change.

Our previous study has shown the favorable clinical outcome about endoscopic shelf acetabuloplasty for the patient with hip dysplasia (2012 ISHA).
To clarify the short-term outcomes following endoscopic shelf acetabuloplasty after the failed hip arthroscopic labral repair in patients with developmental dysplasia of the hip.
Material & Methods

From January 2009 to December 2013, 81 dysplastic hip patients (88 hips) underwent initial arthroscopy (labral repair, cam osteoplasty and capsular plication).

Dysplasia and borderline dysplasia were defined as:
- lateral center-edge (CE) angle < 25
- or
- vertical-center-anterior (VCA) < 20
Material & Methods

12 hips (13.6%) required subsequent surgery

exclusion

3 patients total hip arthroplasty
1 patient follow-up time > 1 year

7 patients (8 hips) were enrolled in this study
Material & Methods

Endoscopic shelf acetabuloplasty

After intra-articular procedure, scope was introduced into the extra-capsular space

1. Two guide pins were placed along the capsule and make the slot
2. Free bone graft harvested from ipsilateral iliac crest
3. Inserted bone graft into the slot
Material & Methods

Outcome measures

• Modified Harris Hip Score (mHHS)
• Non-Arthritic Hip Score (NAHS)

Evaluation was performed at the time of initial arthroscopy, before shelf acetabuloplasty, and at one year after shelf.
## Results

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<tr>
<td><strong>Gender</strong></td>
<td>1 male / 6 female</td>
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<tr>
<td><strong>Age</strong></td>
<td>41.1±11.8</td>
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<tr>
<td>mean follow up</td>
<td>21 mos. (17-39)</td>
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<td>duration from initial repair to shelf</td>
<td>10mos. (6-14)</td>
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<td><strong>CE angle</strong></td>
<td>20.8°(15 to 28)</td>
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<tr>
<td><strong>VAC angle</strong></td>
<td>15.7° (-3 to 24)</td>
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mMHS

NHAS

*: p < 0.05
Conclusion

Endoscopic shelf acetabuloplasty could provide favorable short-term clinical outcomes following a failed arthroscopic labral repair in patients with developmental dysplasia of the hip.
References


