REVISION HIP ARTHROSCOPIC SURGERY: Outcome at three years

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In recent years, revision hip arthroscopy has proven an effective treatment for the recurrence of symptoms after hip arthroscopy.

To our knowledge there are only two papers in the orthopaedic literature describing revision hip arthroscopy, and these focus on the indications for revision. Both manuscripts underlined that persistent bone impingement is the most frequent cause for revision. Only Philippon showed one year results of this procedure.

We report the first medium-term results of revision hip arthroscopy.
PATIENTS:

- We studied 74 consecutive patients who underwent a revision hip arthroscopy by the senior author (RNV) in a single hip arthroscopic practice.

- Patients were prospectively assessed before revision surgery and at six weeks, six months, one year, two years and three years after the revision procedure.

- Patient’s age at index and secondary surgery, gender, diagnoses and intraoperative findings at index and revision procedures were prospectively recorded in a custom-made database.
METHODS:

- For an outcome measure, we used the modified Harris hip score (mHHS).

- Success of the procedure was defined as positive when post-operative total scores were higher than pre-operatively; surgical treatment was considered a failure when the total mHHS was unchanged or lower than its pre-operative value.

- Revision hip arthroscopies were performed in the lateral position and under general anaesthesia. Three portals (anterolateral, posterior paratrochanteric and superior) were commonly used, further portals being added if required.

- The following findings, where present, were recorded and treated: chondral lesions (Outerbridge classification more than grade II), labral tears (partial or complete), adhesions, cam impingement lesions and iliopsoas inflammation. Further procedures were performed according to
POPULATION AND INTRAOPERATIVE FINDINGS:

11 were excluded because of deficient follow-up results.

For the remaining 63 patients, the mean age at index surgery was 37 years (19 to 60);

The mean time interval between index and revision surgery was 3 years (5 months to 11 years).
CLINICAL RESULTS

Modified Harris Hip Score

Score (points)

Time (years)
CLINICAL RESULTS

• Statistical analysis showed significant differences between pre-operative and post-operative mHHS at six months, one and two years ($p = 0.01, 0.022$ and $0.019$, respectively). Significant differences between pre-operative scores and follow-up at three years were not demonstrated ($p = 0.433$).

• The success rate, as defined by an improvement in the mHHS, was 54.8% of patients at six months, 63.4% at one year, 63.1% at two years and 55.6% at three years.
SUBSEQUENT REVISIONS

• Four underwent a subsequent total hip replacement, one underwent a resurfacing arthroplasty and five required further hip arthroscopic revision on the same side.

• For these further hip arthroscopic revisions, three had adhesions (two associated with iliopsoas inflammation), one required an acetabular chondroplasty and one was treated for heterotopic ossification.

• The mean time between revision hip arthroscopy and any subsequent procedure was 2 years (6 months to 10 years).
DISCUSSION

In the literature, primary hip arthroscopy has been shown to be effective, with 60% to 83% of patients satisfied with their outcome. Our data show that the success rate of revision hip arthroscopy is lower, at 54.8% of patients at six months, 63.4% at one year, 63.1% at two years, declining to 55.6% by three years. Although these improvement rates might be considered poor, they should perhaps be balanced against the almost 100% certainty that pain would continue if the hip was left untouched.

In our opinion, the low rate of subsequent arthroplasty (5 of 63 patients; 7.94%) and the demonstrated short- and medium-term benefits justify revision hip arthroscopic surgery.
DISCUSSION

Our patients required revision for a number of reasons, including persisting hip pain or a return of symptoms. Our most common intraoperative finding was an acetabular chondral lesion, often associated with re-injury to the labrum. This finding is supported by the literature, which shows an increased failure of primary arthroscopic treatment in patients with global chondral lesions.

Philippon and Heyworth stated that persistent impingement is the main cause for revision while in our series only 31% required revision hip arthroscopy for this diagnosis. This may be because of differences in patient populations or patient selection.
Revision hip arthroscopic surgery for our patients resulted in an improvement in outcome in the first three years after revision, with significant improvement only in the first two years.
REFERENCES


