FACTORS ASSOCIATED TO HIP ARTHROSCOPY COMPLICATIONS IN THE TREATMENT OF FEMOROACETABULAR IMPINGEMENT

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HIP ARTHROSCOPY

REPORTED IN THE LITERATURE:
6.5 – 20%

COMPLICATIONS

Complex procedure
Learning curve
Traction devices
Traction time
METHODS

• Describe the preoperative and intraoperative factors associated with major and minor complications in patients undergoing hip arthroscopy for treatment of FAI.

Inclusion criteria
All patients subjected to hip arthroscopy for treatment of FAI.

Exclusion criteria
Patients with previous hip surgery and incomplete records or follow-up.

OBJECTIVE

Describe the preoperative and intraoperative factors associated with major and minor complications in patients undergoing hip arthroscopy for treatment of FAI.

Prospective Cohort Study – Multicenter.
METHODS

362 hips in 360 Patients included 6 month follow-up as a minimum.

Statistical significance set at $p \leq 0.05$
A power of 80% was calculated for the study for a positive variable.

Group 1

Learning Curve
N: 150

Group 2

No Learning Curve
N: 210

• **Minor complications:**
  Temporary conditions that do not compromise health or physical performance of the patients.

• **Major complications:**
  Permanent conditions that affect the health or physical performance of the patient or that require reoperation.
RESULTS

365 hip arthroscopies were performed

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
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<tbody>
<tr>
<td>59.4%</td>
<td>40.6%</td>
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Median age: 40 years

T-test: no significant difference between ages and sex. (p: 0.136)

Femoral osteoplasty
Acetabular osteoplasty
Labrum debridement
Labral repair
COMPLICATIONS

100% RECOVERY AT THIRD WEEK POST SURGERY

MAJOR
1,1%
- Heterotopic ossification 0.8%
- Infection 0.2%

MINOR
24.6%
- Pudendal Nerve Injury 18.8%
- Lateral dorsal cutaneous nerve injury (FOOT) 4.4%
- Iatrogenic chondral Injury 5.6%
RESULTS

Traction time < 90 minutes decrease the risk of transient neurological injury

RR 0.34 (CI 95% 0.221 – 0.533) p = < 0.001

COMPLICATIONS / LEARNING CURVE

<table>
<thead>
<tr>
<th>Group 1 (n: 150)</th>
<th>Group 2 (n: 212)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning curve</td>
<td>No Learning curve</td>
</tr>
<tr>
<td>43% (65/150)</td>
<td>12.7% (27/212)</td>
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Chi-Squared tests found a positive association between complications and learning curve (p < 0.001)
DISCUSION

- We found a positive association between complications and learning curve ($p < 0.001$)

- Traction time:

  $RR 0.34 (CI 95\% 0.221 - 0.533) p = < 0.001$

  - > 90 minutes
  - 3 times Risk minor complications

**Hip Arthroscopy:**
Low major complication rate

Minor complications were transient:

All patients experienced improvement in symptoms over a period of 3 weeks
CONCLUSION

• Hip arthroscopy is technically demanding and requires:
  1. Learning curve for surgeons
  2. Suitable traction elements
  3. Adequate protection for perineum and feet
  4. Traction times less than 90 minutes reduce risks of transient neurological injuries
REFERENCES

• Yang-Pin Lo, MD; Yi-Sheng Chan, MD; Li-Chang Lien1, MD; Mel S-S Lee, PhD; Kuo-Yao Hsu, MD; Chun-Hsiung Shih2, MD. Complications of Hip Arthroscopy: Analysis of Seventy Three Cases. Chang Gung Med J Vol. 29 No. 1 January-February 2006. pg 86-92.