

SAFETY OF OUTPATIENT HIP ARTHROSCOPY AS COMPARED TO INPATIENT ADMISSION: A PROSPECTIVE COHORT STUDY OF THE FIRST 100 OPERATIVE ARTHROSCOPIES FOR A FELLOWSHIP TRAINED HIP ARTHROSCOPICIST

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INTRODUCTION

- Despite widespread performance of hip arthroscopy on an outpatient basis, no study exists establishing the safety of this practice
- Hip arthroscopy has been associated with a steep learning curve¹ potentially resulting in complications early in the learning period⁴
- Prior studies before the establishment of safe techniques and hip arthroscopy training have shown higher rates of complications than recent publications^{2,3,5,6}
- Consistent pressures to reduce cost and efficiently use inpatient facilities have lead to a push for outpatient care in the United States
- The goal of this project was to sequentially analyze the subjective and objective benefits of overnight hospital stay following hip arthroscopy as compared to same day discharge

MATERIALS AND METHODS

- IRB approved retrospective review of prospectively collected data.
- All patients indicated for arthroscopic hip surgery by a single fellowship surgeon were candidates for consideration
- Exclusion criterion included any prior hip surgery, active worker's compensation claim
- Two candidate groups:
 - First 50 operative procedures who were admitted overnight for observation and examined in the hospital the first postoperative day
 - Second 50 operative procedures discharged same day postoperatively and examined in the office postoperative day one
- All patients received standard postoperative protocol including immediate stationery bike use in the PACU, CPM use 6 hrs daily for first 2 postoperative weeks, and manual passive hip therapy and active hip isometrics
- Groups were compared for rates of patient reported complaints, examiner noted complications, and improvement in modified Harris Hip Score at 6 weeks and 3 months

RESULTS:

- **Patient Characteristics (complete data sets available)**
- Age: m=31 (13-59)
- Gender: Female=24 Male=7
- Symptom Duration: 22.3 months (1-192)
- Inpatient (n=18) Outpatient (n=13)
- **Average Modified Harris Hip Score**
 - **Preop: Inpatient: 54.1 \pm 15.1 Outpatient: 64.2 \pm 12.8**
 - 6 week: Inpatient: 79.5 \pm 20.1 Outpatient: 88.3 \pm 16.5
 - 3 month: Inpatient: 88.3 \pm 16.5 Outpatient: 86.0 \pm 13.5
- No statistical difference between groups by Independent T-test with alpha at 0.05

SURGICAL DIAGNOSIS OF SUBJECTS

Procedure	Frequency (N) Total (Inpatient/Outpatient)	Percentage (%) Total (Inpatient/Outpatient)
Labral Debridement	N=20 (12/8)	64.5% (66.7%/61.5%)
Labral Repair	N=11 (8/3)	35.5% (44.4%/23.1%)
Femoroplasty	N=7 (4/3)	22.6% (22.6%/23.1%)
Acetabuloplasty	N=10 (5/5)	32.3% (27.8%/38.5%)
Synovectomy	N=21 (13/8)	67.7% (72.2%/61.5%)
Loose Body Removal	N=1 (0/1)	3.2% (0%/7.7%)
Trochanteric Bursectomy	N=2 (0/2)	6.5% (0%/15.4%)
Capsular plication	N=1 (0/1)	3.2% (0%/7.7%)
Ligamentum Teres Debride	N=2 (2/0)	6.5% (11.1%/0%)
Psoas recession	N=1 (1/0)	3.2% (5.6%/0%)

FREQUENCY OF DAY 1 COMPLAINTS

Complication	Inpatient	Outpatient
Nausea	N=7 (38.9%)	N=4 (30.8%)
Pain	N=8 (44.4%)	N=2 (15.4%)
Balance Problems	N=7 (50%)	N=4 (30.8%)
Fatigue	N=1 (5.6%)	N=0 (0%)

REPORTED SURGICAL COMPLICATION RATES

- 100/100 available for complication review
- No major complications (death or problem requiring readmission) in either group.
- Minor complications (below) not significantly different in either group

Complication	Inpatient	Outpatient
Infection (superficial)	N=1 (2%)	N=2 (4%)
Syncope	N=0 (0%)	N=1 (2%)
Constipation	N=1 (2%)	N=0 (0%)
Neurapraxia	N=2 (4%)	N=0 (0%)

DISCUSSION: STUDY LIMITATIONS

- Non randomized structure
 - Consecutive case series could mask increased expertise of surgeon in second fifty cases (outpatient group)
 - All cases performed in hospital setting with option for overnight stay
 - Complications defined by examiner and patient reporting (retrospective design)
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DISCUSSION: STRENGTHS

- Provides evidence for equivalent safety of outpatient hip arthroscopy including treatment of femoroacetabular impingement.
- Provides reinforcement of complication rates for use in counseling patients
- Single fellowship trained surgeon with independent review
- Outcomes measures present support results consistent with prior reports

CONCLUSION

- Hip arthroscopy can be performed safely with outpatient discharge the same day as surgery

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