

European Anterior Hip Meeting (EAHM)

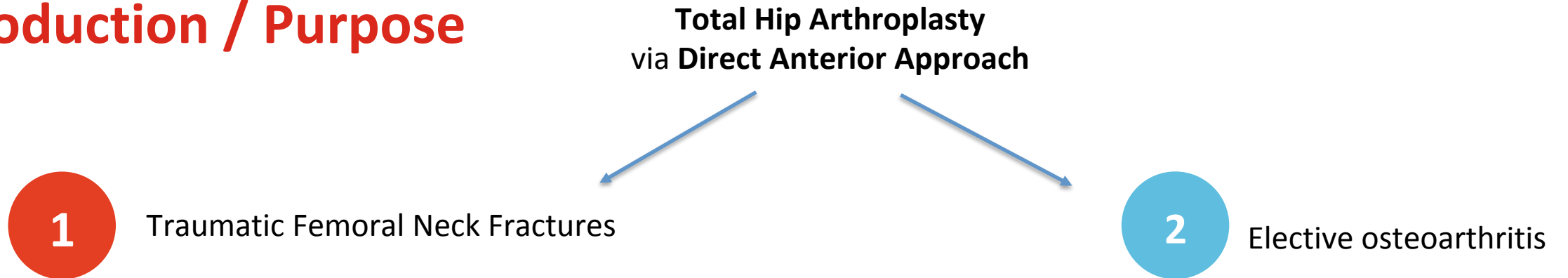
Perioperative Outcomes after Total Hip Arthroplasty via DAA for Fracture Versus Osteoarthritis: A Propensity-Score Matched Analysis

Julia K. Hoffmann, Dominic Simon, Max Lerchenberger, Josephine Deuschle, Lennart Schröder,
Boris M. Holzapfel, Gautier Beckers • *Musculoskeletal University Center Munich (MUM)*

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Introduction / Purpose



RESEARCH QUESTION

Do patients undergoing **primary THA via DAA** due to fractures at our institution demonstrate higher early postoperative complication rates compared to arthroplasty for Osteoarthritis?



Method

171

patients – femoral neck fracture

505

patients – osteoarthritis

- Primary THA via **Direct Anterior Approach**
- Propensity score matching (1:2 nearest-neighbor, no Replacement) balancing age, sex, BMI and ASA score
- Matched outcomes included blood loss, length of stay, and revision surgery

	Fracture (n=171)	Osteoarthritis (n=342)	p-value	SMD
Age, mean (SD)	70.55 (8.98)	69.84 (13.73)	0.538	0.061
Female, n (%)	106 (62)	213 (62)	1.000	0.006
BMI, mean (SD)	23.72 (4.02)	24.24 (3.83)	0.156	0.132
ASA (%)			0.754	0.099
1	4 (2.3)	10 (2.9)		
2	79 (46.2)	157 (45.9)		
3	80 (46.8)	165 (48.2)		
4	8 (4.7)	10 (2.9)		

Table 1. Study Overview/Baseline

SMD Standardized mean difference, ASA American Society of Anesthesiologists



Results

- After matching, **171 fracture patients** were compared with **342 osteoarthritis** controls
- Baseline characteristics were well balanced
- Fracture patients experienced **significantly higher perioperative blood loss** (686 ± 405 mL vs 470 ± 220 mL, $p < 0.001$) and **longer hospital stays** (12.8 ± 15.3 days vs 7.8 ± 4.4 days, $p < 0.001$).
- Revision surgery trended higher in fracture patients (14.6% vs 5.6%), though the low event number limited statistical significance

Perioperative Blood Loss (mL)

Fracture

686

Osteoarthritis

470

Length of Hospital Stay (days)

Fracture

12.8

Osteoarthritis

7.8

14.6%

revision – fracture

5.6%

revision – osteoarthritis



Conclusion

- Hip arthroplasty for femoral neck fracture is associated with greater perioperative blood loss and prolonged hospitalization compared to elective arthroplasty for osteoarthritis, even after rigorous propensity matching. Revision rates were higher in the fracture cohort, reflecting increased procedural complexity and risk.
- These findings align with previous large-scale cohort studies and highlight the need for careful perioperative planning in fracture patients.

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Higher Blood Loss

686 vs 470 mL on average

2

Longer Hospitalization

12.8 vs 7.8 days on average

3

Higher Revision Risk

14.6% vs 5.6% trend



Contact Details



PRESENTER

Ms. Julia Katharina Hoffmann



INSTITUTION

Musculoskeletal University Center Munich (MUM)



EMAIL

j.hoffmann@med.uni-muenchen.de

