Same Complication Rate After Day-case Procedure or Fast-track Procedure After Total Hip And Knee Arthroplasty. A Prospective, Propensity Score-matched Case-control Study

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Disclosure

- JYJ : Paid consultant, B-Braun, FH Orthopedics, Globus Medical – Board Member, CAOS International, GECO
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Rationale

- The optimal course of postoperative rehabilitation after total hip (THA) or knee (TKA) arthroplasty is still debated.
- The current surgeon's resistance to use day-case procedures (DCP) concerns the potential delay in the management of complications and the potentially higher risk of complications related to the very short stay.

- **The objective of this study was to compare the respective risks of complications, readmission and reintervention after DCP or fast-track procedures (FTP) in a French teaching hospital.**

Material – Methods

- 265 cases included.
- The anesthetic, operative and post-operative procedures were standardized.
- The selection of FTP or DCP was done according to surgeon's and patient's choice.
- All patients were contacted after 3 months.
- Complications, readmissions and reinterventions were recorded.
- Severity of complication was analyzed (Clavien-Dindo classification).

Material – Methods

- Selection for DCP:
  - Patient not living alone
  - ASA score < 3
  - Home not too far from the hospital
  - Acceptation of DCP
- Patients were matched in both groups with a ratio of 1:1 by a propensity score calculation using logistic regression including five factors: age, gender, body mass index (BMI), ASA score, procedure performed.
- 91 FTPs (control group) and 91 DCPs (study group) were paired. There were 72 man and 110 women, with a mean age of 67 ± 8 years, and a mean BMI of 30 ± 5 kg/m^2.

Results

Criterion	Study group	Control group	Odd ratio	Significance
Complications	14 (15%)	10 (11%)	1.47	p=0.38
Severity of complications	2.9 ± 0.5	2.6 ± 0.8		p=0.27
Readmissions	14 (15%)	8 (9%)	1.89	p=0.17
Reoperations	13 (14%)	8 (9%)	1.73	p=0.25

Discussion

- The hypothesis was not confirmed.
- The complication rate within the first 3 months was not significantly higher after DCP than after FTP in matched populations.
- Similarly, complication severity, readmission rates and reintervention rates within the first 3 months were not significantly higher after DCP.

- **Concern about the safety of DCPs for THA and TKA appear to be unfounded.**

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