

Patient-specific Prescription of Aspirin as Thromboprophylaxis After THA or TKA

Case-control Study With Propensity Score Matching

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Disclosure

- JYJ : Paid Consultant, B-Braun, FH Orthopedics, Globus Medical – Member of Board, CAOS International, GECO
- AD : /

Rationale

- The aim of this study was to validate the most recent recommendations of the European Society of Anaesthesiology (ESA) by comparing the thromboembolic and haemorrhagic risk in a population of unselected patients undergoing unilateral total hip (THA) or knee (TKA) arthroplasty who followed a fast-track procedure (FTP), according to the thromboprophylactic medication given:
 - either systematic low molecular weight heparin (LMWH - control group)
 - or aspirin or LMWH depending on the patients' risk factors (study group)

Material – Methods

- All patients who underwent unilateral THA or TKA between January 2018 and December 2020, and who were operated on by the principal investigator, were eligible for inclusion in the study group.
- The control group was extracted from a historic series of 1949 patients who were operated on between October 2016 and October 2017.
- The patients were matched in the two groups by propensity score matching using logistic regression, including age, sex, body mass index (BMI), ASA classification, personal history of a TEE, previous use of anticoagulant medication and the intervention performed.
- In the control group, patients received treatment with LMWH.
- In the study group, aspirin was administered if the patient was not morbidly obese and had no previous history of a serious TEE, or LMWH was administered for other patients according to the same protocol as the control group.

Results

- 203 consecutive patients were included into the study group – 203 were matched from the control group
- There were no significant differences in preoperative criteria between the control and study groups except for the prophylactic treatment administered.
- Two TEEs occurred in the control group (1%) and three in the study group (1%) (P=0.65):
 - 2/51 patients treated with LMWH
 - 1/152 patients treated with aspirin (P=0.09)
- Five haemorrhagic complications occurred in the control group (2%) and four in the study group (2%):
 - 2/51 patients treated with LMWH
 - 2/152 patients treated with aspirin (P=0.77).

Discussion

- Low rate of TEEs was observed in both groups
- Low rate of bleeding complications was observed in both groups
- Administration of aspirin instead of LMWH as a prophylactic treatment of TEEs after primary THA and TKA might be the best compromise between efficiency and safety when fast-track rehabilitation is used

Limitations

- Observational study
 - Prospective but no randomisation
 - No concurrent control group
 - Few cases only
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- Randomized trial ?
 - Incidence of TEEs is low
 - Incidence of bleeding complication is low
 - > 5,000 cases per group!

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Feasability?

References

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