

The Outpatient Procedure does Not Increase the Risk of Infection after Total Hip and Knee Replacement

Jean-yves Jenny¹, Aymard Charles de Ladoucette², Julien Chouteau, Guillaume Demey³, Thomas BROSSET, Pascal CARIVEN, Grégory BIETTE⁴, Marc-Pierre Henry⁵, Christophe Hulet, Philippe BOISRENOULT, Jerome VILLEMENOT, Courtin Cyril, Pierre Henky⁶, Claude Schwartz⁷, Patrice Mertl, Bonin Nicolas, Damien BROCHARD

¹Pôle Locomax, ²Clinique de L'Union, ³Lyon Ortho Clinic, ⁴Clinique Belharra, ⁵Centre Hospitalier Univ De Brest, ⁶Selarl,

⁷Trauma and Orthopedic Surgery

INTRODUCTION:

Fast-track procedures (FTPs) after lower limb arthroplasty have become routine, and outpatient procedures (OPPs) have appeared more recently. There is still apprehension among some practitioners regarding the safety of the latter, especially regarding the monitoring of wound healing and the risk of surgical site infection. The objective of this study was to compare the risk of surgical site infection after total hip and knee replacement in patients operated on according to whether the patient underwent a FTP or an OPP.

METHODS:

A prospective multicenter study was conducted in two chronological stages. Patients undergoing first-line total hip or knee replacement surgery at participating centers were selected; cases with known active or old infection were excluded. In the first stage, all patients were operated on using a FTP. In the second stage, patients underwent either a FTP or a OPP, depending on the joint choice of the surgeon and the patient. All patients were followed for one year, and the occurrence of a scarring event (SE) or surgical site infection (SSI) was noted. Patients were separated into three groups: exclusive FTP, selected FTP procedure, OPP. The rates of SE and/or SSI were compared in the three groups by a Chi² test at the 5% threshold.

RESULTS:

A total of 3,089 patients were included: 1,949 in exclusive FTP, 1,337 in selected FTP, and 313 in OPP. There was no significant difference in the initial demographic and medical criteria between the three groups. Seventy infectious complications were recorded: 36 (1.8%) in the exclusive FTP group (of which 20 SEs and 16 SSIs), 27 (2.0%) in the selected FTP group (of which 15 SEs and 12 SSIs), and 7 (2.2%) in the OPP group (of which 4 SEs and 3 SSIs) (p=n.s.). The rate of SSI at one year was 0.8% in the exclusive FTP group, 0.9% in the selected FTP group, and 1.0% in the OPP group (p=n.s.)

DISCUSSION AND CONCLUSION:

The hypothesis was not confirmed: there was no significant difference between the rates of SEs and SSIs in the three groups of patients undergoing exclusive or selected FTP or OPP. Therefore, there is no reason to fear an increase in the risk of CI or SSI due to the shortening of the duration of hospitalization, including for the ambulatory procedure where hospitalization is reduced to its simplest form and close monitoring of the healing is not possible.