

Pain After Forefoot Surgery Comparing Day-Surgery and Conventional Hospitalization: A Continuous Prospective Study of 317 Patients

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Introduction/Purpose: At present, there are no guidelines for foot-surgery procedures that can be performed in day-surgery. The aim of our study was to evaluate early postoperative pain after forefoot day-surgery compared to a conventional hospitalization. The hypothesis was that patients operated in day-surgery showed as much pain as those hospitalized, without more complications.

Methods: All patients operated for forefoot surgery by one senior surgeon (JLB) were included; those eligible for day-surgery according to SFAR (French Society of Anesthesia and Reanimation) recommendations were operated in day-surgery. Patients were distributed into 4 groups according to surgical procedure: 1.minor procedure (isolated lesser ray) – 2.light (isolated first ray) – 3.intermediate (first ray plus one or two lesser rays) – 4.complex (all forefoot). Patients living alone, further than 50 kilometres from our hospital, or in group 4 were hospitalized for 48 hours.

The study included 317 patients; 40% were operated on in day-surgery. Those hospitalized were significantly older (60 ± 3.8 versus 55 ± 3.9 , $p=0.0006$) and with higher ASA scores ($p=0.0024$) without difference in comorbidity. Main etiology was hallux valgus (70% in both groups); revision surgery counted for 9% of etiologies in the day-surgery versus 14% in the hospitalization group.

Results: The highest daily pain rate was on day 1 ($4.2/10 \pm 2.5$ in day-surgery versus $4.4/10 \pm 2.4$ in hospitalization, $p=0.53$) without significant difference between groups. Pain was evaluated as extreme ($\geq 8/10$) by 9% of patients in day-surgery versus 11% of those hospitalized. We found a statistically significant difference at day 0 for the light surgical procedures (category 2), with higher pain in day-surgery (4.4 ± 2.4 versus 3.3 ± 2.5 , $p=0.02$). Concerning anaesthesia, time to recovery of sensitivity after nerve block was comparable regardless of the type of hospitalization or surgical procedure ($6.0 \text{ hours} \pm 3.7$ in day-surgery versus $5.8 \text{ hours} \pm 5.4$, $p=0.9$). One patient in the day-surgery group had crossover for bleeding. Concerning the self-assessment questionnaire, patients operated in day-surgery described significantly more alertness and attention disturbances following surgery ($p=0.01$), and more frequent disappearance of pain after day 7 ($p=0.02$).

Conclusion: There was no significant difference in pain or complications between groups. All patients were very satisfied. We can then reasonably recommend performing forefoot day-surgery in good collaboration with the anaesthetist and patient, without exposing the latter to greater pain and further complications.

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