Improving Peri-operative Outcomes in Hip Fracture Patients: a Quality Improvement Process

Eric Makmur, Katie Williams, Geena Mathew

NHS
Southend University Hospital
NHS Foundation Trust

Introduction

Hip fracture patients receiving multi-disciplinary, formalised care pathways have better outcomes. Key issues including delirium, mobilisation, pain and anaemia are emphasised nationally as key performance indicators.

We introduced anaesthesia guidelines for hip fracture surgery in mid-2019 to standardise good practice; this subsequent audit evaluating departmental practice and perioperative outcomes has been used as a platform to launch our quality improvement project.

Methods

We conducted a retrospective audit on all hip fracture cases from December 2019 to January 2020 with clinical governance approval.

Data collected included patient demographics, anaesthetic techniques and post-operative complications such as pain, delirium, transfusion requirements, cardiorespiratory complications, subsequent admission length and mortality.

We employed a quality improvement process engaging all trauma anaesthetists and the wider multidisciplinary team.

Results

Fifty patients of median age 84 and median length of stay of 15 days (11-20) were included.

An even mix of general (GA) vs. spinal anaesthesia (SA) was observed. Half of the SA patients had sedation (Fig. 1).

10 (41.6%) of the GA patients had intra-operative opioids while 7 (26.9%) received intrathecal opioids during SA.

Majority of patients received a fascia iliaca block (FIB) in theatres. 8 (80%) who did not receive a FIB had spinal anaesthesia (Fig. 2).

24 (48%) of the patients received tranexamic acid (TXA).

Post-operative outcomes are detailed in Fig. 3. The 2 inpatient deaths were due to pneumonia and were GA patients.

Fig. 1: Type of Anaesthetic

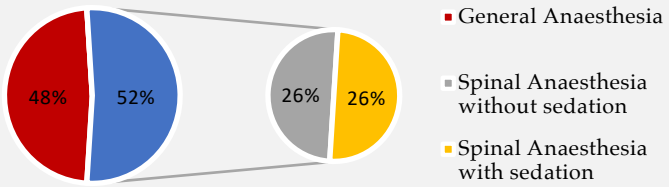


Fig. 2: Fascia Iliaca Block

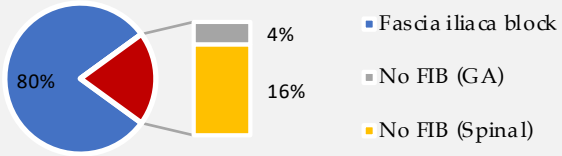
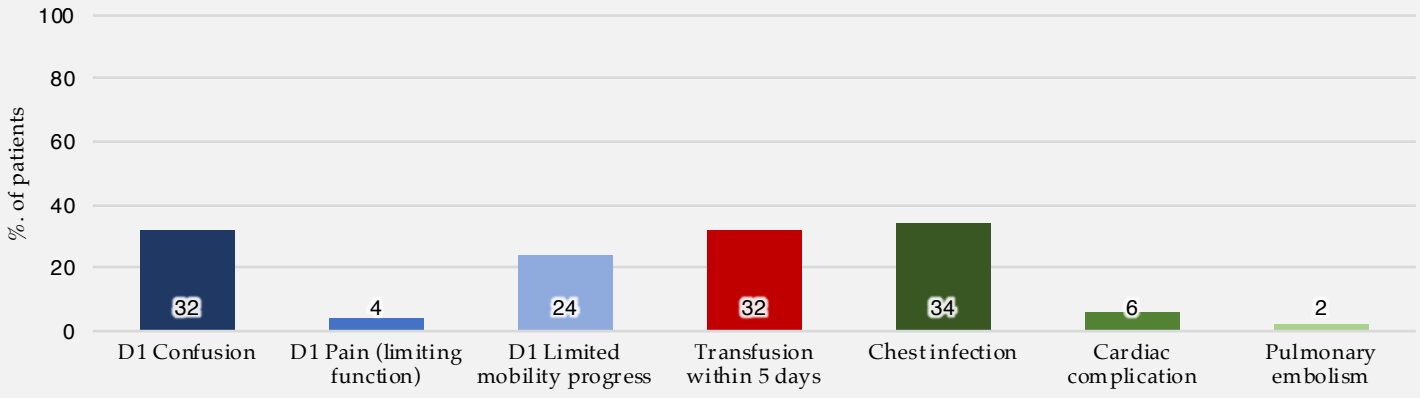


Fig. 3: Post-operative Outcomes



Conclusions & Action Plan

Our QI project has seen improvements in FIB rates and opioid reduction, and is currently pivoting towards reducing the significant blood transfusion, delirium and chest infection rates.

Following evidence-based presentations at governance meetings, departmental consensus was reached on anaesthetic techniques including low-dose spinal anaesthetic, avoidance of sedation and routine use of TXA.

Collaboration and additional training for physiotherapists is facilitating increased peri-operative delivery of chest physiotherapy for high-risk patients on orthopaedic wards.

Building on our progress we also aim to further engage and educate the wider multidisciplinary team, while empowering patients & carers with initiatives such as patient information leaflets for chest physiotherapy.