

Improving Preoperative Analgesia for Fractured Neck of Femur – A Retrospective Analysis of an Ultrasound-guided Fascia Iliaca Catheter Service

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Introduction

- Over 64,000 patients are admitted with fractured neck of femur (FNOF) in the UK each year, with 30 day mortality of 8%¹.
- Regional analgesia in these patients is associated with better pain relief, a reduction in delirium² and cardiac events³.
- Since 2013, our institution has provided a preoperative ultrasound-guided fascia iliaca catheter (FIC) service for patients admitted with fractured neck of femur

Methods

- Following approval from our audit department, data was extracted from our nerve catheter database, the National Hip Fracture Database, and incident reporting system from September 2013 until January 2016.
- Data collected include, the effectiveness of the catheter, complications during insertion, 30 day mortality, ASA score, time from admission to surgery, length of hospital admission and mobilisation on first postoperative day.
- Outcome measures were then compared against the cohort of patients who did not receive fascia iliaca catheter in the study period. Categorical data were analysed with the Chi-square test.

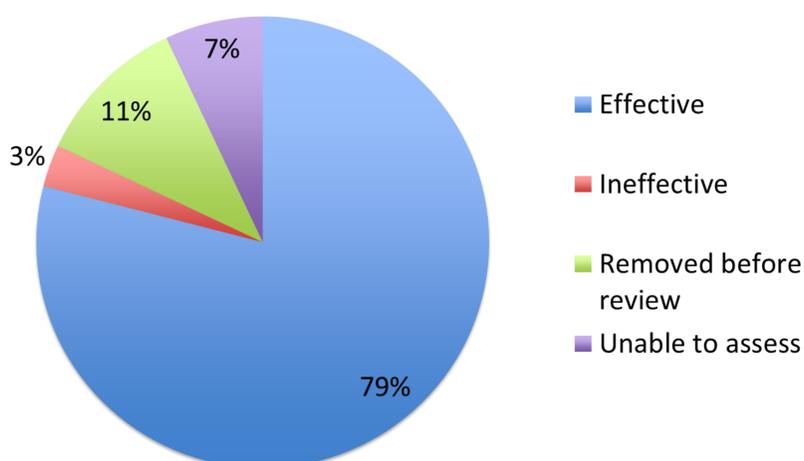
Results

- Out of 1028 patients admitted with FNOF during the study period, 303 (29.5%) had a FIC inserted.
- Provision was higher for patients admitted between 7am and 5pm (43.0%) compared with out of these hours (20.6%).
- Only 102 patients (10.0%) received operative fracture fixation within 12 hours of admission.
- As rated by the acute pain team, 79% of catheters were effective, 3% ineffective, 11% removed prior to review, and 7% not possible to assess(Figure1).
- No complications were reported as a result of the 457 FICs in the pain database. There was a non-significant trend towards decreased mortality in the FIC group compared with the no-FIC group (7.3% vs 8.6%, p=0.45).
- There was no significant difference in rates of mobilisation on the day of surgery in patients with FICs compare with those without (66.2% vs 71.0%, p=0.20).

Conclusion

- The use of fascia iliaca catheter is safe and effective and appears not to adversely affect postoperative mobility.
- Few patients receive operative intervention within the duration of a single-shot nerve block.
- Use of a continuous regional anaesthetic technique does not appear to significantly affect mortality

Figure 1: Effectiveness of fascia iliaca catheters



References

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