

Development of a fascia iliaca catheter service for fractured neck of femur – 2 year experience

F Eljelani, J Womack, B Goodman, A Blackburn, MK Varma
Department of Perioperative and Critical Care, Royal Victoria Infirmary, Newcastle upon Tyne, UK. Email for correspondence: Ben.Goodman@nuth.nhs.uk

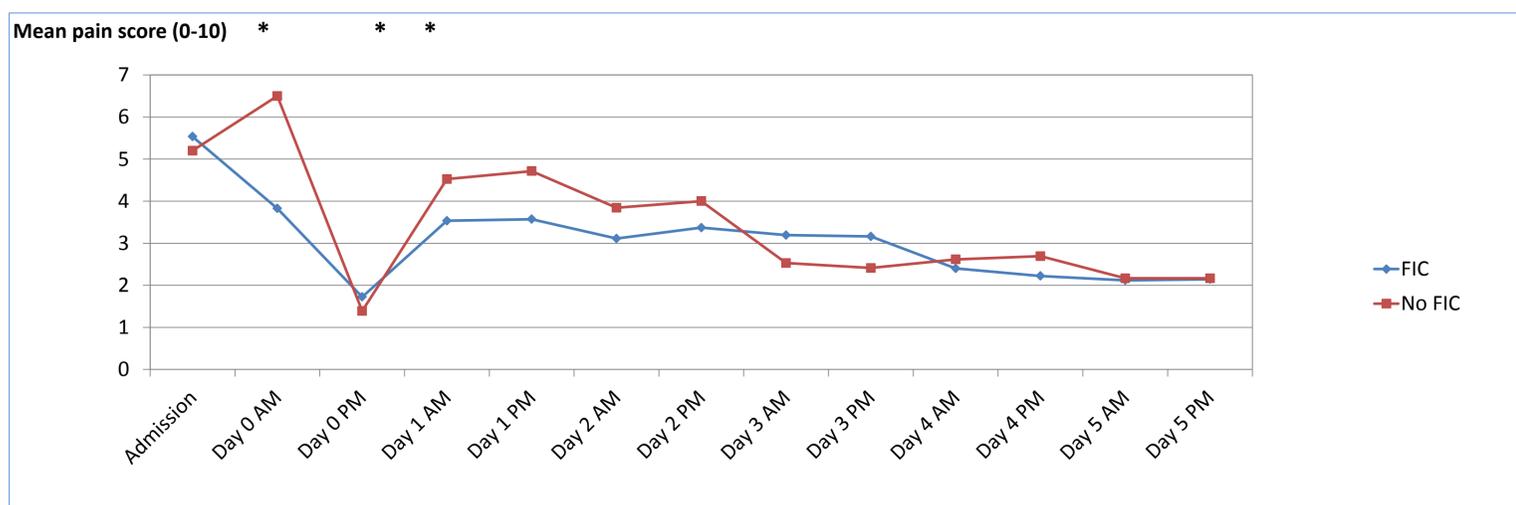
The Newcastle upon Tyne Hospitals NHS Foundation Trust 

Introduction

- Patients sustaining fractured neck of femur (FNOF) can experience significant pain perioperatively. Regional analgesia provides better pain relief and reduced perioperative delirium and length of stay compared to opiate-based analgesia¹.
- In 2013 we introduced a fascia iliaca catheter (FIC) service to provide perioperative analgesia to patients sustaining FNOF admitted to our institution.
- As part of a fast-track admission pathway, patients with FNOF are referred by the emergency department to a regional anaesthetist for placement of a FIC.
- We perform an ultrasound guided supra-inguinal fascia iliaca block² using 30-40ml Levobupivacaine 0.25%, followed by an infusion of 6-8 ml/hr Levobupivacaine 0.125% via a catheter. This is continued perioperatively until 24-48 hours after surgery

Results

- Over a two year period, 1028 patients were admitted with a FNOF; 303 of these received a perioperative FIC. Of the remaining patients, 96% received a single-shot regional anaesthetic technique in theatre. The proportion of patients receiving a perioperative FIC increased from 18% in 2013 to 33% in 2015.
- 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. No complications were reported as a result of the FICs.
- The prospective 2-month audit collected data from 81 patients (43 received FICs, 38 did not). Reasons for not receiving a FIC included lack of availability of a regional anaesthetist, coagulopathy, patient refusal and agitation.
- Pain scores on movement are shown in Figure 1. Pain scores were significantly lower in patients with a FIC on the morning of surgery and the first postoperative day. There was no statistically significant difference in resting pain scores between the groups



Methods

- Following approval from our local research and development department, we undertook this service evaluation.
- Data concerning patients with a FNOF was obtained from our institution's acute pain database and the National Hip Fracture Database.
- In October and November 2015, we undertook a prospective audit of consecutive patients admitted with FNOF.
- Differences between patients with and without a FIC were compared using the Mann-Whitney U test

Discussion

- Patients receiving a perioperative FIC have reduced pain scores on movement than those without.
- This effect is most noticeable on the morning of surgery, but the benefit extends to the first postoperative day, after any single-shot technique used in theatre has worn off.
- The main barrier to increased perioperative FIC use in our institution is the availability of a regional anaesthetist

Discussion

- We have successfully implemented a service providing fascia iliaca catheters to provide perioperative analgesia for patients sustaining a fractured neck of femur

References 1. Rashiq S, et al. Efficacy of supplemental peripheral nerve blockade for hip fracture surgery: multiple treatment comparison. *Can J Anesth*, 2013, 60:230-243.
2. Hebbard P et al. Ultrasound-guided supra-inguinal fascia iliaca nerve block: a cadaveric evaluation of a novel approach. *Anaesthesia* 2011, 66:300-305.