

# P11

## PRESENTATION OF A NOVEL TECHNIQUE FOR THE FASCIA ILIACA COMPARTMENT BLOCK

*J. Collins, Bristol Royal Hospital for Children, UK*

### **Background/Context**

Children with developmental hip dysplasia and other complex medical disorders may require pelvic, hip and femoral surgery during their childhood. These surgeries are often associated with severe post-operative pain, necessitating substantial opioid administration. Multimodal analgesia and regional anaesthesia form an essential component of pain management and enhanced recovery.

### **Problem**

For unilateral pelvic and femoral osteotomies, a lumbar epidural was traditionally used, and still is for bilateral surgery. Lumbar epidurals present challenges; abnormal spinal anatomy in spina bifida, challenging insertion and variable spread in those with musculoskeletal disease or previous spinal surgery. Post-operative hypotension or motor block frequently leads to intermittent cessation of infusions, resulting in sub-optimal drug administration and poor analgesia. Patients require a urinary catheter, risking urinary tract infections and reduced patient satisfaction. Hip spica application limits alternative strategies, such as peripheral nerve infusions.

### **Strategy for Change**

For unilateral hip, pelvic and femoral surgery, we developed a modified suprainguinal approach to inserting a fascia iliaca catheter, which was tunnelled toward the umbilicus. A window is made in the midline to allow post-operative visualisation whilst maintaining hip spica integrity. This method was used in 6 patients between February and October 2022.

### **Measure of Improvement**

The twice daily pain team entries in the patient's digital notes were reviewed; we recorded pain scores at rest and on movement, PCA/NCA usage, pain relief side effects and patient/parent satisfaction. Pain scores were low, with only one case reporting pain at rest and 3 reporting pain on movement in the first 48 hours post-operatively, with the highest score being 3/10 on the FLACC scale. Five cases reported no side effects. One case developed a rash which prompted the catheter infusion to be paused then restarted. All parents were satisfied or more than satisfied with the pain management.

### **Lessons Learnt**

Excellent communication is needed with surgeons and plaster technicians to understand the planned surgery and incision sites. Adductor release surgery may result in catheter damage, and may prompt

a post-operative insertion as opposed to at induction. One catheter had to be removed on day 1 due to MRI incompatibility; we now use MRI compatible equipment. The catheter is infusing in the opposite direction so the potential for less pelvic/lumbar plexus spread needs to be considered.

### **Message for Others**

We present a novel approach to the suprainguinal fascia iliaca compartment for children having unilateral surgery and spica application, utilising a medial to lateral approach that has not previously been described in the literature. Tunnelling of the catheter to the midline, ensures the visualisation window does not compromise spica integrity and hip stability whilst allowing appropriate monitoring. This technique could mitigate the problems associated with epidurals, along with a reduction in opioid induced side effects.