APPENDIX 1.

TECHNICAL DESCRIPTION OF PENG AND FNB BLOCK PLACEMENT

For placement of the PENG block, a low frequency (2.5-5MHz) curvilinear ultrasound probe was used. The transducer was placed in a longitudinal plane with the lateral edge over the anterior inferior iliac spine. The median edge of the probe was rotated caudally to obtain an adequate view of the fascial plane under the psoas tendon along the acetabulum. (Figure 1) A 21-Gauge 100mm Sonoplex needle (Pajunk, Geisingen, Germany) was inserted and an aspiration check performed prior to a 20 mL injection of local anesthetic solution into the sub-psoas fascial plane. (Figure 2). The local anesthetic was ropivacaine 0.75%, unless the patient weighed less than 50 kilograms in which case the concentration was adjusted for a maximum of 3mg/kg, and volume maintained at 20mLs.

To perform the FNB, a high frequency (5-10MHz) linear ultrasound transducer was used, placed over the inguinal crease, and the femoral nerve was visualised at this level. A 21-Gauge 50mm Sonoplex needle was inserted and an aspiration check performed prior to perineural local anaesthetic injection of 20mLs.

FIGURE LEGENDS

Figure S1: Ultrasound sonoanatomy of PENG block

Ultrasound image obtained for PENG block placement using a curvilinear probe.

IPE: iliopubic eminence

AAR: anterior acetabular rim

PT: psoas tendon

IL: iliacus muscle

IP: iliopsoas muscle

Figure S2: Injection and spread of local anesthetic in PENG block placement

Injection of local anesthetic into the tissue plane under the psoas tendon. Hydrodissection with a white fascial layer above is clearly seen. The path of the needle is demarcated by the white line.

PT: psoas tendon

LA: local anesthetic