TRANSVERSUS ABDOMINIS PLANE BLOCK AFTER CAESAREAN SECTION

It is well recognised that Caesarean section is associated with substantial post operative pain and discomfort. Effective pain relief allows earlier ambulation, improved infant care and reduced post operative complications.

It has been shown that along with normal modes of analgesia the Transversus Abdominis Plane (TAP) block can reduce the post operative opioid requirement.

The lateral abdominal wall consists of three muscle layers and their fascial sheaths, the external oblique, internal oblique and the transverses abdominis.

By delivering local anaesthetic into the transverse abdominis plane, it is possible to block the sensory nerves of the anterior abdominal wall. The following is a basic guide to ultrasound guided placement of local anaesthetic to the correct plane:

1. Informed consent for regional block

2. Draw up and label 2 sets of local anaesthetic. (you could use 30mls of 0.25% Levobupivicaine on each side for a 75kg patient based 2 mg/kg maximum dose. Reduce the dose if patient is small.)

3. You can use either the Tuohy needle (18 or 19g) or the Stimuplex needle for the block.

4. Once LSCS is complete and dressing has been applied to the wound, mark the costal margins and iliac crests bilaterally.

5. Using ultrasound and starting as close to the incision site as possible identify the structures (see fig 1). If you are struggling to identify the structure start medially at the Rectus Abdominis and follow the structures lateral until the fascial planes are identified (figure 2). Alternatively you can scan from lateral to medial from Angle of petit where you can see all three muscle planes. You can confirm the disappearance of transverse abdominus muscle midway between Angle of petit and the umbilicus. Once you have identified the position of the transverse abdominus muscle, move slightly lateral towards the angle of petit and inject into the plane between internal oblique and transverse abdominus muscle, introducing the needle from medial end of probe towards flanks.

6. With an aseptic in plane technique, pass your injection needle until it reaches the correct plane and inject a few mls of local anaesthetic, you should see the planes separating. Continue and inject the rest of the solution.

7. Repeat on the opposite side.
Fig 1: (2)

A detailed description with good USS images can be found at:

http://www.usra.ca/sb_tap

References
