USS Guided Fascia Iliaca Block

Regional anaesthesia and analgesia blocking the femoral, lateral cutaneous, and obturator nerves

Anaesthesia Distribution. Left = dermatomes, middle = myotomes, right: osteotomes

Indications

- Femoral fracture
- Anterior thigh wounds requiring exploration and washout

Contraindications

- Local anaesthetic allergy
- Open wound/infection at injection site

Potential complications

- Allergy/anaphylaxis
- Direct neural trauma
- Vascular injury
- Vascular infiltration of local anaesthetic and haemodynamic collapse

Equipment

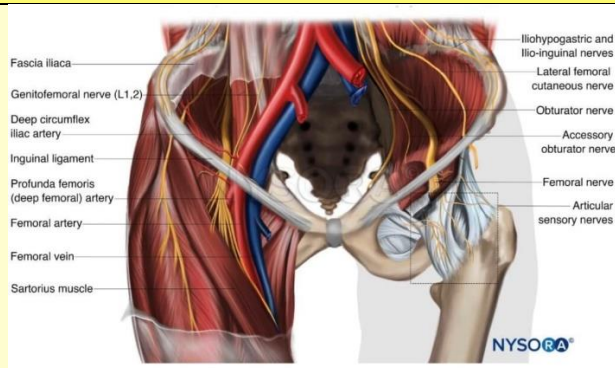
- Monitoring: continuous ECG and SpO_2
- Ultrasound machine with high frequency linear probe, superficial or nerve preset, image optimised before becoming sterile (patient, probe, preset, position, image optimisation)
- Sterile probe cover
- Sterile gloves
- Needles for injection (regional nerve block needle ideal and 23-25G needle)
- Low pressure extension tubing if available
- Local anaesthetic and dilutant 0.9% NaCl as described on next page

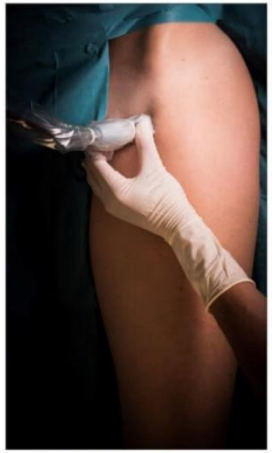
Procedure

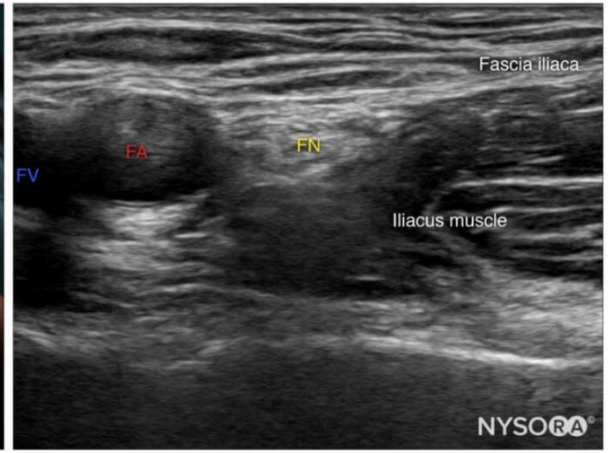
1. Place the Ultrasound machine on the opposite side of the bed to where the block is being performed.
2. Place the Linear Transducer just superior to the inguinal crease directly over the femoral nerve. Remember nerve, artery, vein from lateral to medial
3. Probe marker points to the patients right (your left)
4. Locate the femoral nerve and artery (the fascia iliaca lies above these structures)
5. Using 'In plane' needle visualisation insert the needle from lateral to medial under the fascia iliaca
6. Aspirate prior to injection to ensure it is not in the vessel
7. Slowly inject the Ropivacaine under the fascia iliaca – you should see the hypoecoic fluid between the fascia and iliopsoas muscle, spreading down to surround the femoral nerve.

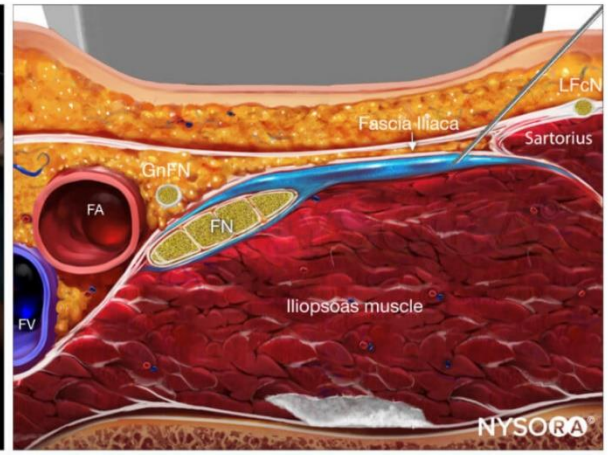
Post Procedure Care

1. Simple dressing for injection site
2. Review of injection site for bleeding or pseudoaneurysm formation
3. Continue monitoring for 30mins post injection to ensure there is no cardiac arrhythmia
4. Consider opiate analgesia and immobilisation of lower limb in case of block failure









Ropivacaine Calculation Table 0.75% = 75mg/10mL Dose = 3mg/kg to a maximum of 150mg (20mL) Dilute with an equal volume of 0.9% NaCl					
Body Weight	**Maximum dose (3mg/kg)**	**Maximum Volume 0.75% Ropivacaine (0.4mL/kg)**	**Total volume (Ropivacaine + 0.9% NaCl)**	**Antidote for local anaesthetic toxicity** Intralipid 20% (100g/500mL) Find in AED Resus drug room	
				Initial dose 1.5mL/kg over 1 min	Repeat bolus at 5 min intervals until improvement (up to a max of 8 doses)
5kg	15mg	2mL	4mL	7.5mL	7.5mL
6kg	18mg	2.4mL	4.8mL	9mL	9mL
7kg	21mg	2.8mL	5.6mL	10.5mL	10.5mL
8kg	24mg	3.2mL	6.4mL	12mL	12mL
9kg	27mg	3.6mL	7.2mL	13.5mL	13.5mL
10kg	30mg	4mL	8mL	15mL	15mL
12.5kg	37.5mg	5mL	10mL	18.75mL	18.75mL
15kg	45mg	6mL	12mL	22.5mL	22.5mL
17.5kg	52.5mg	7mL	14mL	26.25mL	26.25mL
20kg	60mg	8mL	16mL	30mL	30mL
22.5kg	67.5mg	9mL	18mL	33.75mL	33.75mL
25kg	75mg	10mL	20mL	37.5mL	37.5mL
27.5kg	82.5mg	11mL	22mL	41.25mL	41.25mL
30kg	90mg	12mL	24mL	45mL	45mL
35kg	105mg	14mL	28mL	52.5mL	52.5mL
40kg	120mg	16mL	32mL	60mL	60mL
45kg	135mg	18mL	36mL	67.5mL	67.5mL
≥50kg	150mg	20mL	40mL	75mL	75mL
75kg	-	-	-	112.5mL	112.5mL