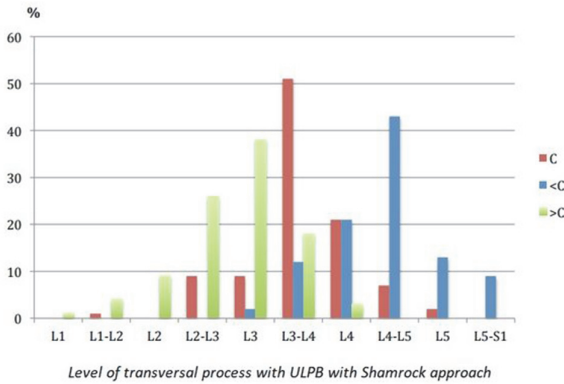


**Results** The demographic characteristics are described on the table below. On 100 compared approaches, we reported that a ULPB with a TA is projected between the transversal process of L3 and L4 ( 51%), L4 (21%) and L3 (9%). By tilting the probe we can access up to L1 transverse process ( 1%). Lumbar plexus was not visualized in 12% of cases in PSA and in 1% in TA.

Abstract B17 Table 1

Demographic characteristics	
Age , years, mean (SD)	32(7.7)
Sex (F/M)	38/22
Weight, kg (SD)	68 (14)
BMI, kg/m2 (SD)	23(3.2)



Abstract B17 Figure 2

**Conclusions** A TA for an UPLB leads to an unexpected higher level than L4. We recommend to perform a previsualization with a PSA to strictly identify a L4 level of puncture.

**B18** **ULTRASOUND IS SUPERIOR THAN INJECTION PRESSURE MONITORING DETECTING THE LOW-VOLUME INTRANEURAL INJECTION**

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**Background and Aims** Inadvertent intraneural injection is not infrequent during peripheral nerve blocks. To this end, injection pressure monitoring is suggested as a safeguard method that warns of a potentially hazardous needle tip location. However, doubts remain if this method is superior to the sonographic nerve swelling in terms of earlier detection of the intraneural injection.

**Methods** A cadaveric study was designed to assess injection pressures during an ultrasound-guided intraneural injection of the median nerve. We hypothesized that the sonographic swelling occurred first than elevated injection pressures (>15 pound per square inch) using an in-line monitor. 33 injections of 11 median nerves from unembalmed human cadavers were performed at proximal, mid and distal locations. 1 ml of a mixture of local anesthetic and methylene blue was injected at 10 ml/min. Afterwards, dissection was performed to assess spread location. Videos of the procedures including ultrasound

images were blindly analyzed to evaluate nerve swelling and injection pressures.

**Results** 31 injections were analyzed (2 were excluded due to uncertain needle tip location). >15 pound per square inch was attained in 6 injections (19%) following a mean volume of 0.7 ml. Nerve swelling was evident in all 31 injections (100%) with a mean volume of 0.4 ml. Upon dissection, spread was confirmed intraneural in all injections, with a proximal-distal longitudinal diffusion of an average 6 cm per injection.

**Conclusions** Ultrasound is a more sensitive and earlier indicator of the intraneural injection than injection pressure monitoring. Further research is required to consolidate the role of pressure monitors in the clinical setting.

**B19** **COMPARISON OF ONSET OF ACTION FOR ULTRASOUND GUIDED SCIATIC NERVE BLOCK AT PRE BIFURCATION AND POST BIFURCATION LEVEL IN PATIENTS UNDERGOING LOWER EXTREMITY SURGERY**

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10.1136/rapm-2022-ESRA.94

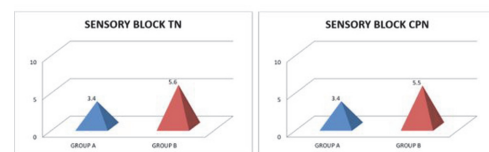
**Background and Aims** Sciatic nerve block is widely used alone or in association with other nerve blocks for lower limb surgeries. For below knee surgical procedures distal sciatic nerve block is frequently used. When long acting local anaesthetic such as Bupivacaine is administered irrespective of nerve localization technique complete sensory and motor block are often associated with slow onset of time which is usually 20 - 60 minutes. This study aimed to evaluate and compare the onset of action of sciatic nerve block when given proximal to its bifurcation and immediately after its bifurcation into Tibial and Common peroneal nerves under ultrasound guidance.

**Methods** Ultrasound guided sub paraneural popliteal sciatic nerve block was performed in 50 patients undergoing lower extremity surgeries. These patients were randomly divided into group A and group B. Where in group A, patients received 20 ml of 0.5% Bupivacaine 8 cm above the bifurcation and in group B, patients received 20 ml of 0.5% Bupivacaine immediately after the bifurcation of sciatic nerve into Tibial and Common peroneal nerves. The performance time and adverse events were recorded.

**Results** Patients in group A had shorter onset of both sensory and motor block compared to group B which is statistically significant.

ONSET OF SENSORY BLOCK	GROUP A		GROUP B		UNPAIRED T TEST P VALUE
	MEAN (min)	SD (min)	MEAN (min)	SD (min)	
TN	3.4	.8	5.6	1.3	<0.001
CPN	3.4	.8	5.5	1.3	<0.001

Comparison of means for Onset of sensory block between the groups

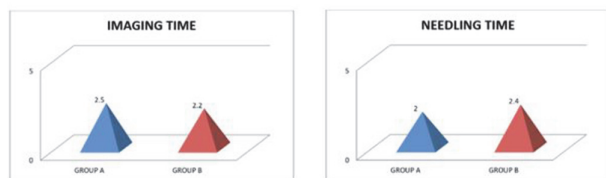


Graph of onset of Sensory Block, iTN and ii)CPN

Abstract B19 Figure 1

TIME (min)	GROUP A		GROUP B		UNPAIRED T TEST P VALUE
	MEAN	SD	MEAN	SD	
IMAGING TIME	2.5	.6	2.2	.5	0.024
NEEDLING TIME	2.0	.5	2.4	.6	0.057
TOTAL TIME	4.5	.9	4.5	1.0	0.766

Comparison of means for Time taken to perform block between the groups



Graph of Imaging Time and Needling Time

**Abstract B19 Figure 2**

Total time taken to perform sciatic nerve block was comparable between the groups. **Conclusions** Popliteal sciatic nerve block given at pre bifurcation has faster onset of action compared to post bifurcation and block performance time was comparable and independent of BMI in both the groups

B20

**TO COMPARE THE ANALGESIC EFFICACY OF ON ARRIVAL ULTRASOUND GUIDED PERICAPSULAR NERVE GROUP BLOCK (PENG) VS FEMORAL NERVE BLOCK FOR HIP FRACTURE**

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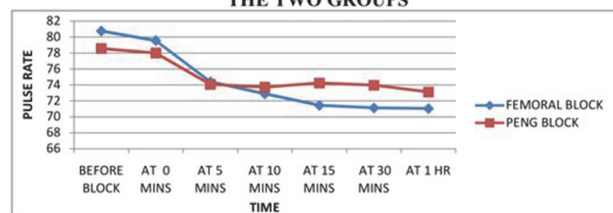
10.1136/rapm-2022-ESRA.95

**Background and Aims** The incidence of hip fracture is increased in elderly people in recent times and the pain associated with hip fracture is an important source for significant morbidity and mortality. Effective pain management immediately after hospitalization will reduce the in-hospital and long term complications following hip fractures. UGRA has become widely popular over the last decade and conventional femoral nerve block proved effective analgesia with fewer side effects. To improve the quality of analgesia PENG block was developed recently for blocking femoral, obturator and accessory obturator nerve branches supplying the hip joint. Hence we conducted the study to compare the analgesic efficacy of femoral nerve block and PENG block in hip fracture patients admitted to the hospital during preanaesthetic evaluation.

**Methods** we choose a sample size of 50 and randomly allocated in to 2 groups including ASA I, I, III and age group between 50 - 90 years. 20 ml of 0.25% Bupivacaine was used in both groups under ultrasound guidance. Primary objective was to assess VAS score at rest. Secondary objectives were to assess hemodynamic changes and VAS score on passive leg raise at 1 hour after block is being given.

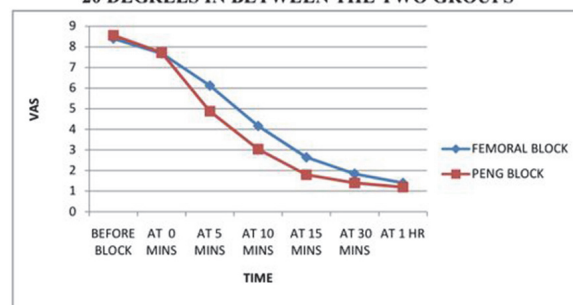
**Results** Better hemodynamics were achieved in both the groups. When compared VAS score in PENG group was better than femoral nerve group in the initial 15 to 30 minutes but at 1 hour both groups had comparable VAS scores

**COMPARISON OF PULSE RATE VARIATION BETWEEN THE TWO GROUPS**



**Abstract B20 Figure 1**

**COMPARISON OF VAS SCORE ON PASSIVE LEG RAISE TO 20 DEGREES IN BETWEEN THE TWO GROUPS**



**Abstract B20 Figure 2**

**Conclusions** Both Blocks provide hemodynamic stability by reducing the tachycardia and hypertension induced by pain and provide excellent analgesia in hip fracture patients

B21

**DEVELOPING AN ULTRASOUND-GUIDED FASCIA-ILIACA PLANE BLOCK TRAINING MODEL**

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10.1136/rapm-2022-ESRA.96

**Background and Aims** Simulation based education (SBE) promotes practice, feedback, and self-reflection in the absence of risk to patients.<sup>1</sup> When teaching regional anaesthesia, SBE has been shown to be effective, improving knowledge and skills.<sup>2,3</sup> High cost, high-fidelity training models are available, but often with limited life-spans. Evidence suggests that low cost alternatives may be appropriate for certain skills.<sup>4</sup> The project aim was to develop an effective, low-cost, sustainable, model designed for practicing an ultrasound-guided fascia-iliaca plane block.

**Methods** The model was intended to be fully recyclable and easily remade following use. It was designed to represent anatomy under ultra-sound, allowing needle and local anaesthetic spread visualisation, and provide the tactile feedback of passing through fascial planes. 10 anaesthetic novices and emergency medicine trainees attended two teaching sessions using the models. They were asked to evaluate its effectiveness immediately following the session.