ULTRASOUND-GUIDED VERSUS FLUOROSCOPIC-GUIDED LUMBAR SYMPATHETIC GANGLION BLOCK
A PROSPECTIVE SINGLE-BLIND RANDOMIZED STUDY

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Introduction:

Lumbar sympathetic ganglion blockade (LSGB), is a commonly used procedure to diagnose and treat lower limb sympathetically mediated pain. Fluoroscopic (FL) guided LSGB is an accepted standard technique, but exposes patient to radiation. Current study assesses the technical feasibility of ultrasound (US) guided LSGB in chronic lower limb pain by comparing with FL guided LSGB.

Aim of the study:

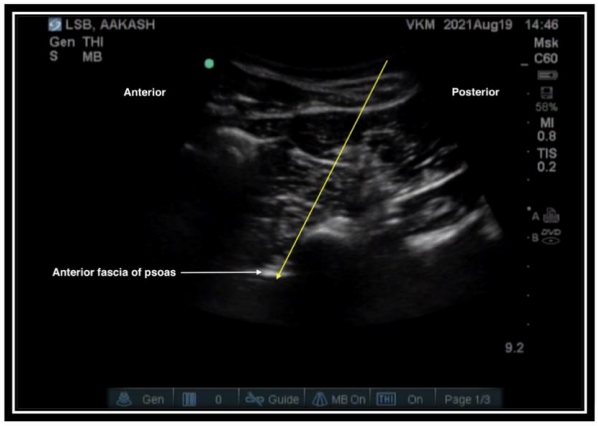
To study the feasibility of US guided LSGB by assessing the procedure time as primary Outcome and the secondary outcomes were- radiologically successful block, bone touching during procedure, post procedure numeric rating scale (NRS), procedure related complications and in room radiation exposure.

VARIABLES	GROUP FL(n-15)	GROUP US(n-15)	P VALUE
Primary outcome			
Procedure time	7min	5min	0.59
Secondary outcomes			
Final needle tip in lateral view(anterior to vertebral body)	14	12	0.598
Final needle tip in AP view(mid pedicular line)	15	11	0.1
Contrast spread along sympathetic chain	14	12	0.59
Success rate(radiological)	93.3%	73.3%	0.330
Post procedure NRS	3(3,4)	3(2,3)	0.023
Bone touching	80%	40%	0.06
Complications	0	0	-
Radiation exposure (microGy/m2)	480(453,500)	160(150,200)	<0.001

Data are presented as median and IQR or proportion as applicable .

Methods:

Thirty (30) patients were recruited and randomized into two groups as Group FL (FL guided) or Group US (US assisted). Both the group received 10-15 ml of 1% lignocaine+ 0.25% ropivacaine.



Results:

Total procedure time and radiological success rate were not statistically different between the two groups (p value 0.59 & 0.33 respectively). Post procedure NRS, bone touching during procedure were comparable in both groups. None of the patients had any complications during procedure. Radiation exposure was significantly less in group US (p value<0.001

Conclusion:

US guided LSGB is technically feasible with less radiation exposure with comparable post procedure NRS and bone touching.