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# the treatment of radicular pain in the lower cervical spine: a retrospective comparative study

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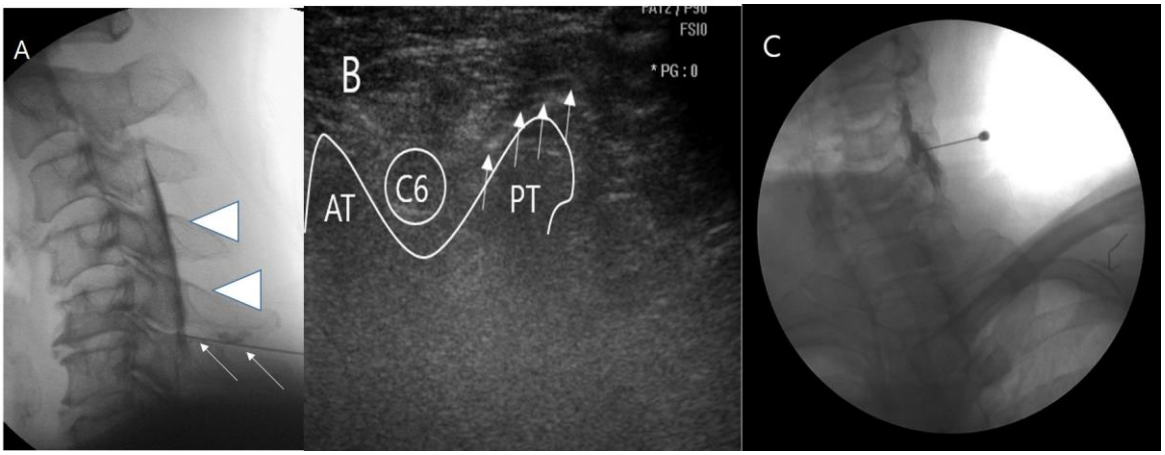
**Objective**
A retrospective study compared the mid-term effects and advantages of the ultrasound (US)-guided selective nerve root block (SNRB), fluoroscopy (FL) guided cervical interlaminar epidural steroid injection (CIESI), transforaminal epdural steroid injection (CFESI) radicular pain in the lower cervical spine through assessment of pain relief and functional improvement.

**Method**
Patients with radicular pain in the lower cervical spine who received guided SNRB (n = 44) or FL-guided CIESI (n = 41) or CFESI (n=37) were included in this retrospective study. All procedures were performed using a FL or US. The complication frequencies during the procedures, adverse event, treatment effects, functional improvement were compared at 1, 3, and 6 months after the last injection

**Results**
Both the NDI and VNS scores showed improvements at 1, 3, and 6 months after the last injection in all groups, with no significant differences between groups ($p < 0.05$). Furthermore, the treatment success rate at all time points was not significantly different between groups. Logistic regression analysis revealed that the injection method (US- or FL-guided), sex, analgesic use, pain duration, number of injection and age were not independent predictors of treatment success. blood was aspirated before injection in 7% (n=3),14%(n=6) and 0% patients in the FL-guided CIESI, CFESI and US-guided groups, respectively. In 2 patients of FL-guided CIESI and 7 of FL-guided CFESI group, intravascular contrast spread was noted during injection.

**Conclusion**
Our results suggest that, compared with FL-guided CIESI and CFESI, US-guided SNRB require a shorter administration duration while providing similar pain relief and functional improvements. Therefore, US-guided SNRB can be considered as an effective alternative for the conservative management of chronic radicular pain in the lower cervical spine. .



A: fluoroscopy (FL) guided cervical interlaminar epidural steroid injection B:Ultrasound-guided selective nerve root block C: transforaminal epdural steroid injection