

S1 nerve root block



see also [L5 nerve root block](#).

[S1 nerve root block](#) is performed for [pain](#) in the lower limbs due to [S1 nerve root](#) inflammation at the L5/S1 disc level or compression in the [lateral recess](#). Gupta et al. often note the anterior or posterior spread of contrast away from the L5/S1 disc through an anatomically appropriate needle tip placement. They frequently encounter vascular spread when performing S1 root blocks, and the reported incidence varies between 10.4% and 27.8%. There is no clear strategy published to manage these challenges. In such clinical scenarios, they propose a double needle and/or a multilevel needle technique.

A 39-year-old male presented with [radicular pain](#) in the left [S1](#) distribution which matched the magnetic resonance imaging (MRI) scan findings and thus he was listed for a left S1 root block. A 22G needle was placed at the S1 level and upon injecting the contrast, vascular spread and anterior and distal spread along the nerve root were noted and the contrast did not reach the site of the pathology, the L5/S1 disc. The contrast continued to spread anteriorly despite withdrawing the needle. A second needle was placed medial and inferior to the first needle and the contrast spread now was adequate, that is, towards the L5/S1 disc thus the injection was accomplished in a safe and satisfactory manner without needing to reschedule the procedure.

The double-needle technique can assist in overcoming problems encountered when performing an [S1 root](#) block. The alternatives could be the multilevel technique to reschedule the procedure or consider a less optimal technique such as a caudal or a lumbar interlaminar epidural. In this technical report, they highlighted various intervention options to mitigate such challenges and included a [flow diagram](#) to assist in decision-making. They have also discussed the possibility of altering the consent to accommodate the changes to the planned procedure ¹⁾.

- [Optimizing S1 nerve root block using three-dimensional computed tomography imaging: Identifying the ideal fluoroscopic angle and predicting S1 neural foramen position](#)
- [Comparative Efficacy and Safety of Fluoroscopy-guided Caudal Epidural Steroid Injection and Transforaminal Epidural Steroid Injection for Unilateral L5-S1 Paracentral Discogenic Radicular Pain](#)
- [New ultrasound-guided L5 selective nerve root block puncture approach for the treatment of pain due to high-iliac-crest lumbar disc herniation: A case report](#)
- [A Misplaced S2 Alar-Iliac Screw Causing L5 Spinal Nerve Injury: A Report of a Rare Case](#)
- [Potential S1 Nerve Root Blocks Associated with Sacroiliac Joint Injections](#)
- [A Case of Endoscopic Partial Transverse Process and Sacral Alar Resection for Bertolotti's](#)

Syndrome and Continued Basketball Playing Two Years After Surgery

- Comparative Evaluation of Caudal Epidural Method to Ultrasound-Guided S1 Transforamen Block in Patient's Lumbar Discectomy with Failed Back Syndrome Symptoms: A Double-Blind Clinical Trial
- Novel approach of ultrasound-guided lateral recess block for a patient with lateral recess stenosis: A case report

1)

Gupta S, Gupta H, Baranidharan G, Sharma M. Technical challenges of performing S1 root block: role for double needle and multilevel needle technique. Br J Pain. 2021 May;15(2):129-133. doi: 10.1177/2049463720960497. Epub 2020 Sep 24. PMID: 34055334; PMCID: PMC8138611.

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