SACRAL LATERAL BRANCH BLOCKS

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These safety practices have been developed to highlight the important elements in the safe performance of interventional pain procedures. Adherence to these practices will help decrease the risk of preventable complications. For additional information about the indications and technical aspects that yield improved treatment outcomes, refer to the *IPSIS Technical Manual and Atlas of Interventional Pain and Spine Procedures*.

/// PERSONNEL

- Only physicians trained in the technique and interpretation of sacral lateral branch blocks (SLBBs) should perform this procedure.
- Appropriately trained personnel are needed to operate the fluoroscopy unit or assist the physician.

/// CONTRAINDICATIONS

ABSOLUTE

- An active systemic infection or a localized infection within the procedural field
- Uncooperative patient or inability to obtain informed consent
- Inability to communicate pain level
- Allergy to a local anesthetic used for the block that cannot safely be omitted or mitigated by pre-treatment
- Hypertensive emergency/urgency
- Anatomical derangements that compromise the safe and successful conduct of the procedure

RELATIVE

- Pregnancy
- Asymptomatic blood pressure >180/110
- Uncorrected coagulopathy

/// ANTITHROMBOTICS AND BLEEDING DISORDERS

- The bleeding risk is classified as low for SLBBs. The general consensus is that anticoagulant and antiplatelet therapy do not need to be discontinued before these procedures.

PROCEDURAL SEDATION

- Sedation is not intrinsically necessary for SLBBs, but if employed in unique circumstances (*e.g.*, movement disorder, cases of extreme anxiety, previous vasovagal response), the patient should remain able to communicate pain or other adverse sensations or events. Deep sedation and general anesthesia are contraindicated.
- The use of sedation may alter diagnostic conclusions. The use of analgesic (*e.g.*, opioids) and anxiolytic medications will affect perceived pain and negatively alter diagnostic results.
- The decision to use sedation for an appropriate indication should be made on a case-by-case basis. Patients should be advised during informed consent that procedural sedation is not necessary but elective.
- If the physician performing the procedure decides that sedation is indicated, a separate healthcare provider must administer the medications and monitor the patient.
- Resuscitation drugs, appropriate monitoring equipment, and oxygen must be available if sedation is utilized.

SAFE, ASEPTIC PRACTICES

- Strict aseptic technique should always be applied to the facility, patient, physician, assisting personnel, injectate/syringe, and other procedural materials. Examples include, but are not limited to:
  - Skin overlying the target region should be prepared for an aseptic procedure, preferably
  - using chlorhexidine in alcohol. The area should then be draped to create a sterile field.
  - A face mask and sterile gloves must be worn during the procedure.
  - Sterile single-use syringes and needles are required, and single-dose vials should be utilized when available.
  - The acquisition, storage, and utilization of medications should adhere to relevant regulatory guidelines.

IMAGING

- Fluoroscopic guidance is the imaging technique of choice. Fluoroscopy (or CT) is critical for appropriate needle position in relation to the bony target, monitoring contrast medium flow patterns, and avoiding vulnerable vascular or neural structures.
- The fluoroscopic technique should follow the ALARA (As Low As Reasonably Achievable) principles to minimize X-ray exposure for the patient and the healthcare team.
- Contrast medium injection before local anesthetic injection is recommended to ensure proper spread and absence of vascular uptake.
- Based on true AP fluoroscopy, needle placement should be 10mm lateral to the visible dorsal foramen. A needle placed deep within the sacral foramen with injection would not only affect test specificity but also risk sacral nerve anesthesia.
- True lateral imaging should be used to verify needle depth during needle placement and before the injection of contrast medium.
- Obtain true AP/lateral fluoroscopic sacral images documenting the final needle position before contrast medium injection.

- Gadolinium-based contrast media (GBCM) should be used cautiously in interventional pain procedures and only when necessary. The clinical benefit of the interventional pain treatment should be weighed against the risk of catastrophic outcomes with intrathecal administration of even small amounts of GBCM, including acute neurotoxicity (confusion, acute agitation, reduced level of consciousness, visual and auditory hallucinations, seizures, severe spasticity), tachycardia, elevated blood pressure, vomiting, and respiratory failure. GBCM is not recommended for use in procedures where intrathecal access is possible; however, the possibility of intrathecal injection with properly performed SLBBs is exceedingly remote.
- In procedures where intrathecal access is not possible, GBCM can be utilized. However, GBCM has a lower relative radiodensity compared to iodinated contrast medium, producing a contrast flow pattern that is less apparent on fluoroscopy. Regardless, the lowest necessary volume of GBCM should be utilized.

INJECTIONS

- The ultimate choice of approach or technique should be made by the treating physician by balancing the potential risks and benefits of each technique for each patient.
- The treating physician should make the ultimate choice of injectate.

POST-PROCEDURE MONITORING/FOLLOW-UP

- Patients should be monitored for an appropriate time following the procedure, depending upon the nature of the intervention and the agents utilized.
- Provide detailed oral and written discharge instructions to patients that outline the following:
  - restrictions and recommendations for the immediate post-injection period
  - potential common side effects that may occur immediately post-injection and in the days following the procedure (*e.g.*, pain at the injection site)
  - symptoms that merit immediate medical attention
  - timing for resumption of usual medications and anticoagulants if discontinued for the procedure
- Ensure patients have a follow-up plan.

SOURCES

Maus TP, Cohen I, McCormick ZL, Schneider BJ, Smith CC, Stojanovic MP, Waring PH (Eds). *Technical Manual and Atlas of Interventional Pain and Spine Procedures.* International Pain and Spine Intervention Society; 2024.

DISCLOSURES

Waring, Patrick H:
No Financial Relationships to Disclose.

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