

**TITLE: LUMBAR SYMPATHETIC BLOCK: A NEW RAPID SINGLE NEEDLE TECHNIQUE UTILIZING RADIOGRAPHY**

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**INTRODUCTION:** Since the description of Lumbar Sympathetic Block (LSB) by Mandl in 1926 several investigators have reported various modifications. Some of the disadvantages include multiple, blind needle insertions, radiography in different views, and using fixed landmarks. We have described a single needle technique of LSB at L3 in semiprone or L4<sup>1</sup> in lateral position using radiography to guide the point of needle entry.

**METHODS:** With IRB approval and informed consent, 49 LSB's were done in 29 patients with diagnosis of Reflex Sympathetic Dystrophy of the lower extremity. 32 procedures were done with patient in lateral decubitus position. Vertebral body of L4 was identified. A radiopaque marker corresponding to anterior 1/3 of vertebral body was taped to the skin. This marks the point of the needle entry. Under sterile technique a 22G spinal needle was inserted perpendicular to the table until bone was contacted. The position of the needle tip was confirmed by fluoroscopy to be at the anterior 1/3 of the body. After aspiration 10-15 cc of .25% Marcaine was injected. 17 procedures were done with patient in semi prone position, body of L3 was identified and the radiopaque marker corresponding to anterior border of the vertebral body was placed on the skin.

A 22G spinal needle is inserted perpendicular to the table until bone is contacted, then 10-15 ml. of .25% Marcaine is injected after aspiration. Temperature changes are recorded by means of skin electrodes placed on both feet. CT scan was performed at the needle level in 6 patients.

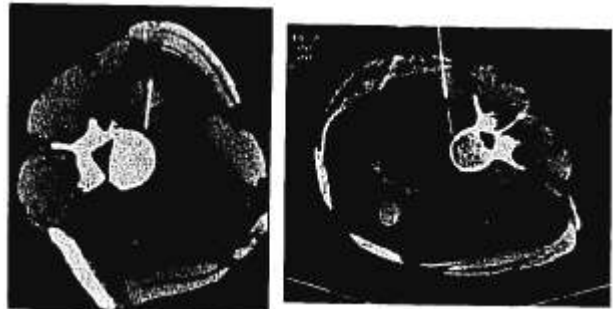
**RESULTS:** 30/32 patients in the lateral position ( $15.6 \pm 7.0^\circ \text{F}$ ) and 15/17 in the semiprone position ( $14.6 \pm 5.9^\circ \text{F}$ ) had significant temperature increase. No complications were noted. The needle did not penetrate major organs as shown on CT scan below.

**CONCLUSION:** The single needle technique we described reduces multiple needle insertions, avoids parasthesias, solid organ damage,<sup>2</sup> minimizes patient discomfort and requires very little expertise.

**REFERENCES:** 1. Anes. & Analg. 1975; Vol 54: 725-729  
 2. B-J-Anes. 1982; Vol 54: 1037-1039

Lateral at L4

Semiprone at L3

**A858****TITLE: INTERMITTENT SINGLE SHOT INTERPLEURAL ANALGESIA AS AN ADJUNCT TO NARCOTIC THERAPY FOR CHRONIC PANCREATITIS**

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It is known that interpleural blocks with bupivacaine have provided substantial relief in patients with acute pain<sup>1</sup>. This is a retrospective case report of patients with chronic pancreatitis, treated with intermittent injections of interpleural bupivacaine (IPB) to determine the efficacy of this regime and to compare it to traditional narcotic therapy and celiac plexus block (CPB).

The study group consisted of 7 patients. On each visit, the visual analogue scale was used to assess the patient's pain. Therapy consisted of continuing or adjusting oral medication, counseling, and/or after obtaining written consent, an IPB or bilateral CPB was performed. Post-block pain scores were obtained, and the patient educated regarding delayed adverse signs, symptoms and appropriate actions to be taken, then discharged to home after 45 minutes of monitoring NIBP and EKG. CPB utilized a total of 40cc 0.25% bupivacaine. IPB was performed on the ipsilateral side of the most pain at the 7th or 8th rib using a 17g Tuohy needle with glass syringe advanced until negative inspiratory pressure identified the interpleural space. 20cc of 0.25% bupivacaine was injected

through the needle only.

A total of 32 IPB and 3 CPB were performed, one patient having received 13 IP blocks. Pain scores had been reduced to 0 in 25 cases. Mean decreases in scores ( $\pm \text{S.E.M.}$ ) after IPB were 6.16 ( $\pm .92$ ) and for CPB were 5.33 ( $\pm 1.78$ ). During the initial visits, usually when the patient was hospitalized for acute exacerbation of chronic pancreatitis, pain relief from IPB or CPB blocks lasted only hours. Most patients required methadone 10-20 mg p.o. b.i.d. During and after resolution of the attack, patients reported an average of 14-21 days with pain scores 0-3, gradually increasing to the original scores of 7-9, when a repeat injection was usually requested.

Compared to CPB, we found that IPB has the following advantages: it takes 10 minutes to perform, is less invasive, less organ systems would be jeopardized by faulty technique, special equipment would not be necessary, and complications such as pneumothorax and hypotension would be evident within minutes. The effect is immediate, and patients report minimal discomfort during and after the block. The superior analgesic effect made methadone a better alternative to acetaminophen with codeine. It may be performed repeatedly, but must be used in conjunction with chronic oral narcotic therapy, abstinence from alcohol, counseling and compliance. Based on our experience, IPB with bupivacaine proved to be more advantageous in most of our patients.

**Reference:**

1. Anesthesiology 67:798-800, 1987.