**RFA of Lumbar Medial Branches**

OPERATIVE PROCEDURE

PREOPERATIVE DIAGNOSIS:----

POSTOPERATIVE DIAGNOSIS: ----

PROCEDURES:----

1.----

2. Epidurography with radiographic interpretation of cervical epidural steroid injection.

ASSISTANT: ----

COMPLICATIONS: ----

SPECIMEN: ----

ESTIMATED BLOOD LOSS: ---

PREOPERATIVE PAIN LEVEL:----

POSTOPERATIVE PAIN LEVEL:---

RATIONALE :-----

 The patient already had medial branch blocks, and has good relief with pain for the duration of anesthesia, involving the lower lumbar spine. The patient also had intra-articular facet block, good amount of pain relief. The patient has radiological and clinical symptoms, suggestive of facet joint arthritis. We decided to go ahead and give him a little sustained pain relief with radiofrequency ablation.

PREOPERATIVE AREA: ----

All the risks of injections were discussed with the patient in the preop area. The patient was given opportunity to ask questions regarding the procedure, its indications and the associated risks. The risk of the procedure discussed include infection, bleeding, allergic reaction, Dural puncture, headache, nerve injuries, spinal cord injury, and cardiovascular and CNS side effects with possible of vascular entry of medications. The temporary nature of the pain relief was also explained to the patient. The alternative options of conservative care were also discussed with the patient. I also informed the patient of potential side effects or reactions to the medications potentially used during the procedure including sedatives, narcotics, nonionic contrast agents, anesthetics, and corticosteroids.

The patient was also explained there is a 50% chance of pain relief in 50% of the individuals, which sustains for 6 months to a year. The patient understood, verbalized agreement for the current plan, wants to go ahead with the sustained pain relief. Other alternative options for radiofrequency ablation, which involves continued conservative care with and without doing injections, and also possible surgeries were discussed with the patient, and the patient wanted to go ahead and opt for radiofrequency ablation, the patient was informed both verbally and in writing. Patient completely understood and consented for the procedure understanding the risks and the benefits. Patient was also appropriately marked for the planned procedure after obtaining full informed consent. Patient was then transferred to the operating area.

OPERATIVE PROCEDURE: The patient was taken to the operating suite he/she was identified by the head nurse and was placed in prone position on a radiolucent table. Patient’s all bony prominences were padded. Patient is relevant studies were put on display his/ her vitals were being monitored, he/she was administered conscious sedation. Oxygen saturation and vital signs were monitored continuously throughout the procedure. Patient was administered conscious sedation by anesthesia department. The patient had high anxiety and remained awake during the key parts of the procedure to interact and give feedback. Patient was in correct position with fluoroscopy on the right side. The patient’s Lumbar spine was prepped and draped in the normal sterile fashion. Surgical time out was then performed to confirm the patient's identification, diagnosis, planned procedure and allergies. Surgical site was also properly marked for the planned procedure.

 We were able to bring in the C-arm and nicely visualize the lumbar disc interspace in AP view. We initially started on the left side the c - arm was manipulated to nicely obtain an oblique laminar view to see the junction of the superior articular facet and the transverse process. Local anesthetic was given by raising a skin wheal at the skin entry point. With fluoroscopy, a 20 gauge 10-mm bent Teflon coated needle was gently guided into the groove between the SAP and the transvers process avoiding the mammillary accessory ligament at L3, L4 and L5 vertebrae for the L2 L3 and L4 medial branches . The groove between the sacral ala and the superior articular process of S1 vertebrae was targeted for the L5 dorsal rami. An entry point was taken after local anesthesia in the skin and a similar needle was driven to the location under intermittent fluoroscopy. Sensory stimulation using 0.5 - 1 volts was used at each level which created pain. The following technique was used to confirm correct placement. Motor stimulation was applied at 3 Hz with 1 millisecond duration. No extremity movement was noted at less than 3 volts.

MEDICATIONS INJECTED: Before the ablation, 1 mL of 1% lidocaine was injected at each level. After the ablation, 1.5 cc of mix of 0.5 mL of Depomedrol. 0.5 cc of 1% lidocaine and 0.5 cc 0f 0.25% Marcaine. was injected at the ablation site as the needles were removed.

The levels were determined under fluoroscopy. 1 mL of 1% lidocaine was then injected slowly at each level. After waiting 30-60 seconds, ablation was performed utilizing a radiofrequency generator at 80 degrees C for 90 seconds. Then, I was able to rotate all the needles in a 180-degree fashion, check this with the help of C-arm. They were appropriately placed in both AP and lateral view, and then kind of put the area through the same cycle one more time. After that, I was able to go ahead and remove the needle, and after that I was able to go ahead and inject into each needle around 1.5 cc of the premixed solution, which was a mix of 0.5 cc of 1% lidocaine, 0.5 cc of 0.25% Marcaine, and 0.5 cc of Depo-Medrol at each level. I was then able to remove the needle, dress the wound with Band-Aid. The patient tolerated the procedure really well. His pain after the surgery was 0. He was neurologically intact. After the ablation, the above injectate was given at each level. The procedure was completed without complications and was tolerated well. Similar procedure was then carried out on the right side. There was appropriate placement of the needle and no stimulation of the ventral ramus. Dye was injected before carrying on the procedure to make sure the needles are placed at the right locations. There was good impedance at all the location.

 The patient was monitored after the procedure. Post-procedure vital signs and oximetry were stable. The patient was discharged with instructions to ice the injection site as needed for 15-20 minutes as frequently as twice per hour for the next day and to avoid aggressive activities for 1 day. The patient was told to resume all medications. The patient was told to be in relative rest for 1 day but then could resume all normal activities. The patient was given post-procedure and discharge instructions to follow at home. The patient was discharged in stable condition. A follow-up appointment was made.

The patient was instructed to seek immediate medical attention for shortness of breath, chest pain, fever, chills, increased pain, weakness, sensory or motor changes, or changes in bowel or bladder function. And to contact spine clinic number in case of any concern's questions or complaints