Dorsal Column Stimulator Implantation

Operation Date

Preprocedural Dx- chronic axial back pain and failed back syndrome

Postprocedural Dx- chronic axial back pain and failed back syndrome

Name of Procedure:

1. Spinal Cord Stimulator and Pulse Generator Implantation
2. Hemilaminotomy of T9 vertebrae
3. Use of a click anchors to anchor the leads
4. Increased difficulty due to BMI Of the patient above 35

Anesthesia: General Anesthesia

Estimated Blood Loss: Minimal 50 cc

Assistant: Jennifer

Implants used- Boston Scientific

Complications: None

**Preoperative area.**

Patient was seen and reassess in the preop area. The risks, benefits, and options were discussed thoroughly with the patient. The patient’s questions were answered. The patient appeared to understand and chose to proceed. Informed consent was obtained. Today’s permanent implant followed a successful trial of spinal cord stimulation (SCS) and is therefore the second part of a staged procedure. The site for the implantable pulse generator was marked on the patient in the preoperative area. Patient was more symptomatic on the right side. Her best pain relief was obtained by stimulation at the T8 upper border.

**Procedure**

Patient was then transferred to the OR where she was identified by the head nurse and anesthetist and here particulars were reconfirmed. All the relevant studies were put on display. She was administered general anesthesia. All the lines were hooked up, she was also catheterized. She swathe patient was given an IV prophylactic antibiotic of cefazolin 2 Gms and infused slowly over 30 minutes prior to the procedure.

The patient was the positioned prone over the Jackson table. The anesthesia care provider throughout the procedure provided cardiopulmonary monitoring and general anesthesia. The patient’s vital signs were noted to be stable during the procedure. The patient’s **thoracolumbar sine** was prepped with Betadine and Chlorhexidine and then draped in the usual sterile fashion.

An anteroposterior fluoroscopic view was obtained to identify and mark the midline position of the **T9** spinous processes

A Time out was then performed the patients particulars her site side her allergies and diagnosis, we also confirmed that she has received the antibiotics.

. A midline approach was taken to the T9 and T10 interspace on the left. Skin was incised and the fascia was reached by use of both blunt dissection and monopolar cautery. The fascia was incised in the midline and the muscles were elated on the left side only. After subperiosteally elevation of the limited muscle covering the area we were able to insert a retractor so as to give access to the interlaminar space. Once the positon was confirmed with a c arm a burr was use to burr down the inferior half of the lamina at the T9 level on the left and to the midline. After its removal we a kerrison was used to cut it so as to obtain access to the epidural space. Woodson elevator was used to complete the laminotomy and have access to the epidural space by bluntly dissecting the ligamentum flavum from the lamina of T9. After it was adequately freed. The curved lead template was passed. It was freely moving in the epidural space. It was then removed and the paddle lead was then inserted and positon so as to span the T8 vertebrae and T7 vertebrae. Once the positions was confirmed on the C arm. The clink anchor was passed through the first and the fourth lead so as to anchor them to the supraspinous ligament and the thoracolumbar fascia.

The attention was then diverted to the left buttock area.

The pocket site for the neurostimulator pulse generator was previously identified and marked in left buttock area below the belt.

Using a No. 15 scalpel, a 4-cm incision was created. A subcutaneous pocket at a depth of approximately

1 to 2 cm was created using blunt dissection.

Using the tunneling tool, tunneling was successfully completed between the midline at the exit site of the lead and the pocket. The lead was then passed through the tunneling tool to the pocket. The lead(s) were then securely placed into the pulse generator and tested. Following successful testing the leads were secured into the pulse generator by tightening the set screws. The pulse generator was then placed into the pocket with the non-insulated lettered side of the unit facing out toward the skin.

At this point, the system was again tested with the pulse generator placed into the subcutaneous pocket. Once the system’s function was verified, both the incision sites were irrigated with

Bacitracin and closed with 3-0 absorbable multifilament suture.

Subcutaneous suturing was accomplished with 5-0 absorbable suture and cyanoacrylate skin adhesive,

. The wound was then bandaged with sterile gauze and taped down in a sterile fashion.

The patient was then brought to the recovery room, where the unit was again tested and activated.

**Disposition**

The patient was instructed not to reach overhead or perform any abrupt movements with the back, neck, or arms. The patient has been scheduled to return to the clinic for follow-up and wound check in approximately 5 days. The patient is to contact the prairie spine number at any time if there are any complications including, but not limit to, bleeding or signs of infection. There were **no complications**.

The patient **tolerated** the procedure well and was discharged **after** meeting discharge criteria. At the point of discharge, analgesics were prescribed for home.