

Spinal Cord Stimulation (SCS) for Neuropathic Pain- Practical Experience of Taipei VGH

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Purpose

Spinal cord stimulation (SCS) is a well-accepted therapy to treat a variety of chronic neuropathic pain condition. To avoid the disadvantages of using percutaneous lead for trial and enhance surgical outcomes, we modified the surgical procedures by using a quadripolar surgical lead for trial under local anesthesia, and implanting the permanent system by preserving the trial surgical lead without changing the position.

Materials and Methods

From JUL.2006 to JUL2007, a total of six patients suffering from lower limbs neuropathic pain underwent SCS therapy at Taipei Veterans General Hospital. All six patients had experienced pain that was unresponsive to conventional treatment modalities for at least 6 months, and were not considered to be candidate for further spine surgery. Three patients suffered from lower legs pain after cauda equine injury, two patients from radicular pain after FBSS, and one patient from radicular pain after complication of vertebroplasty. All six patients received our modified SCS surgical procedure- placing a surgical epidural lead for trial and implanting permanent system within one week trial period.

Results

During the trial period, all six patients had satisfactory paresthesia coverage (>80%) and pain relief (>50%). After permanent system implanted, all six patients still reported at least a 50% reduction in pain score of visual analog scale (VAS). Moreover, the image studies showed that no lead migration was found before and after permanent system implanted in all six patients. One patient could not feel the paresthesia two months later and underwent another surgery for securing the lead to the dura.

Conclusions

As SCS has become an accepted procedure for the treatment of neuropathic pain, it is important to devise ways to avoid any complication or low patient satisfaction associated with the procedure. Our modified surgical procedure, placing a quadripolar surgical lead for trial under local anesthesia, resulted in good paresthesia coverage and clinical outcomes.