Treatment of Low Anterior Resection Syndrome with Sacral Nerve Stimulation

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INTRODUCTION

Rectal cancer remains highly prevalent in the United States, with a projected 43,340 new diagnoses this year.[1] With increased use of neoadjuvant therapy and the increased use of minimally invasive techniques, more patients undergo sphincter preservation surgery for treatment of rectal cancer.[2] Patients who undergo a low anterior resection for the treatment of rectal cancer are at a risk of developing low anterior resection syndrome (LARS), which some studies estimate to occur in up to 80% of patients.[3] Symptoms of LARS include fecal urgency and incontinence, but also constipation and difficulty with evacuation.[3] A few small studies in Europe have demonstrated promise for the use of sacral nerve stimulation (SNS) for the treatment of fecal incontinence in LARS, but there are nearly no similar studies in the United States.[4] Here we describe a case of near complete resolution of LARS with implantation of a SNS.

CASE REPORT

A 58-year-old man underwent low anterior resection for stage III-A rectal adenocarcinoma and subsequent loop ileostomy reversal following adjuvant chemotherapy and radiation. Within one month following ileostomy reversal the patient presented to our clinic with alternating symptoms of fecal urgency, constipation, and sensation of incomplete evacuation, consistent with LARS. These symptoms had a significant impact on the quality of the patient's life and limited his ability to work. Non-operative therapy was initiated with fiber supplementation and antidiarrheals, and a course of pelvic floor physical therapy. One year after ileostomy reversal, the patient reported minimal improvement of his symptoms.

IMAGING

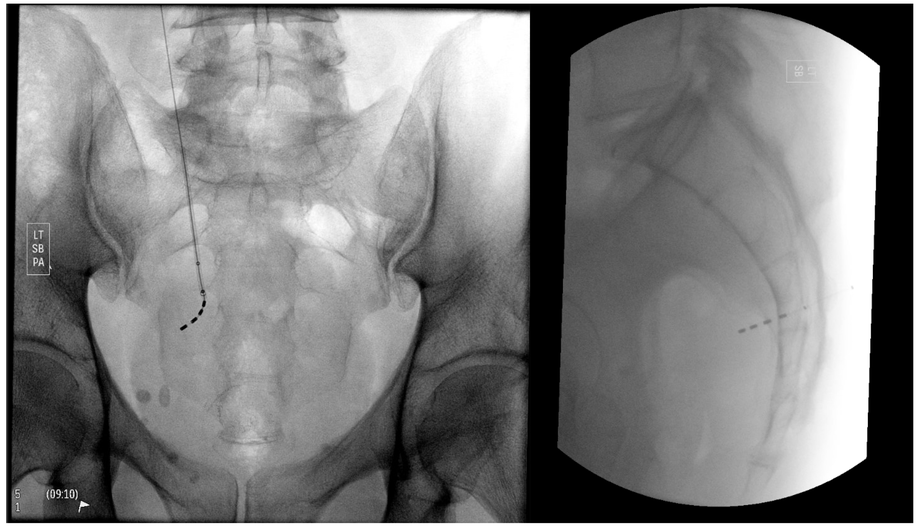


Figure 1. Sacral Nerve Stimulator Placement Under Fluoroscopic Guidance

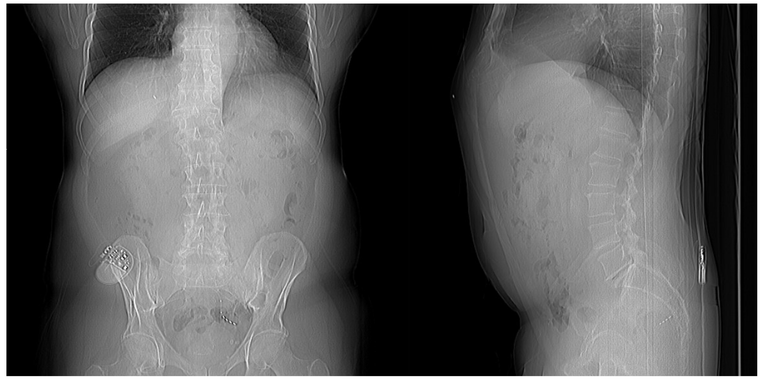


Figure 2. Sacral Nerve Stimulator Post-Placement

CASE REPORT (CONT.)

He then underwent operative two-stage placement of SNS. At four-month follow-up, patient noted significant improvement in fecal urgency and frequency, but stated some continued symptoms of constipation and tenesmus. With improved management of his LARS symptoms following SNS placement, the patient has been able to return to full-time work, sleep through the night, and improve his overall quality of life. A year post-placement, the patient reports improved ability to differentiate between gas and stool, and improved management of LARS symptoms.

DISCUSSION

Incidence and prevalence of LARS will continue to increase secondary to increasing use of minimally invasive techniques and more efficacious chemotherapeutic regimens for the treatment of rectal cancer.

As we focus on cancer survivorship, SNS placement should be considered as a treatment for LARS.

Larger scale and long-term studies need to be performed to longitudinally assess LARS symptom management with SNS.

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