Microlaparoscopic Conscious Pain Mapping in the Evaluation of Chronic Pelvic Pain: A Case Report

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ABSTRACT

Chronic pelvic pain is a debilitating, life-altering syndrome that negatively affects a woman's quality of life and personal relationships. Many women continue to suffer with pelvic pain despite having undergone multiple medical and surgical treatments. Unfortunately, some women are incorrectly labeled as having psychological illness when organic disease may be present. I report a case of a woman who underwent multiple pelvic and abdominal surgeries before the cause of her pain was identified through microlaparoscopic conscious pain mapping.

Key Words: Microlaparoscopy, Conscious pain mapping, Multiple previous surgeries, Chronic pelvic pain.

CASE REPORT

A 44-year-old, para 2, female with chronic pelvic pain was admitted for microlaparoscopic conscious pain mapping to evaluate the cause of her pain. The patient had undergone a cesarean hysterectomy in 1979 during her last delivery secondary to having multiple large leiomyomata. Over the next decade, she suffered from chronic right-sided pelvic pain that was unrelieved with conservative medical therapy including hormonal therapy, nonsteroidal anti-inflammatory drugs, and narcotic medications. Gastrointestinal and urinary tract evaluations were normal. A laparotomy with bilateral salpingo-oophorectomy and appendectomy were performed, which revealed endometriosis. After this surgery, her symptoms did not ameliorate. Over the next 12 years, the patient underwent 14 laparoscopic surgeries at various centers with minimal to no improvement. Although many of the operative reports describe fulguration of endometriosis and lysis of adhesions, others reported normal findings.

After an extensive history and physical examination were obtained and a review of the available medical records and videotape of her most recent laparoscopy was conducted, she was offered the option of undergoing microlaparoscopic conscious pain mapping. The patient and her husband were counseled and surgery scheduled. Prior to surgery, the patient was familiarized with the conscious pain mapping procedure and pain scoring system. She was asked to rate her pain on a scale of 0, no pain, to 4, severe pain.

The procedure was conducted in the outpatient surgery center of a private community hospital. With the patient in the supine position, she was prepared and draped, and a Foley catheter was inserted. Conscious sedation was administered intravenously (atropine 0.2 mg, ondansetron hydrochloride 4 mg, midazolam hydrochloride 1 mg, and fentanyl citrate 350 µg given slowly and titrated at 50 µg increments to effect) was administered intravenously. Periumbilical and suprapubic blocks were administered at operative sites of 10 mL of 1% lidocaine with epinephrine 1:100,000 buffered with sodium bicarbonate (10:1 dilution). A pneumoperitoneum was created with carbon dioxide using the Insuflow® device (Georgia BioMedical Inc., Macon, GA) after inserting a Veress needle and 2-mm cannula. After...
advancing a 2-mm microlaparoscope (MiniSite, US Surgical Corp., Norwalk, CT) into the peritoneal cavity, a second 2-mm cannula was placed in the suprapubic region and a 2-mm manipulating probe directed into the pelvic cavity. Diagnostic microlaparoscopy and conscious pain mapping were performed by systematic probing of the pelvic cavity and obtaining intraoperative patient feedback regarding the presence or absence of pain.

Inspection of the pelvis confirmed a previous hysterectomy, bilateral salpingo-oophorectomy and appendectomy. No evidence was present of an ovarian remnant. The posterior cul-de-sac had a few small “powder-burn” endometriosis lesions that produced a minimal pain score of 1 (out of 4). However, the patient had old sutures with granulation tissue (Figure 1) over the right pelvic brim with a pain mapping score of 4 (Figure 2). This exquisitely painful area was probed a second time to authenticate its role as the pain focus. Fulguration of the site was performed with 2-mm monopolar cautery scissors at a power setting of 40 W spray coagulation (Figure 3). After electrosurgery, the patient rated her pain score significantly lower at 1. This assessment was repeated and remained a score of 1. She tolerated both the diagnostic and operative components of her surgery under local anesthesia with conscious sedation. At the scheduled 2-week and 6-month postoperative visits, she reported being completely pain-free without the use of analgesics. She returned to work 1 week postoperation without limitations.

DISCUSSION

Chronic pelvic pain accounts for approximately 10% to 15% of a woman's visits to the gynecologist, up to 50% of diagnostic laparoscopies, and many hysterectomies
each year. Interestingly, a variable percentage of patients have no pathologic findings with the traditional laparoscopic approach under general anesthesia. Physical examination sometimes provides confusing and minimally useful data for evaluating chronic pelvic pain. In a large study of 1194 patients with chronic pelvic pain, normal pelvic examinations were found in 749 patients. Not surprisingly, in 479 patients with chronic pelvic pain and a normal examination, 63% had abnormal findings during diagnostic laparoscopy. However, 17.5% of the study patients with an abnormal pelvic examination had a normal diagnostic laparoscopy. It is for this latter subgroup of patients that conscious pain mapping may provide more clinical information than with traditional laparoscopy under general anesthesia.

The current patient developed chronic pelvic pain after a cesarean hysterectomy for benign disease. She subsequently underwent a bilateral salpingo-oophorectomy and appendectomy without symptom relief. Over a period of 12 years, she underwent 14 laparoscopies, all performed under general anesthesia. Although some of these operative reports describe the presence of endometriosis, adhesions, or both of these, none addressed the sutures in the right pelvic brim. Further confusing the patient’s clinical picture is the fact that no consistent relationship existed between the severity of endometriosis and pelvic pain. The “burned out” endometriosis lesions seen during conscious pain mapping produced a low pain score of 1. These variable pain scores for endometriosis lesions have been previously described. Once electrosurgery to fulgurate the lesion over the right pelvic brim was performed, the patient’s pain score dropped from a severe 4 (out of 4) to an insignificant score of 1.

CONCLUSION

It is critical to perform conscious pain mapping in patients with chronic pelvic pain who have undergone unsuccessful surgical attempts to resolve their pain. These minimally invasive procedures can be preformed using microlaparoscopy without general anesthesia.

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