

CORRESPONDENCE

Anesthesiology
79:865, 1993
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J. B. Lippincott Company, Philadelphia

Sympathetically Maintained Pain May Be Rekindled by Surgery under General Anesthesia

To the Editor:—Recently, we had two patients who have had recurrence of their sympathetically maintained pain (SMP) following surgery under general anesthesia.

The first patient was a 35-yr-old woman who had injured her right knee in 1982, and pain developed characterized as an ache in her hip and a cramp-like pain in her thigh, which she described as a "gripping sensation in the upper thigh and a knot just above the knee." The pain became worse in a cold environment. Pain was relieved during 4 days of continuous lumbar sympathetic block *via* paravertebral catheter using 0.25% bupivacaine and was thereafter controlled by repeated regional intravenous guanethidine.¹ She became pregnant and had no pain during the pregnancy. However, during labor, pain in her right leg occurred just before and during each contraction, and the original leg pain returned shortly after delivery. In February 1989, we administered a radiofrequency lumbar sympatholysis, which relieved this pain. She continued pain-free even though she had a subsequent bone biopsy under epidural anesthesia. She had a short-lived, self-resolving recurrence of minimal right leg pain following a caesarean section for a second pregnancy under epidural anesthesia. On March 3, 1992, because of a family history of ovarian cancer, the patient opted to have a vaginal hysterectomy with a bilateral salpingo-oophorectomy under general anesthesia. This time, the pain in her right leg returned with the original intensity, at the original location, and with the same characteristics. We treated this patient for her leg pain with a lumbar sympathetic block and obtained a period of transient pain relief. Intravenously administered phentolamine confirmed she had SMP. Radiofrequency sympatholysis has subsequently controlled the pain.

The second patient was a 48-yr-old woman who injured her right ankle in January 1984, and SMP developed for which she received only temporary relief with sympathetic nerve blocks. In September 1988, we performed a radiofrequency sympatholysis on the right side. She remained pain-free for 1 yr, until she was involved in a motor vehicle accident, after which she developed pain in both feet. Again, a radiofrequency sympatholysis (bilateral) restored her to a pain-free condition until she had surgery under general anesthesia for a Marshall-Marchetti procedure for stress incontinence. As she was recovering from anesthesia, the pain in her right leg returned. At first she thought she was "dreaming" or having a "nightmare."

However, when she became fully conscious, she realized that the pain had returned. Presently, it is being controlled with sympathetic blocks.

The pain literature suggests that previous pain experience can so condition the nervous system that the pain of a second injury can be felt at the original site rather than the newly injured site. This phenomenon has been called habit reference, concerning which Ruch and Patton commented, "The term habit reference implies that a projection of pain is learned and that the pain impulses conducted in an overlapping pathway were simply given the previously learned reference for impulses in that path."² A second possibly relevant observation is that of Leatherdale, who noted that spinal anesthesia transiently "released" a dormant phantom limb pain,³ which suggests that previously painful experience is remembered centrally.

It would appear that, in these two patients, SMP was rekindled by surgery. Thus, it behooves anesthesiologists to be aware of this possibility and to consider the indication from the first case that the rekindling did not appear following surgery under a regional technique.

Angelo G. Rocco, M.D.
Associate Professor of Anesthesia
Harvard Medical School
Current address:
One Sleepy Hollow
Exeter, New Hampshire 03833

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(Accepted for publication July 9, 1993.)