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Managing phantom pain with drugs

HERE'S HOW YOU CAN MANAGE AND PREVENT PAIN THAT EXISTS IN A LIMB THAT DOESN'T.

BY SHELLY J. REED, RN, NP, MSN

Robert Martinez, 56, underwent a right, above-knee amputation 2 years ago, a result of diabetic complications. He's being admitted because of significant phantom pain unrelieved by pharmacologic and non-pharmacologic treatment. During his initial assessment, he tells you he has sharp, burning pain that seems to originate in his absent limb.

Mr. Martinez isn't alone. More than 70% of amputees suffer from stump and phantom limb pain years after amputation. In 5% to 10% of these patients, the pain is severe and resistant to conventional therapies. In this article, I'll explain how you can help patients like Mr. Martinez manage their pain and I'll describe preemptive treatments that can help prevent phantom limb pain.

MANAGING THE PAIN

Mr. Martinez rates his pain as an 8 on a scale of 0 (no pain) to 10 (worst imaginable pain). To control the pain, he's been taking long-acting oral morphine twice daily as well as two oxycodone/acetaminophen combination pills every 4 hours. Mr. Martinez says this regimen only takes the edge off of his pain.

The physician inspects and palpates the stump, looking for bursitis or neuromas that may respond to local anesthesia or steroid injection. Because the stump appears normal, the physician refers him to the chronic-pain consultant. The consultant takes a thorough medical history, including mental status, and assesses the pain's quality and location. ■

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The consultant starts Mr. Martinez on a trial of the antidepressant amitriptyline, 25 mg at bedtime, increasing the dose by 25 mg every 3 days until he's taking 150 mg. Used in low doses, some antidepressant medications are effective for treating pain. Mr. Martinez continues taking the long-acting oral morphine.

You monitor for adverse reactions, including dry mouth, drowsiness, urine retention, constipation, and orthostatic hypotension. At the full dosage, Mr. Martinez complains of an excessively dry mouth and a hungover feeling in the morning. The pain consultant reduces the dosage to 100 mg at bedtime and the adverse reactions subside.

Three weeks after taking the amitriptyline, Mr. Martinez rates his pain as a 3 on a scale of 0 to 10. He no longer uses the long-acting oral morphine and needs only four to five oxycodone/acetaminophen combination pills per day for breakthrough pain. As part of his discharge planning, you schedule his follow-up visits to the chronic-pain clinic.

TAMING THE PHANTOM BEAST

Eliminating phantom limb pain with drugs depends on the location, type, and severity of the pain, plus the patient's response to pain and his tolerance of adverse

reactions. Because no single mechanism fully explains the cause of phantom limb pain, the pharmacologic treatment varies.

In the face of severe, unrelieved pain, many patients will try multiple medications. (See *Looking for Pharmacologic Solutions*.) Pain relief improves with early and aggressive therapy. When the pain has persisted for a long time, the patient may need behavioral and physical therapy and may opt for some type of alternative treatment.

Surgical procedures such as sympathectomy, rhizotomy, cortical ablations, and dorsal column stimulation offer some relief. Some physicians may order transcutaneous electrical nerve stimulation (TENS) units for patients with phantom limb pain, although research concludes that a year after therapy, patients using TENS units have similar pain ratings to those who didn't use the therapy. Other possibly helpful nonpharmacologic treatments include acupuncture and therapeutic touch.

HEADING OFF THE PAIN

Margaret Warner, 60, suffers from peripheral vascular disease (PVD). She'll undergo surgery to remove her ischemic left foot in 2 days. Mrs. Warner rates her pain as a 3 on a scale of 0 to 10. She describes her pain as aching and sore and in her left toes; she tells you that two or three oxycodone/acetaminophen combination tablets a day keep the pain under control. Because of her PVD, you're concerned about postoperative phantom limb pain. (See *Existing Conditions That Affect Phantom Pain*.)

Before surgery, the anesthesiologist decides to place an epidural catheter for preemptive analgesia. He administers an opioid-bupivacaine infusion through the epidural catheter, explaining that undergoing an epidural infusion for at least 18 hours before the surgery might reduce postopera-

LOOKING FOR PHARMACOLOGIC SOLUTIONS

Narcotic and nonnarcotic analgesics are known to be effective in treating phantom limb pain. Some tricyclic antidepressants (TCAs) and anticonvulsants are effective, although the mechanism of action is unknown.

Drug and indications	Nursing considerations
Analgesics for mild to moderate pain	If patient is taking acetaminophen, monitor for hepatotoxicity. If patient is taking NSAIDs, monitor for gastric problems, bleeding difficulties, and impaired kidney function.
Narcotic analgesics for moderate to severe pain	Monitor for respiratory depression, nausea, constipation, urine retention, and itching.
Tricyclic antidepressants (amitriptyline, desipramine, doxepin, imipramine) for burning, sharp, shooting, biting, tingling, or throbbing pain	Monitor for dry mouth, orthostatic hypotension, drowsiness, urine retention, and constipation. Because some TCAs can cause cardiac rhythm disturbances, the patient may need a baseline ECG and cardiac monitoring.
Anticonvulsants (carbamazepine, gabapentin, phenytoin) for shooting or shocking pain	Because of the potential for blood dyscrasias and toxic serum levels with carbamazepine and phenytoin, monitor baseline blood counts and take periodic blood counts and serum drug levels.

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EXISTING CONDITIONS THAT AFFECT PHANTOM PAIN

The following preamputation conditions can increase phantom limb pain and possibly delay rehabilitation:

- blood clots resulting in amputation
- gangrene and infection
- weakness
- anxiety
- personal sensitivity to pain
- preamputation pain
- white race
- male sex

tive phantom limb pain. You monitor Mrs. Warner's level of anesthesia and blood pressure. Within an hour, she rates her pain as a 0 and tells you this is the most comfortable she's been for a long time. On day three, the physician discontinues the epidural and prescribes oral oxycodone, as needed, which keeps her pain rating at 3 or less.

PREEMPTIVE ANALGESIA: YEA OR MAY?

Conflicting opinions exist on using preemptive analgesia for preventing phantom limb pain. Most specialists believe that an epidural infusion of a local anesthetic for 1 to 3 days before surgery can help reduce phantom limb pain for 1 year after surgery. However, a recent randomized study suggests that 72% of patients may experience phantom limb pain to some degree at the 1-year postoperative mark after having an epidural. Because most prior studies demonstrate improved control of phantom limb pain postoperatively, most physicians continue to prescribe preemptive analgesia.

REASSURING YOUR PATIENT

When assessing patients before or after limb amputation, make sure you ask about the pain even if the limb no longer exists. Assuring your patients that phantom limb pain is normal and can be treated will ease their anxiety. **U**

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