Ketoprofen 10% in Pluronic Lecithin Organogel for Heel Pain

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VH is a 74-year-old white woman who is undergoing treatment for soreness in her right heel. The results of a physical examination performed by her physician in December 2002 indicated that her overall health is remarkably good with the exception of the heel discomfort and slightly elevated blood pressure. Her medical history indicated infrequent treatment with antibiotics, and at the time of this writing she is very active.

VH noticed the onset of heel pain for almost a year before she was evaluated by her physician. She did not recall injuring that heel, she does not walk barefoot, and she wears San Antonio Shoes (SAS) brand comfort shoes. Family obligations (she is the caregiver for her disabled husband and daughter) required her standing and walking more than usual during the 6 months before she was examined by her physician, at which time she rated her level of pain during standing as 4 on a 10-point scale and during sitting as 2. Occasional treatment with either acetaminophen (Tylenol) or a combination medication (BC Original Formula) consisting of aspirin 650 mg,
pain from entrapment neuropathies or neuritis (both of which involve irritation of peripheral nerves that are close to the skin), carpal tunnel syndrome, arthritis, reflex sympathetic dystrophy, and myofascial pain syndrome. I also prescribe sumatriptan in a troche for the treatment of migraine.

Most of the transdermals that I prescribe include drugs such as nifedipine, baclofen, fentanyl, flurbiprofen, guanethidine mixed with lidocaine, or a combination of gabapentin and ketoprofen. For entrapment neuropathies of the face, topical gabapentin (either with or without ketoprofen) is very helpful. I determine the initial dosage from my experience of what has been effective in treating a particular condition and instruct patients to apply the prescribed gel in a very small quantity (usually about the size of an M&M candy) over the painful area. About 50% of those treated find a transdermal compound effective; they’ll tell us that they have noticed an improvement in the level of their pain. Many patients notice relief fairly quickly after the first application of the medication; others experience improvement after several days of following the treatment protocol. Sometimes, I’ll know that the preparation is effective because I observe a change in the appearance of the treated area or detect less tenderness to pressure or palpation during the patient’s physical examination. The only adverse effect of compounded transdermals has been the contact dermatitis that may develop in some patients. If you have a capable, qualified compounding pharmacist, customized formulations can be an extremely important part of a pain management physician’s armamentarium, because in many patients, they work!

Tom Marks, RPh, from Martin Avenue Pharmacy, Inc, in Naperville, Illinois, is a compounding pharmacist with whom Dr. Prunskis works very closely. As the interview continues, Tom describes his collaboration with a physician’s armamentarium, because in many patients, they work!

Continued

Did You Know That...

Dr. Prunskis often prescribes theophylline; they don’t have to penetrate too deeply. Usually, I compound a transdermal gel that is a mixture of hydroxyethyl cellulose (HEC), the most effective vehicle, as specified by Dr. Prunskis. He might specify HEC in a glycerin-based form or an ethoxyl diglycol base. We don’t often use PLO; Dr. Prunskis tends to use anhydrous forms of vehicles.

In which patients has a transdermal compound provided greater analgesia than other types of compounds?

One of our patients, who was 41 years old, had severe pain caused by osteoarthritis of the fingers. Dr. Prunskis prescribed topical ketoprofen (that ranged from the initial concentration of 2.5% to a final concentration of 5%) in HECS 1% gel. The patient was instructed to use the tip of his index finger to apply a tiny amount of the gel twice daily for the first week. It had to be applied to very specific sites (the trigger points for pain). If that type of gel is going to be effective in a patient, relief is usually noticed a minute or two after it has been applied. In that patient, the gel relieved both joint pain and stiffness very effectively. After about 1 to 3 weeks, he could obtain relief by applying the gel once daily (even every couple of days). This patient had experienced problems with other analgesic dosage forms and had even been treated unsuccessfully with narcotics to control his pain, but it was the nonnarcotic ketoprofen gel that worked.

Another 57-year-old male patient was experiencing quite a lot of pain in his wrist and knee from a sports-related injury that he had sustained when he was younger. His pain responded very well to treatment with a mixture of ketoprofen 2.5% to 5% and gabapentin 2.5% to 5% in HEC that was applied in a tiny amount to trigger points up to 4 times daily as needed. After the patient had applied the gel, he noticed relief within minutes. A 30-gram tube of the preparation lasted for months, and he still uses the gel for pain relief occasionally. For the patients I’ve described as well as many others in Dr. Prunskis’ practice, transdermal medications have provided the only effective relief for pain that was destroying their quality of life.

For additional information about compounding for pain management, contact John Prunskis, MD, Illinois Pain Treatment Institute, Ltd, telephone: 847.289.8822, e-mail: jpr@illinoispain.com; or Tom Marks, RPh, Martin Avenue Pharmacy, telephone: 888-355-6492, e-mail: info@martinavenue.com.

Medications Discontinued in the US Market

During the last 25 years, a record number of legend and over-the-counter medications that are safe to use have been discontinued in the US market. The three medications listed below were approved by the Food and Drug Administration (FDA) for the topical treatment of a variety of types of inflammation. Even though they are no longer available in the United States, a compounding pharmacist can prepare these products for your patient.

- Dexamethasone sodium phosphate cream (Decadron Phosphate Cream 0.1%)1
- Dexamethasone phosphate ophthalmic ointment 0.05% (Decadron Phosphate Ophthalmic Ointment)2
- Dexamethasone 0.04% topical spray (Decaspray Topical Aerosol)3

References