

Topical Ketoprofen for Fibromyalgia

Fibromyalgia is defined by the American College of Rheumatology as a chronic pain syndrome in combination with hyperalgesia. It is a common clinical syndrome most often affecting middle-aged women and is characterized by a generalized musculoskeletal pain, stiffness, chronic aching, sleep disturbance and fatigue. Tender points are important in the diagnosis of fibromyalgia and are described as specific anatomical sites with reproducible tenderness on palpation. These patients often suffer from a disturbance in stage IV sleep, suggested as a possible causative factor in fibromyalgia. Many theories have been suggested for the etiology of this condition, but one of the oldest is the theory that fibromyalgia may be caused by an inflammatory reaction.

Nonsteroidal anti-inflammatory drugs are a logical class of drugs to employ in the treatment of fibromyalgia. Nonsteroidal anti-inflammatory drugs such as ketoprofen cause peripheral inhibition of prostaglandin synthesis. Prostaglandins are important mediators of the inflammatory process; therefore, nonsteroidal anti-inflammatory drugs are effective in reducing the inflammatory reaction. Nonsteroidal anti-inflammatory drugs also act as analgesic agents, since prostaglandins are also known to sensitize pain receptors. The inhibition of prostaglandins is also responsible for several other unwanted side effects, such as decreased gastric mucosal cytoprotection, resulting in gastrointestinal (GI) disturbances, impairment of renal and hepatic function and inhibition of platelet aggregation. These are important considerations for patients with chronic disease states or patients who are on multiple medications.

Studies¹⁻⁴ show that ketoprofen administered topically provides the advantages of delivering the drug directly to the painful site and producing high local drug concentrations, while at the same time decreasing the systemic concentration of the drug. Topical administration would prevent most of the GI disturbances commonly encoun-

tered during oral nonsteroidal anti-inflammatory drug therapy. The decreased systemic concentration would also help to prevent hepatic and renal dysfunction, which can be seen with long-term use, and to decrease the inhibition of platelet aggregation. Therefore, a logical drug therapy regimen for the fibromyalgia patient might include a transdermal nonsteroidal anti-inflammatory drug, such as ketoprofen. Direct application of such a product that leads to reduced inflammation may also ease stiffness, aching and fatigue, thereby greatly improving the fibromyalgia patient's overall quality of life.

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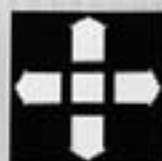
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