

## Topical Ketoprofen

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Ketoprofen, a nonsteroidal anti-inflammatory drug (NSAID), possesses analgesic, antipyretic and anti-inflammatory properties. Oral Ketoprofen is widely used in musculoskeletal pain and inflammation in muscles and joints, including arthritis pain, osteoarthritis, stiffness of the joints, soft tissue rheumatism, and sports injuries. (1). Topical formulations of NSAIDs have analgesic effects similar to that of oral formulations, but are associated with less systemic exposure and, therefore, with fewer serious adverse events (2).

In one study the results revealed that Ketoprofen cream formulation caused a significant reduction in the pain scale, removed the redness and swelling and improved the walking ability in rheumatoid arthritis patients (3). In another trial it was revealed that ketoprofen cream provided good level of pain relief, removed swelling and tenderness and improved functional impairment in volunteers suffering with rheumatoid arthritis (7).

Likewise, in another study, topical application of Ketoprofen appeared to offer a more favourable therapeutic profile than oral NSAIDs in the management of soft tissue injuries (1). It provided good symptom relief at low plasma concentration, favourable risk/benefit ratio and low incidence of AEs (1).

The efficacy of topical Ketoprofen, as well as that of other topical NSAIDs has been confirmed in meta-analyses (1). Moore et al.<sup>8</sup> carried out a quantitative systematic review of 86 randomised controlled trials, involving 10,160 patients, and reported a significant advantage of topical Ketoprofen, with respect to placebo, in relieving pain in acute and chronic conditions (number needed to treat, NNT, 2.6) (1).

It is interesting to note in a double-blind, placebo controlled study no adverse effects were observed over a 7- day period (4). In other trials, mild pruritus and erythema which did not lead to study discontinuation were the only AEs reported (5). Among the different NSAIDs used topically, ketoprofen has often been implicated in photosensitivity reactions (6). Photosensitivity includes both phototoxic and photoallergic reactions (6). However, it is important to point out the photoallergic reactions exists in many preparations including gels, creams, lotions, ointments, suppositories and oral medications (9).

Topical application of Ketoprofen is locally effective and at the same time minimizes the risk of systemic adverse events (1). Topical Ketoprofen has been widely studied in numerous trials and has been shown to be both effective and well tolerated thus making it a good choice for pain reduction in acute and chronic conditions which improves the quality of life.

### References:

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