INSTITUTE TO ENHANCE PALLIATIVE CARE

PALLIATIVE CARE CASE OF THE MONTH

The use of topical non-steroidal anti-inflammatory drugs for pain in palliative care

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Case: Mr. G is a 67 year-old gentleman with multiple myeloma complicated by lytic bone lesions. He presented to palliative care clinic with increasing pain in his right lateral ribs, a location which corresponded to a new lytic lesion seen on imaging. In the past, scheduled oral non-steroidal anti-inflammatory drugs improved his pain; however, now that his myeloma had progressed, his physician was hesitant to restart this intervention due to potential nephrotoxity.

Discussion: Topical NSAID preparations are attractive because direct application maximizes local analgesia and minimizes systemic distribution and associated adverse effects. Two topical NSAID formulations are available in the United States: Diclofenac sodium gel (Voltaren) and Diclofenac epolamine topical patch (Flector). High plasma concentrations of oral NSAIDs are required to achieve effective tissue concentrations at the site of pain and inflammation. Plasma concentrations following topical administration are usually less than 5-10% of the levels found following oral administration (1).

NSAIDs are often recommended as first line treatment for mild to moderate musculoskeletal pain (2). Although evidence does not support the use of topical NSAIDs in the treatment of acute or chronic low back pain (3), topical NSAIDs are effective in the treatment of musculoskeletal pain of other origins. A Cochrane review of the efficacy of topical NSAIDS in the treatment of acute musculoskeletal pain (sprains, strains, contusions) found that compared to placebo, the number needed to treat (NNT) was 4.5 to achieve 50% pain relief over treatment periods of 6-14 days (4). The effectiveness of topical NSAIDs for the treatment of chronic conditions is unknown (5).

Patients taking oral NSAIDs for ≥5 days at least twice annually have a 4.21 relative risk of gastrointestinal events compared to those who do not (6). Conversely, topical NSAIDs have a high margin of safety and have not been associated with acute renal failure or upper GI adverse events. Mild local adverse effects occur at approximately the same rate (6%) in patients treated with topical NSAIDs or topical placebo (4).

In the treatment of acute musculoskeletal pain, excluding low back pain, topical NSAIDS are more effective than placebo and are associated with less adverse events than oral NSAIDs. Current data suggests this intervention may be appropriate for patients with a flare of single joint arthritis or acute musculoskeletal injury.

Back to the Case: Although there are no studies evaluating the use of topical NSAIDs for bone pain related to metastatic disease, after discussion between Mr. G and his physician regarding potential treatment risks and benefits, he started a dicolfenac patch for analgesia. Several weeks later, Mr. G reported mild improvement in pain control without evidence of nephrotoxity.

References

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