

RESEARCH HIGHLIGHTS

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Clinical Research

Transdermal Fentanyl May Provide Effective Analgesia for Patients With Advanced Metastatic Disease

A study presented by researchers from Siena, Italy, examined pain control using transdermal fentanyl for patients with advanced metastatic disease. Fentanyl is a synthetic opioid that interacts primarily at μ receptors. Twenty patients receiving anticancer treatment were treated with 25-mg/h fentanyl patch. Patients included in the study had a high expectation of remission using specific anticancer treatments and a pain intensity higher than four using a visual analog scale. The pain lasted five days despite continuous use of nonsteroid anti-inflammatory drugs. The fentanyl treatment lasted two or three months; all patients were living after six months of treatment and experienced an average increase in Karnofsky Performance Status of 20–30 points. Toxicity was classified as mild—nausea and vomiting occurred in three patients, and confusion and delirium occurred in two patients. Two patients developed a paralytic ileus that was treated by hospitalization and rehydration and resolved in three to four days. The researchers concluded that transdermal fentanyl was well tolerated and may be advantageous during chemotherapy or radiotherapy in reducing pain and improving quality of life.

Dexketoprofen Is Effective and Well Tolerated for Bone Pain in Patients With Cancer

A collaborative group of researchers from Spain presented the results of a randomized double-blind study of dexketoprofen trometamol compared to ketorolac for patients with moderate to severe bone cancer pain who had not been previously treated with opioids. The variables used were pain intensity scores (PI) using a visual analog scale and pain rating indices (PRI) at the end of treatment. Secondary endpoints analyzed were withdrawal from treatment because of treatment failure. A total of 113 patients were enrolled in the study: 56 receiving dexketoprofen (25 mg four times daily) and 57 receiving ketorolac (10 mg four times daily). Group characteristics were comparable at initiation of the treat-

ments. On completion of treatment, the mean PI values were not significantly lower (31.7 versus 39.9 mm for the dexketoprofen and ketorolac groups, respectively; $p = 0.12$). PRI showed significantly reduced pain (8.8 versus 9.7, $p = 0.04$). In addition, the dexketoprofen group demonstrated a trend toward fewer withdrawals because of treatment failure (1.8% versus 10.5%, $p = 0.11$). No differences occurred in reported adverse events for dexketoprofen versus ketorolac. The researchers concluded that dexketoprofen is effective with a good tolerability profile.

Analgesia Is Improved With Combination Oxycodone and Morphine for Cancer Pain

Researchers from the University of Sao Paulo in Brazil presented results from a study comparing the efficacy of controlled-release formulations of morphine or oxycodone alone or controlled-release morphine plus oxycodone. Morphine and oxycodone are opioids that act primarily at μ and κ receptors, respectively. The objective of this study was to assess whether the combination of these two opioids acting at different receptors is more effective than each drug given alone. Thirty-six patients were enrolled in the trial. An open-label, randomized titration phase was used initially to achieve pain control for seven days. Then, patients were randomized into a double-blind, crossover phase consisting of two 14-day periods. Throughout the study, patients used oral morphine (10 mg) as needed to keep their pain at less than 4 cm on a visual analog scale (i.e., rescue analgesia). The results demonstrated that rescue analgesia consumption was significantly higher (38%) for patients receiving only morphine compared to those who received a fixed ratio of morphine and oxycodone (ratio 1:1.8). The researchers concluded that the combination of morphine and oxycodone might be a useful alternative to morphine alone with improved analgesia and fewer side effects.

Methadone May Be a Useful Alternative for Cancer Pain

A multinational team from the United States, Serbia, Chile, Colombia, Argentina, Brazil, and Australia presented the results of a study explaining the effectiveness and toxicity of methadone compared to morphine for cancer pain. Ninety-five patients from six

centers were randomized into groups to receive either methadone ($n = 45$, 7.5 mg orally twice daily) or slow-release morphine ($n = 50$, 15 mg orally twice daily) for four weeks. Breakthrough pain was treated with 5 mg of either drug (depending on group assignment) every four hours as needed. Results from the first week of treatment were presented. Pain was assessed daily using a 0–10 scale. Average baseline pain scores for the methadone group were 7.7 compared to 7.9 for the morphine group. After one week of treatment, no significant differences resulted between the two groups (4.9 versus 4.6 for the methadone and morphine groups, respectively). In addition, no differences existed in reported side effects (e.g., sedation, nausea, confusion, constipation). The researchers concluded that methadone and slow-release morphine have similar effectiveness and side effects, although methadone may be more cost-effective.

Methadone May Be Effective and Well Tolerated for Breakthrough Bone Pain in Patients With Cancer

Breakthrough bone pain in advanced cancer can be difficult to treat. Escalating opioid dosage may not be acceptable because of intolerable sedation, cognitive impairment, and myoclonus. Rotating analgesics to alternative opioids is preferred. Researchers from Memorial Sloan-Kettering Cancer Center in New York, NY, and Calvary Hospital in Bronx, NY, presented the results of a small study involving patients who had failed multiple trials of opioids and adjuvant analgesic drugs. Twenty-two patients were enrolled in the study. Eleven patients were rotated from fentanyl, nine from morphine, one from hydromorphone, and one from oxycodone. The average dose prior to rotation was 16.4 mg/h in morphine equivalents. The average final methadone dose was 2.8 mg/h in morphine equivalents. Excellent pain control was achieved in all patients. The researchers concluded that methadone can be effective and well tolerated for breakthrough bone pain. They suggested that it should be considered prior to using spinal analgesia.

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