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Editorial

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Cancer Breakthrough Pain Management Using Short Acting Fentanyl

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Editorial

As we know, Fentanyl is a strong opioid analgesic, commonly used as a transdermal patch for the treatment of chronic cancer pain. An Fentanyl through intranasal route administration is one of the best treatment approach for breakthrough cancer pain (BTCP). Its onset of action is quick and short duration of action, noninvasive administration route, high bioavailability, and avoidance of a hepatic first-pass effect makes more appropriate through this route (Leppert, W., 2010). Till now, few clinical trials are being done with intranasal fentanyl, but all have been proved to be useful and acceptable in BTCP treatment. A more recent method of BTCP management is use of rapid-onset opioids, including different formulations of fentanyl, ie, oral transmucosal fentanyl citrate, buccal fentanyl tablets, and intranasal fentanyl. The advantages of these new formulations are their quicker onset and shorter duration of action, which both fit the time profile of BTCP better because pain usually starts and intensifies quickly (in approximately three minutes) and lasts 30–60 minutes. So it is not fictitious.

It is to accept, Intranasal fentanyl can be used in opioid-tolerant patients without nasal pathologies (Portenoy, R.K., Hagen, NA., 1990). Patients with BTCP can have a promising option of intranasal fentanyl for the treatment, in spite of concerns of possible abuse, mostly in patients with chronic nonmalignant pain. Clinical management of Cancer Breakthrough pain (CBTP) is usually done with supplemental doses of opioids. Some of the short-acting opioid formulations, such as immediate-release morphine, oxycodone, hydrocodone, and oxymorphone, and are usually first-line treatment for moderate to severe breakthrough of pain. It was found thatImmediate-release opioids have an onset of action between 10 and 30 minutes, with the peak analgesic effect occurring between 1 to 1.5 hours (van den Beuken-van Everdingen, M.H., *et al*. 2007).

A disadvantage of immediate-release opioids is with outcomes of some adverse effects (AEs) even though there is reduction in pain. some patients are benefited with rapid-onset transmucosal fentanyl product, and has specific indications for breakthrough cancer pain. Some available formulations include an oral transmucosal tablet formulation (Actiq), an effervescent fentanyl buccal tablet (Fentora), an immediate-release transmucosal tablet (Abstral), a nasal spray (Lazanda), and a sublingual spray (Subsys). Secondly, the onset of analgesia ranges between 5 and 15 minutes, with a peak analgesic effect between 1 and 2 hours. However, the cost of Trans mucosal fentanyl preparations can be a matter of worry. All transmucosal fentanyl products and other select opioids have a mandatory risk evaluation and mitigation strategy, aimed at reducing risk,addiction,misuse,abuse,and unintentional over dose (van den Beuken-van Everdingen, M.H., et al. 2016). Immediate-release oral opioids are appropriate to treat predictable episodes of pain when administered at least 20 minutes before the potential pain trigger. End-of-dose failure and uncontrolled persistent pain are usually managed by evaluating and adjusting the scheduled opioid regimen. Breakthrough pain is prevalent among patients with cancer and, if left untreated, can have major consequences on a patient's therapy, quality of life, and survival. Successful care includes proper assessment; treatment of the underlying cause, if possible; and selection of an agent that will optimize analgesia and minimize AEs.

FENTANYL was one of a series of opioids introduced by Janssen Pharmaceutica in the 1950s and 1960s in an effort to enhance analgesic activity and potency with fewer adverse effects when compared with morphine or meperidine (Andrews,C.J.H & Prys-Roberts, C., 1983). In combination with the butyrophenone, and droperidol used clinically as a component of neuro leptanalgesia. Between 1975 and 1981, fentanyl was adopted widely as a potent intraoperative analgesic agent with relatively few adverse effects. In small-to-moderate bolus doses 3 to 5 [micro g/kg], combination with different intravenous supplements was effective as"balanced" anesthesia, but in large doses (as much as 100 [micro g/kg) were used to maintain anesthesia in critically ill patients and for them, who were undergoing cardiopulmonary bypass surgery (Stanley, T.H., 1992).

But its analgesic efficacy relative to the intensity of side effects prompted for its use as an analgesic agent after operation or in the ICU. Fentanyl is used widely as an analgesic agent in the postoperative or critically ill patient. Because of its physical properties and potency, it is effective via multiple routes of administration; non-invasive routes are being developed. Subarachnoid use provides the most intense, complete analgesia, although intravenous PCA, with its more convenient format, also is effective. Secondly, adverse effects are apparent with all modes of administration. Pruritus, urinary retention, and nausea and vomiting are common, and all patients receiving fentanyl for postoperative analgesia require vigilant monitoring to detect and treat respiratory effects (Nilsson, E., 1963). New experimental modalities, especially iontophoretic application and transmucosal delivery, present promising opportunities for postoperative analgesia, which arises question to be fictitious some times.

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