THE EFFECT AND SAFETY OF TRANSDERMAL FENTANYL FOR CONCURRENT CHEMORADIATION THERAPY– INDUCED MUCOSITIS PAIN IN HEAD AND NECK CANCER PATIENTS

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Purpose **:** This prospective, longitudinal study was to evaluate the efficacy and the safety of using TTS-fentanyl for severe oral mucositis pain induced by concurrent chemoradiotherapy (CCRT) in head and neck cancer (HNC) patients.

Materials and Methods **:** Patients diagnosed as HNC and scheduled for concurrent chemoradiotherapy were eligible for this study. TTS-fentanyl was given with the initial dose of 25 μg/h when severe mucositis pain (numeric rating scale [NRS] ≧ 7) occurred in spite of nonsteroid anti-inflammatory drugs (NSAID) and topical steroidal ointment use. The pain intensity was assessed every week and if severe pain persisted, another dose of 25 μg/h TTS-fentanyl was given. The adverse effects were recorded every week according to Common Toxicity Criteria (CTC) Version 2.0.

Results **:** From October 2002 to March 2003, 21 male and 1 female receiving CCRT with HNC were recruited to this study. The mean NRS for pain significantly decreased from 7.65 ± 0.99 (baseline) to 3.9 ± 1.29 within the first week. In the fifth week, the NRS raised to 4.79 ± 1.18 but was still lower than the baseline ($p = 0.003$). The sufficient analgesia was achieved in 15 cases with a dose of 25 μg/h, in 5 cases with a dose of 50 μg/h, and in 1 case with a dose of 100 μg/h. One patient withdrew the TTS-fentanyl due to intolerable skin rash and vomiting in the second week. Besides, no one developed respiratory depression, mental clouding, or grade III/IV gatrointestinal toxicities.

Conclusion **:** TTS-fentanyl is effective and safe in the treatment of mucositis-induced pain which is resistant to NSAID in HNC patients receiving CCRT. TTS-fentanyl also spares the need to swallow pain killers in these patients suffering from odynophagia and/or dysphagia, as well as the time for titration of conventional analgesic drugs. Further larger series with randomized setting is warranted to evaluate the efficacy and safety of TTS-fentanyl for oral mucositis pain.

[Therapeut Radiol Oncol 2005; 12(2): 103-111]

Key Words: Transdermal fentanyl, Mucositis, Head and neck cancer, Concurrent chemoradiation therapy (CCRT)

Received: 2005, 2, 2 . Accepted: 2005, 4, 4.

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