The place of Transtec® in opioid rotation – new data show successful switch from high-dose morphine

Aachen, Germany, 06 July 2007. Opioid rotation is today seen as an option to improve pain management, especially in long-term treatment. The benefits are improved analgesia together with a reduction in side effects, toxicity and/or tolerance problems. Switching from high-dose morphine to transdermal buprenorphine (Transtec®) is not only feasible in chronic pain patients, but can result in better pain relief at significantly lower doses.

According to the WHO, moderate to severe persistent pain is an indication for use of potent opioids. Many patients achieve adequate analgesia with morphine which is frequently used as first-line treatment, but a significant number suffer from intolerable side effects such as nausea, dizziness, fatigue, and constipation or respiratory depression. The development of analgesic tolerance often necessitates the use of escalating doses in long-term therapy. Opioid rotation is becoming an established alternative practice to improve pain management in this situation.

A recent study has demonstrated that switching from high-dose morphine to Transtec® can result in improved analgesia and lead to stable dosing

In the sub analysis of an open-label, non-interventional study patients were evaluated who suffered from severe musculoskeletal, cancer or neuropathic pain. These patients, receiving high-dose morphine of up to 800 mg/day, necessitated the rotation to an alternative opioid, due to insufficient analgesia and severe side effects (Freye, 2007). The switch to Transtec® led to the following outcome:

- After rotation the number of patients with good/very good pain relief increased from 5% to 76% and sleep quality was significantly improved.
- In the majority of cases sufficient pain relief was achieved through the use of buprenorphine alone without additional pain medication.
- Following individual titration, the doses of buprenorphine required (for the majority 52.5 µg/h) were significantly lower than expected by using current conversion factors.
- Buprenorphine doses remained stable indicating less tolerance development.
- None of the side effects that had contributed to the required change of treatment were documented during the period of observation after the switch.
- The side effects of Transtec® therapy were negligible and there were no serious adverse events.

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The authors conclude that "buprenorphine was a viable alternative to morphine therapy with substantial benefit in both analgesia and sleep quality following opioid rotation. In addition to the reduced development of tolerance, side effects with transdermal buprenorphine were reduced. Also, rotation from high-dose morphine was accomplished without any instance of withdrawal symptoms from morphine."

The results of this investigation have been supported by other documented studies on opioid switching:

- It has long been assumed that slow association to and incomplete dissociation of buprenorphine from opioid receptors may reduce the accessibility of opioid receptors, possibly impairing antinociception after switching from and to buprenorphine. However, it has now been demonstrated in vivo that there is no evidence for longer lasting μ-opioid receptor occupancy and that no impairment of antinociception in the case of opioid switch could be expected (Englberger et al., 2006).

- The equipotency ratio is defined as the ratio of the doses of two opioids required to produce the same analgesic effect. Using oral morphine as the standard comparator, an equipotency ratio of 1:75 has been proposed for Transtec®. However, recent clinical experience suggests that this ratio may not be accurate and an equipotency ratio of 1:100 to 1:115 for transdermal buprenorphine would appear to be more appropriate (Sittl et al., 2005).

About Grünenthal

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References