

BUPRENORPHINE SPARING EFFECT OF GABAPENTIN IN PATIENTS WITH CHRONIC NONMALIGNANT PAIN

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Introduction: Buprenorphine (Bup) is partial mu-agonist/ kappa-antagonist with limited tolerance and available for the treatment of opioid dependence as well as acute or chronic pain. Gabapentin (GBP) binding to the alpha-2-delta calcium channel subunit, includes the list of first-line medications for the treatment of chronic neuropathic pain. Combination of GBP and morphine achieved better analgesia at lower doses of each drug than either as a single agent¹. However, there is little data available on concurrent medication of Bup and GBP. In the present study, we investigated the add-on therapy of GBP to sublingual Bup in patients with chronic nonmalignant pain.

Methods: We retrospectively performed a chart review of 15 outpatients (mean age, 62.8 years; range, 26 to 86 years) with chronic nonmalignant pain, who had received the treatment of sublingual Bup under our pain clinic supervision for at least 6 months prior to the add-on GBP therapy during 6 months. They were treated by different 3 physicians, who regulated Bup dosage with an escalating dose of GBP at every visit for better analgesia (less than a visual analog scale 40mm) and relief of adverse effects by Bup and GBP. We recorded the daily dose of sublingual Bup (BD), a visual analog scale (VAS) scores, Bup or GBP-induced side effects, before the add-on GBP therapy (pre) and 6 months after the beginning of the add-on GBP therapy (post). Data were analyzed using paired t-test. P values less than 0.05 were considered significant.

Results: The mean BDpre and BDpost were 480.0 ± 302.8 µg /day and 246.6 ± 176.7 µg /day, respectively. The mean VASpre and VASpost were 53.3 ± 16.5 and 35.4 ± 17.7 , respectively. The mean BDpost and VASpost were significantly lower than the mean BDpre and VAS pre ($p=0.0038$, $p=0.0015$, respectively). The mean maximal GBP dose was 940.0 ± 392.4 mg (means±SD). No patients experienced a serious adverse event.

Conclusions: Our results demonstrate that the add-on GBP therapy can provide the buprenorphine-sparing effect and better analgesia in the chronic pain patients with buprenorphine treatment, though this pilot study had the limitation.

References:

1. N Engl J Med 2005;352:1324-34