

TREATING POSTOPERATIVE PAIN IN THE PATIENT WHO IS IN RECOVERY OR REMISSION FROM OPIOID ABUSE: FOCUS ON TAPENTADOL

To the editor:

Postoperative pain, acute pain, chronic pain and neuropathic pain presents a challenge to both the patient and clinician. This challenge is more prominent when the patient is in recovery or remission for opioid abuse. Opioids present a patient/family mediated fear of precipitating a relapse from opioid exposure administration.

The clinician respects the patient's expression of opioid fears and engages a variety of multimodal therapies for pain management often devoid of opioid pharmacotherapies. The multimodal postoperative plan may include when appropriate non-steroidal anti-inflammatories,^{1-5,10} antidepressants (duloxetine, venlafaxine),^{6-9,11,12} anticonvulsants (gabapentoids, topiramate),⁷ skeletal muscle relaxants (SMR's, tizanidine, baclofen, orphenadrine),¹³ acetaminophen,² topical anesthetics (lidocaine).⁷

Prescribing and creating a patient-specific, patient-focused, patient-centered personalized treatment plan becomes an opportunity based upon knowledge, wisdom and judgement.¹⁴ Laboratory indices such as creatinine clearance (Cl_{cr}), QT_c prolongation, awareness of the pharmacotherapy cytochrome P450 events, collateral co-morbidities and social history encompass portions of the decision making process. This is coupled with patient expectations of the treatment plan. This expectation is to be negotiated with the realization of the limits of the pain pharmacotherapy may provide. Remember that "pain free" is anesthesia and may not be provided by analgesia. The patient and family is to understand and accept that pain may be reduced in quality and intensity but may not be ablated.¹⁴

We have discovered that tapentadol a CII opioid has a paucity of euphoria associated with its acute and chronic administration in our inpatients and outpatients. This may be due to a near absence of events on the nucleus accumbens (NAc) and ventral tegmental area (VTA). Tapentadol has a binary mechanism of action as an opioid and re-uptake inhibitor of the monoamine norepinephrine (NE).⁷

The patients who were in opioid recovery or remission experienced no resurgence of the "old reinforcing feelings of opioid abuse." This absence of euphoria is reflected in our other non-surgical patients (inpatients and outpatients). Additionally there is a near absence of GU-retention, constipation or pruritus experienced in our patients.

Tapentadol has the following selected characteristics.¹⁵

Bioavailability (F); ~32 percent

Volume of Distribution (V_d): 540-600L

Metabolism: 85 percent phase II glucuronidation

15 percent CYP450 (13 percent 2C9, 2C19, 2 percent 2D6)

Elimination: 99 percent renal (70 percent inactive and 3 percent as parent compound)

Note: not dialyzable, presenting an opportunity for HD patients, no active analgesic metabolite

T_{Max} : 3 to 6 hr for extended release dose form

1.25 hr for immediate release

C_{Max} : 16 percent decrease in elderly

Plasma protein bound: 20 percent

Elimination half-life ($T_{1/2}$): 4 to 5 hr for immediate release, extended release up to 8 hrs

Indications for Tapentadol acute pain: (immediate release), extended release: chronic pain and peripheral diabetic neuropathy.

The tapentadol molecule appears to be an opioid of choice in those patients during recovery, remission, or rehabilitation in whom an opioid is an essential addition to a multimodal treatment plan for improved pain management when judiciously prescribed to facilitate enhanced activity of daily living and functionality.

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