Opioid Rotation and a Classification System for Cancer Pain: We Need to Speak the Same Language

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Opioid rotation is commonly understood to imply a switch from one opioid to another with the aim of achieving a better balance between analgesia and side-effects (1). The key stone to the success of this approach is the concept of incomplete cross-tolerance between opioids. Through the mid 1990s the Edmonton Palliative Care Program published reports of both anecdotal examples (2) and case series (3) demonstrating the clinical usefulness of a trial of a variety of opioids in problematic clinical settings. In particular the report of the case series (3) is often quoted and debated. In this report 80 of 191 patients had an opioid rotation for a variety of problems such as cognitive failure, hallucinations, myoclonus, uncontrolled pain and nausea. Symptoms were noted to improve in 73% of patients.

The increasing number of reports from many centres regarding the problematic adverse effects of commonly used opioids such as morphine, particularly at higher doses, and the increasing popularity and controversy over the concept of opioid rotation resulted in the European Association of Palliative Care forming a Working Group. This group attempted to develop evidence-based recommendations on strategies to manage the adverse effects of oral morphine (4). This report acknowledged that 10 to 30% of cancer patients failed to achieve adequate analgesia without excessive side effects. The group recommended four strategies for dealing with this issue: -

1. Dose reduction that included adding a co-analgesic, adding an adjuvant analgesic, therapy targeting the cause of the pain, and regional anesthetic/neuroablative intervention.
2. Symptomatic treatment.
3. Opioid rotation/switching.
4. Changing the route of administration.

They concluded that there was inadequate data for specific recommendations and agreed that there were six factors to consider including convenience, availability, cost, familiarity, experience/expertise, and patient preference. A recent critical review of equianalgesic dose ratios for opioids (5) concluded that opioid rotation was hampered by poor data and wide variations in equianalgesic doses, and that ratios may vary with the direction of opioid switch.

The EAPC Report suggested further research in the following areas (4): -

1. Efficacy of opioids sparing approaches.
2. Efficacy of dose reduction.
3. Efficacy of management of adverse effects.
4. Efficacy of opioid rotation.
5. Efficacy of switching opioid routes.
6. Comparative studies randomizing between the above options.

However a major problem arises when considering research on the above topics in that we have a problem when we compare research on cancer pain in different settings. The TNM Staging System for Cancer allows a common language for clinicians and researchers. However there is no similar widely accepted staging system for cancer pain allowing us to compare pain treatment results. The difficulty this causes is illustrated by the fact that in our original case series report on opioid rotation (3), reference was made to the Edmonton Staging System for cancer pain. This report indicated that patients requiring opioid rotation had significantly more difficult pain syndromes than the patients that did not require opioid rotation. This point was overlooked by a report describing 149 referrals to hospital based palliative care team in the United Kingdom (6). This review concluded that 13 patients developed confusion related to opioids and responded to an opioid dose reduction. As a result they concluded that they could not reproduce the Edmonton results and in their experience opioid rotation was unnecessary and the problem could be resolved by merely reducing the opioid dose. In a letter in response (7) we pointed out that comparing cancer pain syndromes in a group of patients referred to a palliative care consulting service in an acute care hospital to a group of highly selected problematic patients in a tertiary palliative care unit was potentially a major source of error. We noted that comparing 50 consecutive

patients seen at the Royal Alexandra Hospital and the tertiary palliative care unit at the Grey Nuns Hospital, demonstrated that only 10% of the patients at the Royal Alexandra Hospital had Stage 3 or poor prognostic pain syndromes compared to 66% of patients on the tertiary palliative care unit.

The Edmonton group has been using the Edmonton Staging System developed by Dr. Eduardo Bruera for over ten years (8, 9). This staging system includes mechanism of pain, incidental pain, previous opioid dose, cognitive function, psychological distress, tolerance, and addiction as a systematic way to assess and describe good and potentially poor prognostic factors associated with a patient's cancer pain syndrome. However we have to acknowledge that although the Edmonton Staging System has been useful and widely used by our group, there are a number of problems with definition and interpretation that has limited national and international acceptance. As a result over the last two years we have been working on a revised Edmonton Staging System that has characteristics of the TNM Classification System for Cancer Pain. Our early experience has once again demonstrated the difficulty of clarifying definitions and terminology that would be widely understood and accepted. However clinical classification of cancer and the TNM System was apparently pursued for 50 years before international agreement was reached (10). Discussion with colleagues locally, provincially, nationally and internationally has provided very positive feedback and agreement that we desperately need an accurate system to describe our cancer pain syndromes and allow fair comparison of clinical and research outcomes. This ongoing research is expected to occupy some of us in a challenging project for years to come.

References:

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