

Treatment of Pain Revisited – The argument against too rapid resort to narcotic analgesics in Emergency Departments in Australia

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Article Info

Article Notes

Received: June 25, 2023

Accepted: September 12, 2023

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Keywords

Pain management

Opioids

Patient assessment

Clinical evaluation

Abstract

Introduction: Pain is a common neurological complaint with many patients already taking narcotic analgesics at presentation to the neurologist. This paper examines an approach to pain management aimed to avoid narcotic analgesics.

Clinical Practice: Pain is subjective and may be considered as either acute or chronic pain, differentiated between pain provoking avoidance or pain without benefit. Pain management is determined by the underlying diagnosis and clinical status.

Use of Narcotic Analgesics: Narcotic analgesics have the potential for abuse and pose public health risks. Abuse has increased among street and recreational drug users. The Australian Government restricted access to combination codeine containing medications, requiring a prescription and medical supervision.

Discussion: While there exist specific pain syndromes, the use of narcotic analgesics should be judicious. Their use should be restricted to refractory pain but should not exclude their legitimate use, once alternative remediation has been exhausted and entails medical supervision.

Conclusion: Narcotic analgesics should not be the first line treatment for pain, with initial approach directed towards diagnosis and treating the underlying cause. Once refractory chronic pain has been established, narcotic analgesics should be available under medical supervision, acknowledging the risk of overuse and addiction.

Introduction

Pain is one of the most common complaints to require neurological intervention^{1,2}, affecting between 20 and 40% of patients attending the neurologist², irrespective of the final diagnosis. Many of these patients are referred from family physicians or present, having been seen first in the Accident and Emergency Department of the hospital to which the neurologist attends³⁻⁵. One third of new specialist neurological appointments are due to headaches, with primary brain lesions being extremely rare and there being little difference in clinical severity of referred patients when compared with those managed in primary care⁴. Often the family physician is pressured into referring the patient to the neurologist, as a consequence of the patient's insistence, even though the complaint could be adequately managed by the primary care doctor³. At the time of presentation to the neurologist, many of these patients are already taking narcotic analgesics⁶. Endone®, OxyContin, is widely prescribed when less aggressive intervention may be equally suitable and less addictive⁷.

The paper to follow explores alternative approaches to pain management in everyday clinical neurological practice.

Background Information

The Australian Government has acknowledged the misuse of opioids in Australia⁸ pointing out that in 2014, at least 3 million people in Australia were prescribed opioids under the Pharmaceutical Benefits Scheme⁸. Over the decade, from 2009, there has been a significant increase in prescriptions thereof, from 10 million to 14 million annually⁸. On a daily basis there are ~150 hospital admissions and 14 emergency department admissions due to opioid harm, with 3 opioid related death⁹. Much of the focus on opioid misuse is focused on overdose presentations¹⁰ but this approach ignores where many of the initial prescriptions for opioids originate, namely in the emergency departments in major teaching hospital, long before there is any inkling of potential harm. The Society of Hospital Pharmacists of Australia have acknowledged this problem and profess a need to address this¹¹ but that would need those who prescribe opioids to recognise that which they are doing and be prepared to change their ways. Change is never easy and the paper to follow is, in some small way, trying to contribute to that change.

Clinical Practice

Pain is a symptom expressed by the patient and hence is totally subjective¹², being the product of a noxious stimulus, predicated by the patient's idiosyncratic pain tolerance level and psychological state at the time of the stimulation¹². There has emerged the concept of 'neuropathic pain', being pain evoked by either a specific lesion or other influence affecting the somatosensory system, for which there has been developed a grading system^{12,13}. There has been an attempt to differentiate chronic pain from neuropathic pain, claiming 20-30% prevalence for chronic pain and ~5% for neuropathic pain^{12,14}. Others have considered pain under the rubric of either acute pain (being a warning requiring an acute intervention) or chronic pain (in which the pain no longer serves as an acute warning or the source thereof is unclear)¹².

The approach to the management of pain is determined by its cause, the underlying diagnosis and the prognosis, such that treatment may be directed at the underlying condition or offer symptomatic relief when the underlying diagnosis remains obscure, or the prognosis is so poor that the only consideration is that of quality of life¹². As with all medical presentations, the management starts with the taking of a comprehensive history, including psychosocial history which may have a direct influence on the experience of pain¹². Physical examination and subsequent investigation, depending on the suspected diagnosis, are directed towards confirming the cause of the pain and the underlying condition associated with it¹².

There are some specific pain syndromes that lead to attendance at the neurologist, including: Reflex Sympathetic Dystrophy (also known as Complex Regional Pain Syndrome)^{12,13-16}; spinal pain^{12,17-19}; temporomandibular joint dysfunction^{12,20,21}; trigeminal neuralgia and atypical facial pain^{12,22,23}; and post-herpetic neuralgia^{12,24,25}. The aim of this review is not to examine these conditions in depth but rather to acknowledge the need to differentiate pain syndromes into their individual diagnoses and to treat each of these based on such diagnosis, and to explore the unnecessary overuse of narcotic analgesics in their management.

Use of Narcotic Analgesics

Narcotic analgesics, such as Endone® (OxyContin), have the potential for abuse and pose public health risks when overpromoted and highly prescribed⁷. One possible explanation for this might be that those treating patients who present with pain as their main complaint consider pain to be the actual diagnosis rather than a symptom of an underlying diagnosis which is the root cause of the pain. Van Zee⁷ specifically evaluated OxyContin and identified aggressive marketing as a cause of its popularity. By 2004, OxyContin was a leading drug of abuse in the United States²⁶. Analgesic abuse has increased among street and recreational drug users, with OxyContin and hydrocodone products being the most frequently abused²⁶, making their indiscriminate use for minor pain syndromes absolutely unacceptable, especially when less aggressive or more specifically focused remedies are available. Steps need to be taken to reduce prescription drug abuse, with great care exercised, in the nature of these actions, so that the legitimate and appropriate use of these drugs in pain management is not compromised as a result²⁶. The interface between the legitimate medical use of opioids to provide analgesia and the phenomena associated with abuse and addiction continues to challenge the clinical community leading to uncertainty about the appropriate role of these drugs in the treatment of pain²⁷. OxyContin has not been shown to be superior to conventional, immediate-release oxycodone taken 4 times daily other than to reduce frequency of dosing²⁸.

Tramadol is a centrally acting analgesic. Structurally it is not an opiate, but it has some opioid characteristics, binding to μ receptors, although very weakly (binding affinity is 10 times less than codeine and 6000 times less than morphine)²⁹. It is an effective analgesic for moderate and possibly, severe pain with comparative studies in postoperative and post-trauma pain indicating that tramadol 100 mg intramuscularly or intravenously was equivalent to 5–10 mg of morphine³⁰. Tramadol is not without risks as it may provoke seizures in susceptible individuals and should be avoided in those with epilepsy and used cautiously if co-administered with medications

known to lower seizure threshold, including tricyclic antidepressants, selective serotonin reuptake inhibitors, major tranquilisers, bupropion and opioids³⁰. Other serious adverse effects include hallucinations, hypertension and hypersensitivity reactions³⁰.

Based on the above examples, the use of narcotic analgesics should not be taken lightly and should only be used once the treatment of the underlying diagnosis, which was the root cause of the pain, has failed to relieve that pain. The use of simple analgesia should also have been tried before resorting to the use of narcotic analgesics. The Australian Government has restricted access to combination codeine containing analgesics, claiming that the efficacy of medicines containing low-dose codeine, combined with paracetamol or nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen or aspirin, is generally no more effective than other non-codeine medicines³¹. Prior to 1st February 2018, codeine containing analgesics could be obtained from the pharmacist across the counter, but after that date they could only be accessed via a valid prescription³¹. The Therapeutic Goods Administration stated that *"Codeine is an opioid drug closely related to morphine and, like morphine, is also derived from opium poppies. Codeine, like morphine and other opioids, can cause opioid tolerance, dependence, toxicity and in higher doses, death."*³¹.

Discussion

Pain is amongst the most common complaints to confront the neurologist¹², but it is imperative to appreciate that pain is a symptom rather than a diagnosis, and the initial approach is to treat the underlying cause of the pain¹². Often, by the time the patient sees the neurologist (s)he is already using narcotic analgesics, such as Endone® or Tramadol®, when less aggressive treatment may be more suitable with less potential for addiction⁷. Pain has been considered under various classifications¹²⁻¹⁴, but the one that lends itself best to clinical interpretation is that of acute pain (functioning as a protective early warning system aiming to avoid noxious stimuli) and chronic pain, which no longer serves a useful purpose and causes great disruption to quality of life¹². While there exist specific pain syndromes^{12,15-25}, it is imperative to be conservative in the application of aggressive pain management, resorting to narcotic analgesics when more simple NSAIDs may be equally effective, with far less risk of addiction and antisocial behaviour^{7,26}.

There are a multitude of non-narcotic remedies for pain that deserve consideration before resorting to narcotics, these include: non-steroidal anti-inflammatory medication, such as paracetamol; corticosteroids in appropriate situations, including relieving the very acute pain of gout; anti-depressant medications, such as tricyclic medications,

including amitriptyline or imipramine; anti-seizure medications, such as sodium valproate, carbamazepine, gabapentin or pregabalin; and some topical applications, such as capsaicin cream³². There are also physical remedies that may produce pain relief, including "physical activity" which is often recommended for the management of chronic pain and its effectiveness has been confirmed in clinical trials for a variety of pain conditions³³. All sorts of social contact(s) can be therapeutic when considering pain management³⁴ and there are alternative forms of medical intervention for pain relief, including: hypnosis³⁵; meditation³⁶; and a variety of herbal remedies³⁷.

The use of narcotic analgesics should be restricted to those conditions in which other avenues of pain relief have been explored and exhausted rather than as a first line remedy. This should not be interpreted as decrying the legitimate use of narcotic analgesics, which definitely do have a place in pain management^{26,27}, but initial intervention should be directed at the definition of the underlying cause of the pain and proper remediation of that diagnosis where practicable. A perfect example in which this is demonstrated is in the management of tension type headaches where tricyclic antidepressants play a pivotal pain-relieving role³⁷⁻⁴⁰, despite many patients seeing the neurologist already prescribed narcotic analgesics, such as Endone®⁶, for the headaches. Even simple analgesics, combined with codeine have been acknowledged as causing addiction. As stated by the Australian Therapeutic Goods Administration, *"... Regular use of medicines containing codeine, for example for chronic pain, has led to some consumers becoming addicted to codeine without realising it. The risks associated with codeine use are too high without oversight from a doctor"*³¹. This comment emphasises the role played by the doctor in supervising the use of pain relieving remedies in the management of chronic pain and the need for vigilance when prescribing narcotic analgesics.

Where the underlying cause of the pain is refractory to treatment and the quality of life is adversely affected by the pain, the legitimate use of narcotic analgesics should not be curtailed^{26,29,30}. This has particular relevance to patients undergoing palliation⁴¹, but even there, there needs to be a considered rationale involved in the choice of analgesic and the patient's response thereto⁴².

Conclusion

The use of narcotic analgesics should not be the first line treatment for pain syndromes and the initial approach should be to discern, confront and treat the underlying cause of the pain. Once chronic pain has been established and proven to be refractory to other intervention, the proper use of narcotic analgesics should be administered under medical supervision being ever vigilant of the risk of overuse and addiction in those situations where this has

particular relevance.

Conflict of Interest

Author declares that there is no conflict of interest.

Funding

There was no external funding for this paper.

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