

Managing chronic nonmalignant pain

Treatment of chronic nonmalignant pain requires consideration of the type of pain, commonly nociceptive or neuropathic, experienced by the patient. Also, common management pitfalls, such as resting the painful area, should be avoided.

DAVID A. CHERRY
FFPMANZCA

Associate Professor Cherry is the Convenor of Medical Panels SA. He is the former Director of the Pain Management Unit at Flinders Medical Centre, Bedford, SA, and former President of the Australian Pain Society.

Recent estimates indicate that in 2007 there were 3.2 million people in Australia experiencing chronic pain.¹ A large percentage of these people require ongoing medical management, which puts a large burden on Australian health care budgets. Estimates place the total cost of chronic pain to the Australian community at \$34 billion per annum.

The limited number of multidisciplinary pain units in Australian hospitals cannot manage even a small percentage of these patients and, therefore, that responsibility appropriately falls largely to the GP. It is unlikely that contemporary GPs have had more than a rudimentary training in pain management because pain is usually poorly represented in undergraduate teaching curricula. Hopefully, this imbalance will be addressed in the future.

Unfortunately, those who like a black and white solution to clinical problems will be disappointed,

because pain management is still very much more of an art than a science. There are shades of grey, misconceptions and pitfalls that contribute to making this a fascinating area in which to work.

Acute pain

Acute pain, associated with trauma or surgery, is generally easier to manage than chronic pain. This is because the type of pain is usually related to a form of tissue damage resulting in excitation of nociceptor nerve endings and there is unlikely to be learned pain behaviour. The time of onset is predictable and there is every expectation that pain relief will follow wound healing. Few would deny that the use of potent opioid drugs in these circumstances is worthwhile.

Chronic pain

Chronic pain is defined as pain lasting more than

IN SUMMARY

- In 2007 there were 3.2 million people in Australia experiencing chronic pain, defined as pain lasting more than three months.
- The causes of pain behaviour are nociceptive pain, neuropathic pain or pain disorders.
- Chronic pain is very unlikely to resolve spontaneously and in most cases treatment can be assumed to be ongoing.
- An opioid trial should be considered in patients with nociceptive pain; anticonvulsants should be the treatment of choice for patients with neuropathic pain; and psychological management should be used for the treatment of patients with pain disorders in the absence of nociceptive and neuropathic pain.
- The common chronic pain management pitfalls such as resting when in pain and treating the site of referred pain should be avoided.

three months, which is the upper limit of normal time for wound healing. This time course implies that factors other than wound-generated nociception may be contributing to the pain.

Pain behaviour

Distinct from acute pain, it is important to think of chronic pain in terms of pain behaviour. Patients experiencing pain do not present with objective signs or symptoms as they would with high blood pressure or a raised blood glucose level. They do, however, present with symptoms and signs that, when taken together, allow practitioners to make subjective assessments of the likely causes of the observed pain behaviours.

The causes of pain behaviour in decreasing incidence are:

- nociceptive pain due to excitation of mechanical, thermal or chemical nociceptors
- neuropathic pain, defined as pain related to disease or injury of the peripheral or central nervous system (extending to the spinal cord)
- pain disorders that exist when it is not possible to explain the patient's symptoms on a physical basis.

An organic pain disorder exists when a patient has some evidence of physical disease, but it is insufficient to explain the severity of the presenting symptoms. Where there is no evidence of any physical disease, a pain disorder should be considered. Pain disorders can be either subconscious (conversion or hysterical disorders) or, less likely, conscious (malingerer).

A patient can present with one or more of these types of pain. As the management of each situation is significantly different, it is important to have a clear understanding of the likely contributors to a patient's pain behaviour before embarking on therapy.

In addition to the three main causes of pain behaviour, the psychological and social consequences of experiencing pain for many months or years and the behavioural consequences of different cultures should be considered. Hence, the assessment of a patient's pain behaviour can often be a complicated and time-consuming matter. In some cases referral of patients to a pain medicine specialist will be required. Chronic pain is very unlikely to resolve spontaneously and, therefore, in most cases treatment can be assumed to be ongoing.



Management options

A summary of management options for chronic pain is given in the box on page 38.

Nociceptive pain

Opioids (such as fentanyl, morphine and oxycodone) remain the drugs of choice to treat patients with nociceptive pain. Specialist pain units have tests available that can determine a patient's opioid responsiveness. These cannot be realistically performed in general practice, especially rural practice, and therefore an opioid trial should be considered. The patient is commenced on a low dose of a sustained-release opioid preparation and the benefits and side effects are monitored over the trial period.

The patient should be given a clear diagnosis and have an understanding of what would be considered an acceptable increase in function to offset the known adverse effects of opioids. The patient and GP should be in agreement about the issues of prescribing intervals and compliance.

Incredibly, with the number of patients increasingly moving between different states and territories in Australia, there are differences in opioid-prescribing rules throughout the country. In South Australia, for example, it is possible for patients to have their blood opioid levels measured (specifically for fentanyl, morphine and methadone, with oxycodone measurement a work

Management summary

Patients presenting with pain behaviour indicating either nociceptive or neuropathic pain as the principle contributor should, in the first instance, be managed by their GPs. I encourage rural GPs in particular to phone the closest pain unit for advice on managing these patients, particularly if they are uncomfortable about commencing long-term opioids or gabapentinoid-type drugs. If a pain disorder is suspected then these patients, who form a very small minority, should ideally be referred to a pain unit.

in progress). This provides an objective addition to patient management.

Chronic pain is usually present 24 hours a day, so sustained-release opioids or transdermal preparations, such as buprenorphine or fentanyl patches, should be used. This decreases the possibility of significant opioid troughs and resulting breakthrough pain. Methadone, with a variable and unpredictable half life, is most likely to be too difficult to use in general practice.

Neuropathic pain

Until about 15 years ago, there was little need to differentiate between patients with nociceptive and those with neuropathic pain because the treatment for both groups was much the same. However, with the recent availability of the gabapentinoid membrane stabilising-type drugs – that is, gabapentin and pregabalin – opioids are no longer indicated for neuropathic pain. Other anticonvulsants, such as sodium valproate and carbamazepine, given together with an antidepressant medication, such as amitriptyline, nortriptyline, duloxetine or venlafaxine, had been the mainstay of pharmacological therapy for patients with neuropathic pain (off-label use). However, the side effects

and poor overall efficacy of these drugs in the management of patients with neuropathic pain have seen them gradually supplanted by the gabapentinoids.

Unfortunately, it is elderly and immunosuppressed patients who tend to experience neuropathic pain, such as diabetic peripheral neuropathy, postherpetic neuralgia and neuropathies associated with HIV. However, these patients are least able to tolerate the side effects of the anticonvulsants. The gabapentinoid drugs appear to offer better efficacy with a much more acceptable side effect profile. In fact, some of the side effects, such as promoting sleep and anxiolysis, can be positive effects. However, cost is a significant factor, especially as these medications are not listed on the PBS for the treatment of neuropathic pain.

Pain disorders

The management of patients with pain disorders – in the absence of nociceptive or neuropathic pain – does not require the use of opioids or gabapentinoids. Therefore, the prescription of these drugs to patients with pain disorders becomes part of the problem and not the solution. Psychological management is the treatment of choice but, in my experience in managing these patients, outcomes have been poor. However, it is obviously important to identify these patients' pain behaviours, discontinue non-indicated therapy and involve a psychologist, preferably one who has cognitive behavioural therapy (CBT) management skills.

Pain and compensation

The assessment of an injured worker with pain behaviour can be challenging and the presence of secondary gains should be taken into account. While not being malingeringophobic, GPs should be aware that pain disorders in injured workers are often at a subconscious level.

If a worker presents with a history of low back pain related to a work injury and there is little clinical or radiological

support for a physical diagnosis, the use of opioids may only confirm to the patient the seriousness of the complaint. Withdrawing the opioid from the patient will be a major issue and may damage the important doctor–patient relationship. Pain units with a physiotherapy- or CBT-based program provided as an inpatient or outpatient facility are ideally placed to help manage these patients. If the program is outpatient based then local accommodation should be available for patients from remote areas so as not to disadvantage them.

Management pitfalls Resting when in pain

If you break an arm as a child, you realise that keeping it immobile is not as painful as when the arm is moved. By keeping it immobile (often in plaster), the fracture heals and the arm can once again be moved painlessly. So pain becomes associated with something harmful occurring, which is improved with rest. This is a useful, if simple, algorithm but when applied to chronic pain it is the antithesis of what should be happening.

Healing has long since finished by the time a patient is diagnosed with chronic pain behaviour. However, many patients accept the acute pain model and want to rest the painful part of the body. The part of the body affected and its support structures then become dysfunctional and wasted, making it even more difficult to return to normal function. This is why physiotherapists have an important role in multidisciplinary pain units. Their role is primarily to re-educate patients about why it is important to build up function and activity of a painful part of the body and its supporting structures.

Lesson – do not rest the injured part of the body.

Referred pain

If a part of the body is painful, it would not be unreasonable to assume that the painful area is responsible for the

continued

generation of whatever pain signals are present. Unfortunately for those of us who follow the KISS (keep it simple – stupid) approach, this can be misleading because the phenomenon of convergence, otherwise known as referred pain, exists. Pain signals from visceral structures often share the same neurones as somatic structures in the spinothalamic tract. The area of the cerebral cortex responsible for localising pain assumes, incorrectly, that any signals arriving from the spinothalamic tract originated somatically.

Referred pain is probably a defence mechanism to protect our exposed soma. Therefore, patients with conditions such as renal colic, diaphragmatic pain or angina, as well as many other examples, present with diffuse pain in an area of the body remote from the source of the nociception. Caution should be adopted when making conclusions about the likely cause of pain.

Lesson – do not make assumptions about the likely cause of pain.

The concomitant use of serotonin reuptake inhibitors

The introduction of the sustained selective serotonin reuptake inhibitors (SSRI) was a major breakthrough, particularly in the management of depressive disorders. However, the concomitant use of another

medication, that unknowingly contains a similar constituent, can cause serotonin syndromes, which can be extremely unpleasant for the patient. A common example is the use of tramadol with an SSRI such as fluoxetine. Tramadol is a mixture of two enantiomers – one a very weak opioid drug, the other with serotonin reuptake inhibiting properties among others.

Lesson – when using tramadol be aware of other SSRIs that the patient may be concomitantly prescribed.

The concomitant use of opioid

In the management of chronic nonmalignant pain, various opioid cocktails are sometimes prescribed to patients. Most of the available strong opioids act on mu opioid receptors. If one strong opioid is ineffective then one of two conditions exists:

- the blood level of the opioid (that is, the dose of the opioid) is below the minimum effective concentration
- the pain behaviour is no longer opioid-responsive.

A measurement of the patient's blood opioid level will rapidly identify the reason for ineffective opioid use.

Adding another opioid would, in my opinion, only confuse matters. The use of

an immediate-release opioid for breakthrough pain is indicated when stabilising a patient with pain related to cancer but will cause more problems than it cures in nonmalignant pain.

Lesson – stick to one potent opioid and become familiar with it.

Conclusion

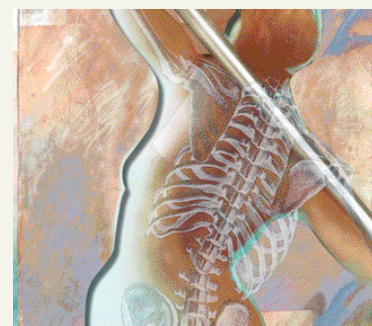
It is clearly the domain of the GP to manage most patients presenting with chronic pain behaviour. Following these basic guides to diagnosis and management should significantly decrease the number of patients who need assessment in pain management units and speed up individual patient management. MT

Reference

1. Access Economics. The high price of pain: the economic impact of persistent pain in Australia. November 2007. Available online at: <http://accesseconomics.com.au/publicationsreports/showreport.php?id=142&searchfor=2007&searchby=year> (accessed November 2009).

Competing interests: None.

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