

Chronic Pain and Opioid Analgesic Use

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August 23, 2020

Abstract

Opioids are often ineffective for managing chronic non-malignant pain. If prescribed, this should be as part of an opioid trial with clear aims of therapy, tapering/stopping if it is ineffective, or if it is causing adverse effects. Clinical guidance is available but there are many gaps in the evidence.

Key Clinical Message

Relationship-based medical care is essential in good management of chronic pain. However, there is significant time pressure and insufficient resources and guidelines for GPs to assess and manage the large number of patients with chronic pain.

Introduction

Opioid analgesics are commonly prescribed to relieve pain. They range in strength from weak opioids, for example codeine, which is found in the most commonly prescribed opioid preparation co-codamol (a combination of paracetamol and codeine) to strong opioids such as morphine, fentanyl, and oxycodone. Their important role in the management of acute and terminal cancer pain is well established but their benefits have been increasingly challenged in other conditions. In particular, concerns have emerged about their use in chronic non-cancer pain, such as lower back pain, which is estimated to affect 35-51% of adults in the UK¹.

Opioid analgesic prescribing in recent decades in England and many other developed countries has increased and has been described as an ‘opioid epidemic’². Concerns about the use of opioid analgesics in chronic pain relate to the lack of evidence of effectiveness³ and the risk of tolerance, dependence, addiction and side effects, leading to reduced quality of life and increased use of healthcare resources^{1,3}. Here we report the case of a young man who developed chronic pain after a relatively minor injury, we highlight the problematic aspects of his opioid use and we discuss the best available evidence to guide doctors in treating similar cases.

Report

Clinical Details

In August 1996, a 25-year old male injured his left knee and dislocated his left elbow falling approximately 3 metres from a fence in the course of his duty as a police officer. He was seen in A&E, his dislocation was reduced and he was discharged but despite physiotherapy he continued to complain of pain in his left knee. During the following 8 years he saw numerous orthopaedic surgeons, his pain was attributed to several different pathologies including torn menisci, early patella-femoral degeneration, and a torn anterior cruciate ligament. He underwent 6 separate surgical procedures, none of which led to any improvement in his pain and in some cases exacerbated it.

Analgesics

He began taking regular analgesia in 2001. In addition to paracetamol, he was prescribed numerous analgesics over the subsequent few years including celecoxib, codeine, co-dydramol, nefopam and meptazinol all of which were ineffective, and diclofenac, which caused gastrointestinal upset. Gabapentin and tramadol initially provided limited relief, but he gradually increased his use of these medications to high doses over a few months and their effectiveness waned.

In 2005, he was referred to an NHS 6-week pain management program, he was cautioned against further dose increases of all analgesics and advised to reduce his opiates. This intervention helped him realise that opiates had largely been unhelpful for him and had caused significant side effects. He concluded that there would be no complete resolution of his pain with medication alone and he adopted a routine of daily exercise including swimming and treadmill walking, weekly massages and regular Reiki. To avoid further adverse effects from his medications he stopped tramadol and gabapentin abruptly without medical advice and he experienced significant unpleasant withdrawal effects.

He currently uses tramadol 50mg QDS, paracetamol QDS, amitriptyline 25mg nocte, and topical Diclofenac. He has been stable on the same doses of these medications for many years. He does not identify as being dependent on any of his analgesics although he recognises that he has developed some tolerance to tramadol and this is his primary motivation for avoiding further dose increases.

Social History

At the time of the injury, the patient was a police officer working with the South Yorkshire Police. He was single and had no children. The pain he experienced affected his ability to perform his job which led to tension with his employers and then depression/anxiety which exacerbated his pain. His employer provided cognitive behavioural therapy which helped him to cope with his anxiety but despite this he was deemed permanently incapacitated in 2008, and was given a part-time administrative role which led to a pay cut and a loss in self-esteem and job satisfaction. He eventually retired on ill-health grounds in 2014.

Despite having a good relationship with his GPs, he blames them for iatrogenic harm from medication side effects and for not explaining the nature and natural history of chronic pain. He remains in pain which adversely affects his life but with his exercise regimen and support from his GPs, he feels in control.

Discussion

Avoid Opioids If Possible

There is little good quality evidence to support the effectiveness of opioids for chronic pain, most of the published trials lasted no more than 4 months, they excluded high-risk individuals and they did not assess addiction risk⁴. There is no consensus on how opioids compare with alternative pharmacological options such as tricyclic antidepressants, muscle relaxants and NSAIDs in treating musculoskeletal pain, but there is an increasing body of literature surrounding the development of tolerance and pain sensitization caused by endogenous and exogenous opioids, resulting in a decrease of its analgesic effects^{4,5}. Patients may still take opioids despite waning of analgesic effects due to dependence or addiction whereby using opioids helps to relieve withdrawal symptoms⁶.

Alternatives to Opioids

The Centres for Disease Control and Prevention (CDC) recommend the use of non-pharmacological (CBT and exercise therapy) and non-opioid options as first-line treatment for chronic pain⁷. Increasing physical activity is a low-cost intervention with minimal risks which can improve pain levels, improve physical function and reduce work disability. Biopsychosocial interventions such as pain management programmes (PMPs) are aimed at addressing the complexities faced by patients with chronic pain. PMPs are delivered in group settings by an interdisciplinary team working closely with patients⁸. Patients that have undergone a PMP have demonstrated improvements in pain intensity, pain-related beliefs such as catastrophising, mood, and

pain-related disabilities⁸. Live Well with Pain is a free online resource that aims to help patients to self-manage. The online site includes a section called the Opioid Thermometer which is targeted to think about the doses of medication they are taking and serve as a reminder of the harms associated with opioids⁹. There is also a Pain Toolkit that guides patients on how to self-manage their pain⁹.

Practical Steps in Opioid Prescribing

The CDC⁷ and *Opioid Aware*¹⁰ provide guidelines and practical steps in opioid prescribing, describing how to undertake an opioid trial, and how to taper and stop opiates. Both resources highlight the need to establish goals for pain management and emphasise that complete pain relief should not be the goal, but rather reducing pain enough to engage in self-management. Both also recommend keeping a record of adverse effects, dosing, discussions about risks and benefits, and circumstances under which prescribing should cease. Opioid therapy should be discontinued if the benefits are outweighed by the adverse effects. *Opioid Aware* recommends involvement of relevant medical specialties such as mental health and substance abuse if the patient presents with complex needs. Good communication and shared decision-making are essential parts of good care³.

An Opioid Trial

Opioid therapy should only be considered if other multimodal therapies have not yielded adequate improvements in pain and function. Patients should only start an opioid trial if they do not have contraindications for opioid therapy and after a discussion about the potential harms and benefits of opioid therapy³. An opioid trial helps to establish if the patient has a reduction in pain with the use of opioids. Managing side effects and achieving optimal doses can be further explored if opioid therapy is pursued after a trial¹⁰.

Opioid Aware provides some practical steps on how to conduct an opiate trial. A trial should first begin with a discussion with the patient on assessable outcomes such as achieving functional improvements e.g. attending work, exercise and sleep. A trial can last for 1-2 weeks and patients should start on low dose of immediate-release morphine (liquid or tablets). The patient could be advised to explore a range of doses between 5-10mg of morphine. To assess success, a diary should be kept during the trial, with a twice-daily record of outcomes discussed such as pain intensity, activity level and sleep¹⁰.

Tapering and Stopping Strong Opiates

Tapering means reducing doses whilst minimising withdrawal symptoms, often with the aim of complete discontinuation³. Abrupt discontinuation can result in opioid withdrawal symptoms⁵. Consider tapering in the following circumstances: patient preference, no significant improvement in pain and function, on doses [?]50 morphine milligram equivalents (MME) per day without benefit, suspected substance use disorder, overdose, serious adverse events or concerns about dependence⁵. Consider dependence in the following scenarios: long-term use for non-malignant pain, history of psychiatric illnesses or emotional trauma, history of substance misuse, problems with prescriptions (lost prescriptions, early requests, taking higher doses than prescribed), family members are concerned about opioid use, refusal or failure to attend medication reviews, 'doctor shopping' for prescriptions, functional deterioration (e.g. being unable to work) and declining specialist referral to assess the underlying problem³. Before tapering, discuss the rationale and potential benefits with the patient, agree on outcomes and an appropriate time frame and discuss signs and symptoms of withdrawal. The dose should be tapered by 10% weekly or two-weekly³.

Conclusion

There is compelling logic to treating pain with analgesics including using opioids. However, for chronic pain, this logic does not fit with the evidence which shows that opioids are often ineffective and can cause significant harm. Most prescribing for long-term conditions is done by primary care, most consultations about chronic pain are with GPs, they are often difficult consultations⁶, there is significant time pressure and there is a lack of guidance to support GPs⁵. Developing a shared understanding with the patient requires sufficient time to discuss complex ideas, it requires trust, regular follow-up and continuity of care all of which are under threat from a shortage of doctors, growing demand and the prioritisation of access

over continuity. In many areas, specialist services are not easily accessible or are not available at all. In the absence of sufficient resources to meaningfully assess and manage the large number of patients with chronic pain, pharmacological management including opiates is likely to remain the default response, deprescribing is unlikely to be prioritised and the NHS is at risk of a growing opioid epidemic.

Acknowledgements

Published with the written consent of the patient.

Conflict of Interest Richard J. Cooper has received funding for research consultancy from Indivior. No other external funding or competing interests declared by the authors.

Authorship

Michael C. H. Quah: Interviewed the patient and prepared the manuscript. Bethany C. Marney: The patient's General Practitioner and interviewed the patient. Richard J. Cooper: Prepared the manuscript and provided expert opinion. Jon M. Dickson: Supervised, prepared the manuscript and gave final approval for the manuscript.

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