CASE REPORT

Failure to identify or effectively manage prescription opioid dependence acted as a gateway to heroin use—buprenorphine/naloxone treatment and recovery in a surgical patient

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Accepted 28 November 2014

SUMMARY

The prescribing of opioid pain medication has increased markedly in recent years, with strong opioid dispensing increasing 18-fold in Tayside, Scotland since 1995. Despite this, little data is available to quantify the problem of opioid pain medication dependence (OPD) and until recently there was little guidance on best-practice treatment. We report the case of a young mother prescribed dihydrocodeine for postoperative pain relief who became opioid dependent. When her prescription was stopped without support, she briefly used heroin to overcome her withdrawal. After re-exposure to dihydrocodeine following surgery 9 years later and treatment with methadone for dependency, she was transferred to buprenorphine/naloxone. In our clinical experience and in agreement with Department of Health and Royal College of General Practitioner guidance, buprenorphine/naloxone is the preferred opioid substitution treatment for OPD. Our patient remains within her treatment programme and has returned to work on buprenorphine 16 mg/naloxone 4 mg in conjunction with social and psychological support.

BACKGROUND

The prescribing of opioid pain medication has increased markedly in the past 10 years.¹ Between 2004 and 2012, opioid prescriptions in England more than doubled.^{2–3} In Scotland, an epidemiological analysis of community-dispensed prescriptions to the Tayside population between 1995 and 2010 found dispensing of strong opioids increased 18-fold.⁴ The scale of deaths in the USA from largely unintentional overdoses of prescription opioids—exceeding 16 000 in 2010 and more than fivefold greater than those due to heroin—has been deemed an epidemic by the Department of Health and Human Services, who have instigated a major programme to address this growing problem.^{1–5} The problem is not of epidemic proportions in the UK, but deaths from prescription opioid abuse appear to exceed those due to heroin.⁶ In Scotland, the most recent mortality data from The National Drug-Related Deaths Database show that dihydrocodeine/codeine was present in 34% of deaths.⁷

Despite this, insufficient data are available to quantify the problem of opioid pain medication dependence (OPD) in Britain.⁶ Clearly, prescribing decisions on opioids must be carefully made, but the extent of opioid abuse, diversion and related mortality suggests

a failure in some cases to identify problem opioid use and an underutilisation of substitution treatments in this population. We report this case—a young woman originally prescribed opioids for postsurgery pain but for whom pain medication dependence coupled with poor management acted as a gateway to heroin use—to raise awareness of the problem of OPD and highlight how current medication-assisted therapy protocols can provide effective ongoing treatment and recovery.

CASE PRESENTATION

After explorative laparoscopy for renal symptoms, a young working mother in her early 20's was prescribed dihydrocodeine for pain relief in the spring of 2004. Her repeat prescription for six 30 mg tablets daily continued to be filled and in time she began experiencing withdrawal symptoms that could only be overcome with further increased consumption. During the next 4 years, she slowly began taking additional dihydrocodeine on top of her prescribed dose, eventually using twice her prescribed dose with additional illicit tablets bought on the street from a local dealer, which she funded from her personal income. Her use of dihydrocodeine went unchecked; she did not approach her general practitioners (GP) at any point during the 4 years about increasing her prescription or discussing her problem for fear of her prescription being stopped. The escalation continued and eventually the woman experienced a sudden collapse.

On admission to hospital, investigations and a detailed history revealed her opioid dependence. She was released from hospital without a prescription for dihydrocodeine and her GP was informed of her opioid problem, but issues of dependence and withdrawal were not fully discussed with her. She experienced intense withdrawal symptoms and was unable to cope; without effective support, she was unable to work and left her job. She began to buy and smoke heroin and consumed up to three bags daily. When an opportunity to buy illicit prescription opioids arose again, she resumed her previous behaviour of consuming diverted dihydrocodeine. Again, she experienced a sudden collapse and on admission to hospital in the autumn of 2009, was immediately referred to the Alcohol and Drug Service. She was aware of her problem and felt guilty about her dihydrocodeine and heroin use—she had 'just been trying to feel normal'—and was happy with the referral.

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To cite: Conroy S, Hill D. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-207458

Without a prescription and with her deteriorating psychological state, she knew that she would not be able to cope.

TREATMENT

After assessment, she agreed to start opioid substitution treatment (OST) with methadone and was initiated under a standard protocol, with daily supervision of the methadone dose by a pharmacist for the minimum period of the first 3 months of treatment. After a slow dose escalation, she continued to take methadone as a maintenance treatment for 6 months and then was tapered gradually down to zero over a period of 1 year. She remained drug-free, returned to full-time employment at a bar and continued to recover with support from her keyworker.

In 2013, she was admitted to hospital for a routine surgical procedure and was discharged with a prescription for dihydrocodeine for pain management. Able to secure an ongoing repeat prescription for dihydrocodeine from her GP, the patient very rapidly became psychologically dependent (addicted) again. After several months of higher dihydrocodeine consumption than her previous use, she spoke to her keyworker and was again managed onto methadone maintenance treatment. She was unhappy with supervised methadone for a number of reasons—daily exposure to heroin addicts drew her into a social scene and friendships she was uncomfortable with; the stigma of going to the chemist every day was creating issues for her son at school; and she was unable to continue working on her prescribed methadone maintenance dose (60 mg).

Given her history of relapse, her addiction specialist advised that best practice was not to attempt to taper her dose of methadone but to switch OST to buprenorphine/naloxone. She was consented into the high-dose methadone to buprenorphine/naloxone transfer programme. From a dose of 60 mg of methadone, the patient transferred successfully to buprenorphine/naloxone over 1 day as an outpatient using the Lanarkshire protocol previously described.⁸ She was stabilised on a daily dose of 24 mg buprenorphine/6 mg naloxone. At first, the sudden change in mental clarity she experienced unsettled her, but with social and psychological support, she was able to remain within her treatment programme.

OUTCOME AND FOLLOW-UP

Our patient now feels that she is on the road to recovery. She has enrolled in the Scottish Government-supported 'Working Links' scheme and has recently secured part-time employment. She has started to take driving lessons and expresses her happiness at 'feeling normal'. During this time, she has started a slow taper of her dose; she is currently maintained on a daily dose of 16 mg buprenorphine/4 mg naloxone in conjunction with psychosocial support.

DISCUSSION

In our patient, OPD developed at a time when her condition was not well characterised in the UK, and there was a paucity of guidance on how to recognise or deal with prescription opioid dependence. Clearly, her GP did not have an appreciation of the potential severity of her addiction and the likelihood that, with complete withdrawal of her source of opioids, she would source illicit opioids from the streets. Her re-exposure to dihydrocodeine after elective surgery in 2013 is inexplicable and points to a lack of routine risk evaluation of opioid prescribing and the need for ongoing education to reinforce the need to take

careful, detailed histories to establish any previous concern around opioid misuse.

In the USA, the Office of National Drug Control Policy Prescription Drug Abuse Prevention Plan highlights the importance of risk evaluation and mitigation strategies to reduce the risk of misuse of prescription opioids.⁹ Payers, including Medicare and state Medicaid programmes, have the capacity to analyse prescribing patterns to spot the red flags of inappropriate prescribing.¹⁰ Such monitoring approaches are not apparent in the UK, but recent Scottish Intercollegiate Guidelines Network guidelines on the management of pain in the non-specialist setting acknowledge the risk of opioid misuse and recommend careful assessment of pre-existing risk factors for developing opioid misuse before prescribing, and signs of abuse and addiction are sought at re-assessment of patients using strong opioids.¹¹

Our unit has successfully treated many thousands of patients with opioid addiction with methadone. Methadone and buprenorphine can both be suitable substitution treatments depending on factors such as personal addiction history and individual response.¹² Cochrane reviews show that these substitution therapies are more effective than any other type of treatment for opioid dependence, particularly when used in combination with psychosocial interventions.¹³ However, the vast majority of opioid dependence treatment research has assessed heroin-dependent patients receiving methadone within specialised opioid dependence treatment programmes. There is a limited evidence base for methadone, buprenorphine or buprenorphine/naloxone for the OPD group of opioid abusers.

In this case, methadone treatment had been successful previously, but on relapse, our patient's strong personal dislike of methadone and her wish to taper her dose resulted in appropriate switching to buprenorphine/naloxone. The use of a buprenorphine-based substitution treatment is in keeping with the Department of Health (DoH) National Clinical Guidelines on drug misuse and dependence, which recognise buprenorphine as the OST of choice when patients present with dependence on codeine preparations.¹⁴ More recently, the Royal College of General Practitioners (RCGP) factsheets on prescription and over-the-counter medicines misuse and dependence acknowledge that the profile of OPD patients is different from those dependent on illicit drugs, suggesting a different treatment approach is required and recommend buprenorphine/naloxone.^{2 15-17} In Scotland, a recent independent expert review of opioid replacement therapies recognised opioid replacement as an essential treatment with a strong evidence base and made recommendations that substitution therapy is driven by primary care services—specifically GP and community pharmacists.¹⁸

Although the treatment of OPD has a long history in the USA, it is still evolving in the UK. There is no single standard that is currently recognised, so it is even more important that people are aware of the guidance that is available. Care pathways should be consistent with the different profile of OPD patients from those dependent on illicit drugs. In our clinical experience and consistent with the existing guidance, buprenorphine/naloxone is the preferred OST for OPD patients, avoiding the stigma associated with methadone and contact with illicit drug users and providing an opportunity for ongoing recovery within a primary care setting for this distinct subgroup of opioid-dependent persons.

Learning points

- ▶ Strong opioid prescribing has increased and patients with opioid pain medication dependence are becoming more prevalent.
- ▶ Prescription pain medication can be a gateway to 'harder' drugs such as heroin.
- ▶ A detailed history of previous pain medication use must be a component of presurgical assessment.
- ▶ Consistent with guidance from the Department of Health and Royal College of General Practitioners, buprenorphine and particularly the buprenorphine/naloxone preparation, is the preferred opioid replacement treatment for this distinct subgroup of opioid-dependent persons.

Acknowledgements The authors thank Aidan McManus of Edge Medical Communications who provided editorial assistance, which was funded by Reckitt Benckiser Pharmaceuticals.

Contributors SC was responsible for the management of this patient. He acquired and interpreted the data for this work; provided the outline for the draft; commented on all drafts critically for intellectual content; gave final approval for this draft to be submitted; agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. DH helped to interpret the data for this work; commented on the outline and first draft; commented on all drafts critically for intellectual content; gave final approval for this draft to be submitted.

Competing interests SC has received reimbursement for attending symposia and fees for speaking from Reckitt Benckiser Pharmaceuticals. DH has received honoraria for delivering professional development training from Reckitt Benckiser in the field of addiction medicine. He has received an honorarium from Lundbeck for participation in a professional advisory board. He has received travel and support for attending conferences and meetings from Reckitt Benckiser and Schering-Plough.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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