Ultra-rapid opiate detoxification in hospital

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Aims and method To evaluate ultra-rapid opiate detoxification under sedation. Symptom control was analysed in the first 12 hours of detoxification in 20 patients and case notes were examined 12 weeks later for outcome.

Results Good symptom control was achieved, except for restlessness. At 12 weeks 25% patients were abstinent.

Clinical implications While long-term outcome is similar to conventional methadone detoxification, the ultra-rapid technique is safe, more acceptable to patients and more cost-effective.

While we should not discount psychosocial factors underlying opiate dependence, the fear and discomfort of withdrawal symptoms significantly perpetuate the addiction. Any procedure which improves the control of these symptoms is welcome. Over the past two decades naltrexone has been used in conjunction with clonidine to accelerate detoxification (Charney *et al*, 1982). In 1989 Loimer *et al* demonstrated that detoxification could be accelerated even further under general anaesthesia (Loimer *et al*, 1989, 1991) and this is now offered mainly by the private health sector in this country. It is, however, resource-intensive and there are risks associated with general anaesthesia (Seoane *et al*, 1997). Brewer *et al* (1988) reported on a treatment regime using clonidine, naltrexone and diazepam to accelerate detoxification under heavy sedation rather than full general anaesthesia. Subsequently some National Health Service (NHS) services have offered modifications of this regime, but despite the media interest in ultra-rapid opiate detoxification clinical reports remain rare (Pini, 1996; Brewer, 1997). We describe below our results for 20 consecutive patients undergoing ultra-rapid detoxification under sedation on a NHS general psychiatry ward.

Method

Opiate dependent patients were recruited at the Cambridge Drug Dependency Service, and its Community Drug Team and out-patient clinics. Assessment included physical examination, blood tests (full blood count, liver function test, urea and electrolytes), electrocardiogram and a preliminary visit to the ward. Patients with a history of circulatory disorders, epilepsy or serious illness were excluded, but those with mildly abnormal liver function tests and past hepatitis were included. Patients clearly dependent on substances other than opiates were excluded and all patients were asked to avoid benzodiazepine and stimulant use prior to admission.

Detoxification commenced on the second day of admission. A loading dose of 0.2 mg lofexidine, 30 mg diazepam and sometimes 50 mg chlorpromazine given and if the patient was sedated one hour later, 25–50 mg naltrexone was administered. Thereafter the patient was nursed continuously for 12 hours or until symptoms started to abate. Medication was titrated to control these symptoms and within the first 24 hours included diazepam (40–180 mg), lofexidine (0.4–1.6 mg); chlorpromazine (0–300 mg), diclofenac (0–150 mg), intramuscular prochlorperazine (0–37.5 mg) and temazepam (0–40 mg). There was a wide variation in dosages and drugs administered but all patients received diazepam and lofexidine. Medication was tailed off over the next 2–4 days during which time the patient became more active. Discharge took place between the fifth and seventh day of admission. Patients were then prescribed 15–20 mg diazepam at night, reducing over a 2–4 week period. They were encouraged to remain on 50 mg naltrexone daily for at least three months while attending the Drug Dependency Service for counselling and support.

On commencement of detoxification, withdrawal symptoms were rated by nursing staff at 30 to 60 minute intervals and recorded as absent, present or severe. Subjective symptoms such as muscle pains were not rated because of the patient's level of sedation. The aim of treatment was to minimise symptoms and for this analysis two criteria were used to measure the control of symptoms in each patient.

(i) Achievement of symptom control. This criterion was met if a symptom was rated absent in 90% or more observations in the

https://doi.org/10.1192/pb.23.9.544 Published online by Cambridge University Press

first 12 hours of detoxification. Symptoms were rated present or severe in less than 10% observations. This reflected a high level of control of symptoms (see Table 1).

(ii) Failure to control severe symptoms. If a symptom was rated severe in 10% or more observations in the first 12 hours of detoxification it was regarded as poor control (see Table 1).

Results

Despite the high level of sedation all patients experienced marked motor restlessness and the criteria for controlling severe symptoms were not met in 18 patients (92%). This underlines the need for continuous nursing observation throughout the first 12 hours of detoxification. In some cases the mattresses were placed on the floor for fear of the patient rolling out of bed. No patients injured themselves and on occasions gentle restraint was applied.

The control of gastrointestinal symptoms was a key goal as this affected the absorption of oral medication. Two patients experienced severe vomiting but the increased use of chlorpromazine in the detoxification regime improved control. No patients developed extrapyramidal side-effects from neuroleptics and only one patient developed a late hypotensive reaction. Good control of vomiting was achieved in 70% patients. Similarly the control of diarrhoea improved with the use of chlorpromazine, although less successfully. Severe symptoms above the 10% criterion occurred in five patients (20%). No medical complications or significant dehydration occurred, but good control of these symptoms eases nursing care.

Apart from yawning, the other observable withdrawal symptoms were well controlled. Lachrymation and piloerection were less common than perspiration and rhinnorrhoea, but even where severe symptoms exceeded the criterion, it occurred in no more than 10% of patients. Diclofenac was given for muscle cramps but the effectiveness of this intervention was not evaluated because of the subjective nature of the symptom.

Table 1. Number of patients with symptoms rated severe or absent in first 12 hours (n=20)

	Absent in 90–100% of observations	Severe in 10–100% of observations
Restlessness	0	18
Vomiting	14	2
Diarrhoea	11	5
Yawning	0	8
Lachrymation	13	0
Rhinnorhoea	6	2
Perspiration	10	2
Piloerection	14	1

Withdrawal symptoms were at their most intense in the first 12 hours and sedation was high. Some patients showed features of an acute confusional state with disorientation for place and time, hallucations, picking at bedclothes and drifting in an out of lucidity. However, the level of consciousness had improved in all patients after 12 hours and they were then able to converse appropriately with staff between interludes of sleep. Subsequent memory for the events of the first 12 hours was very patchy in all patients.

The inevitability of the detoxification process once initiated meant that all patients completed the regime and were discharged opiate free. One month later 11 patients were still in contact with the service and two had returned to their districts of origin. Three months after detoxification five patients were opiate free (25%), one patient was using intermittently, seven were dependent on opiates and there was no available information on the remaining seven patients. All five drug-free patients were still prescribed oral naltrexone and their status was confirmed through random urine tests and routine history taking during regular clinical contact.

Discussion

Following methadone withdrawal over 21 days in a specialist unit Gossop *et al* (1987) found that 12 out of 50 patients (25%) remained continuously abstinent over the ensuing six months and at final interview half were drug-free. Relapse was most likely to occur within six weeks of discharge. Strang *et al* (1997) showed 23% of patients discharged from a general psychiatric ward were opiate free two months later. Our results were broadly similar although the data were not collected via a research interview but derived from clinical notes. The advantages of ultra-rapid over conventional opiate detoxification do not lie in the long-term outcome but in its immediate efficacy and acceptability to patients. Methadone detoxification takes three to four weeks and restless patients often leave before completion. With the current pressure on hospital beds many addicts are not even offered the opportunity of in-patient treatment. Ultra-rapid detoxification shortens the admission considerably and completion of withdrawal is almost guaranteed. A far greater proportion of the time spent on the ward is also devoted to supporting the patient in a drug free state. The long half-life of methadone often means patients undergoing conventional methadone withdrawal leave hospital relatively early with the risk of relapse

https://doi.org/10.1192/pb.23.9.544 Published online by Cambridge University Press

greatest during this initial abstinence. Finally we calculate that the cost of the ultra-rapid detoxification is less than a third than that of a conventional admission.

The attraction of this treatment to addicts lies in its rapidity and the minimisation of symptoms. It is not simply due to the amnesiac effects of heavy sedation and our results demonstrate that objectively observed withdrawal symptoms are reduced. Indeed, since the introduction of this treatment opiate addicts not known to the service have come forward. It is not the 'magic cure' of media hype but rather a useful addition to the existing range of treatments.

References

BREWER, C., REZAE, H. & BAILEY, C. (1988) Opioid withdrawal and naltrexone induction in 48–72 hours with minimal drop-out, using a modification of the naltrexone–clonidine technique. *British Journal of Psychiatry*, **153**, 340–343.

BREWER, C. (1997) Ultra rapid, antagonist-precipitated opiate detoxification under anaesthesia or sedation. *Addiction Biology*, **2**, 291–302.

CHARNEY, D., RIORDAN, C., KLEBER, H., *et al* (1982) Clonidine and naltrexone, a safe, effective and rapid treatment of abrupt withdrawal from methadone. *Archives of General Psychiatry*, **39**, 1327–1332.

GOSSOP, M., GREEN, L., PHILLIPS, G., *et al* (1987) What happens to opiate addicts immediately after treatment – a prospective follow-up study. *British Medical Journal*, **294**, 1377–1380.

LOIMER, N., SCHMID, R., PRESSLICH, O., *et al* (1989) Continuous naltrexone administration suppresses opiate withdrawal symptoms in human opiate addicts during detoxification treatment. *Journal of Psychiatric Research*, **23**, 81–86.

—, LENZ, K., SCHMID, R., *et al* (1991) Technique for greatly shortening the transition from Methadone to Naltrexone maintenance of patients addicted to opiates. *American Journal Psychiatry*, **148**, 933–935.

PINI, P. (1996) Controversial approaches to heroin addiction aired in London. *Lancet*, **348**, 743.

SEOANE, A., CARRASCO, G., CABRE, L., *et al* (1997) Efficacy and safety of two new methods of rapid intravenous detoxification in heroin addicts previously treated without success. *British Journal of Psychiatry*, **171**, 340–345.

STRANG, J., MARKS, I., DAWE, S., *et al* (1997) Type of hospital setting and treatment outcome with heroin addicts. Results from randomised trial. *British Journal of Psychiatry*, **171**, 335–339.

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