

The clinical utility of lofexidine versus diazepam in reducing the craving in patients undergoing opioid detoxification

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BACKGROUND

Opioid dependence is a challenging health and social concern. The first step in the treatment process is detoxification, which is accompanied by often unbearable withdrawal symptoms and intense craving which makes the process cumbersome to manage. Substitution therapies are routinely used to ease the unpleasant symptoms, however, they are not available in Singapore due to the government policy and regulations. Lofexidine, which is an alpha2-adrenergic agonist, has been shown to be effective in managing opioid withdrawal.¹ Here we explore the clinical utility of lofexidine when compared to diazepam in reducing craving among subjects undergoing inpatient detoxification.

METHOD

The study was carried out in the inpatient settings of National addiction Management Services (NAMS), which is the sole national provider for addiction treatment in Singapore.

A randomised double blind, double dummy, placebo controlled trial (CTC1100375) was designed which recruited 111 patients (56 in lofexidine; 55 in diazepam). All the inpatients who were recruited in the study received either diazepam or lofexidine for 10 days together with the standard psychosocial support. A self-reported visual analogue scale (VAS) was employed as a measure of the craving. Intention to treat (ITT) analysis was performed.

RESULTS

Table 1: Demographics of participants

	Lofexidine	Diazepam
Gender n (%)		
Male	49 (87.5)	53 (96.4)
Female	6 (10.7)	2 (3.6)
Race n (%)		
Chinese	17 (30.4)	17 (30.9)
Malay	28 (50.0)	31 (56.4)
Indian	7 (12.5)	7 (12.7)
Others	3 (5.4)	0
Age (mean, SD)	44.0 (8.58)	44.3 (6.83)

No significant differences in demographic characteristics were observed between the groups.

There was an overall reduction in craving in the lofexidine group through out the assessment period when compared to the diazepam, however, a two sample *t test* did not show a statistically significant difference ($p > 0.05$) between the two groups.

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Table 2: Summary of VAS scores for opiate craving

	Lofexidine Mean (SD)	Diazepam Mean (SD)
Baseline	2.8 (3.55)	2.8 (3.09)
Day 2	4.3 (3.20)	5.0 (3.67)
Day 3	3.7 (3.26)	4.2 (3.54)
Day 4	2.6 (2.85)	3.2 (3.08)
Day 5	2.3 (2.58)	2.9 (3.16)
Day 6	2.0 (2.65)	2.3 (3.01)
Day 7	1.6 (2.58)	2.1 (3.00)
Day 8	1.4 (2.37)	2.1 (3.05)
Day 9	1.5 (2.37)	1.9 (3.01)
Day 10	1.4 (2.37)	1.8 (3.02)
Day 11	1.3 (2.37)	1.9 (3.01)
Day 12	1.4 (2.42)	1.8 (3.02)
Day 13	1.3 (2.37)	1.8 (3.02)
Day 14	1.4 (2.41)	1.9 (3.01)

On day 3 and 4 when the symptoms are at the peak, the mean differences in the scores were -0.48 (95% CI: -0.92, -0.04) and -0.66 (95% CI: -1.05, -0.28), respectively.

CONCLUSIONS

Although the values are not statistically significant, the reduction in craving observed in the lofexidine group can be clinically relevant as diazepam has addictive properties. Lofexidine is a non-addictive alternative to the diazepam with better clinical utility and thus is a good candidate for assisted detoxifications where substituted therapies are unavailable.

CONFLICT OF INTEREST

The authors declare that there are no conflict of interests.

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