

Tramadol vs. Buprenorphine for the Treatment of Opioid Dependence: A Comparative Study

buprenorphine and 100 mg of tramadol which as gradually increased as per patient's withdrawal symptoms.

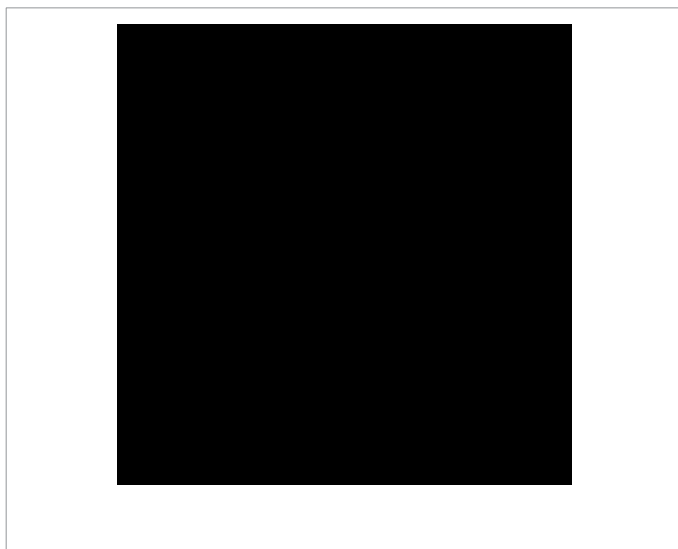
- Flexible dosing schedule as followed and dose as titrated on the basis of objective and subjective evaluation using Clinical Opiate Withdrawal Scale (COWS) [11] and Clinical Global Impression (CGI) [12].
- Patients were detoxified in inpatient setting and followed with intensive outpatient treatment. Measurements using COWS and CGI were taken at every alternate week and patients were followed up for 12 weeks.

Results

In the mild group (1-10 mg methadone equivalent): out of 15 patients in each category, 8(53.33%) patients achieved early full remission and 5(33.33%) early partial remission in tramadol group and 36%, 46.66% respectively in the buprenorphine group. Moderate (10-20mg methadone equivalent): out of 14 patients in the tramadol group: early full remission was achieved by 5 (35.71) and partial remission by 6 (42.85%) summed up to 78.57%, whereas in buprenorphine group, 3 (21.42%) patients achieved full remission and 5(35.71%) partial remission amounting to total of 57.14% remission. Difference in the total as due to high relapse rate in buprenorphine group after detoxification i.e. 28.57%. Severe (>20 mg methadone) only 16.6% of patients could be sustained in tramadol group whereas 66.66% patients were maintained on buprenorphine at the end of 12 weeks. Tramadol-treated patients had higher average withdrawal symptoms when compared to the buprenorphine group and a greater reduction in withdrawal symptoms over time. In the tramadol group, average COWS maximum at week 1 was 36 and in buprenorphine it was 24 (p=0.001) whereas at week 12 COWS maximum was 3 in tramadol and 8 in buprenorphine (p<0.05) (Figure 1) showing gradual reduction of withdrawal symptoms in tramadol group and no increase in withdrawal symptoms after drug cessation as compared to sudden decline in withdrawal symptoms in buprenorphine group which as followed by higher withdrawal symptoms on tapering the dose or after cessation of the drug (Figures 2 and 3) (Table 1).

Conclusion

- Tramadol appears to have comparable clinical efficacy as buprenorphine for treatment of patients with low levels of opioid dependence [5,13]



- Patients with moderate level of dependence; tramadol has more efficacy in detoxification and relapse prevention with minimum abuse potential.
- Patients with severe and persistent form of addiction are more likely to have co-occurring psychiatric morbidity and typically require long term comprehensive treatment and in such patient's induction and maintenance on buprenorphine may be more effective than detoxification for engaging and retaining patients in Comprehensive Outpatient addiction treatment.
- Detoxification with flexible dose schedule and tailoring the

treatment according to individual has better outcomes as compared to fixed dose rapid or ultra-rapid detoxification [14].

Summary /Discussion

- Tramadol has good efficacy [5,6,13] in detoxification and relapse prevention in patients with moderate level of opioid dependence as compared to buprenorphine [15].
- Whereas Buprenorphine is better for maintenance treatment and is of higher clinical utility in severe level of opioid dependence where maintenance therapy is required [10,12].
- These findings, if reproduced in larger studies with stronger research designs, have potential great implications for the management of opioid withdrawal in both the inpatient and outpatient setting.

References

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