

July 30-31, 2018
Amsterdam, NetherlandsJ Org Inorg Chem 2018, Volume 4
DOI: 10.21767/2472-1123-C3-009

ORAL NALTREXONE AND EFFECTIVE VENTILATION IN ACUTE METHADONE OVERDOSE

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Context & Aim: Respiratory depression or delayed and recurrent respiratory arrest is the major complication of methadone (MTD) toxicity. We aimed to evaluate the efficacy of naltrexone (NTX) in maintaining adequate ventilation and to prevention of delayed apnea.

Materials & Methods: In a double blind randomized clinical trail, a total of 60 non-opioid dependent patients with diagnosis of acute MTD toxicity at a poison center were evaluated. 30 patients in control group received placebo and 30 in intervention group received 50 mg NTX.

Results: Apnea or bradypnea (RR: 12/min) was detected in 9.3% and 11 20.4% of patients, respectively. All of these patients were belongs to patients in control. The incidence of respiratory depression in patients who received NTX significantly was lower than that did not ($p=0.02$). Respiratory depression occurred in 59.2% of patients in the placebo and at none of the patients in NTX group. The hospital stay in patients who received NTX was significantly lower than control group.

Conclusion: Administration of single 50 mg dose of NTX can prevent delayed or recurrent apnea in acute MTD toxicity, especially in children.

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Outcome	Naltrexone n = 27	Placebo n = 27	p value
Bradypnea (RR<12)	0 (0.0%)	11 (40.7%)	<0.01*
Apnea	0 (0.0%)	5 (18.5%)	0.02*
Respiratory acidosis+	1 (3.7%)	7 (25.9%)	0.05**
Hypercapnia+	1 (3.7%)	7 (25.9%)	0.05**
Hypoxia+	1 (3.7%)	8 (29.6%)	0.02**
Need for refer to ICU	0 (0.0%)	14 (51.9%)	<0.01*
Hospital staying (hrs)	26 ± 17 20 (14 to 96)	38 ± 21 32 (12 to 96)	0.009 ‡