CLONIDINE IN OPIATE DETOXIFICATION

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Detoxification, the initial step in the treatment of opiate dependence (Freedman, 1980) has been facing difficulties in our country as the widely used drug methadone is not available. Earlier practices were either abrupt withdrawal or gradual tapering of the dose of the opiate to which the individual was dependent. Recently clonidine has been used with success for detoxification and treatment of opiate withdrawal symptoms (Gold et al., 1978; Washton and Resnick, 1980; Channabasavanna and Subramanya, 1981). Clonidine acts through inhibiting the norepinephrinergic system by a presynaptic feedback mechanism (Hamburg and Fallman, 1981). Studies comparing the efficacy of clonidine with other methods of opiate detoxification are rather few (Washton and Resnick, 1980). The present study was conducted to compare the efficacy of a clonidine with the earlier methods of detoxification, namely abrupt withdrawal and gradual tapering.

MATERIAL AND METHODS

Patient sample comprised of nineteen male patients of age group 21-53 years, who met the DSM III criteria (American Psychiatric Association, 1980) for opiate dependence. All the nineteen patients were dependent on parental opiates (morphine or pethidine). Ten patients received clonidine (100 mg) tablets from the day of admission. The mean interval between the last dose of the opiate and the initiation of clonidine treatment was 28 hours (SD = 6.3). The dosage was rapidly stepped up to the needs of a given patient (from three tablets per day to a maximum of nine tablets per day, within two to three days). Blood pressure was recorded at eight hourly intervals in these patients. Clonidine was tapered off within two to three days after the patients were symptom free for one week. The severity of withdrawal symptoms at the time of admission was graded using a rating scale (Blanchly, 1966). For a control group, case charts of nine patients who were detoxified either by abrupt withdrawal (n=4) or by gradual tapering of the opiate (n=5) were selected. The information available in all these nine charts was complete. Based on the records the severity of the withdrawal symptoms of these patients at the time of admission was also graded similarly (Blanchly, 1966). Patients received tranquillizers and other symptomatic treatment as determined by clinical state. The total amount of opiates they were receiving per day prior to admission was similar in both the clonidine and control group. The severity of withdrawal symptoms at the time of admission were comparable in the two groups. Within the control group there were no statistically significant differences between the abrupt withdrawal group and the gradual tapering-dose group with respect to the severity of withdrawal symptoms at admission, duration of hospital stay and the cost of drugs used per patient. All patients were discharged drug free and symptom free.
efficacy of clonidine was judged by comparing the number of days of hospitalization required for detoxification and the cost of all drugs given to the patients during their hospital stay in the two groups.

RESULTS

Clonidine controlled the non-purposive withdrawal symptoms within two or three days following abrupt opiate withdrawal. However, purposive withdrawal symptoms persisted much longer, i.e., eight to ten days. None of the patients developed new withdrawal symptoms after being started on clonidine. This indicates that clonidine can also effectively prevent the further occurrence of withdrawal symptoms in those who have already manifested. None of the patients while receiving clonidine developed either hypotension, sedation or dryness of mouth as a side effect. Even though on statistical tests the difference in the mean number of days of hospitalization between the two groups did not reach statistical significance, it can be seen from Fig. 1 that patients treated with clonidine tended to get discharged early. The cost of providing treatment with clonidine when compared to the earlier methods was not significantly higher (Fig. 1).

DISCUSSION

Clonidine is a widely used antihypertensive drug with no addictive potential (Lancet, 1980). The safety and efficacy of the drug facilitates detoxification of opiate addicts even at peripheral hospitals without much additional cost and may in fact be done in a shorter period. The findings are of particular importance to the physicians from countries where methadone is not available. We suggest that even where the methadone is available it is worth comparing clonidine with the former drug with respect to its cost effectiveness.

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