RESEARCH REPORT

Buprenorphine abuse: report from India

ARABINDA N. CHOWDHURY, M.D. & SYAMALI CHOWDHURY, M.D.

Department of Psychiatry, Mental Observation Ward, Institute of Postgraduate Medical Education & Research, Calcutta 700025, India

Abstract
Buprenorphine has been stated a drug of low abuse potential and often used therapeutically in the management of opiate addicts. An analysis of 2½ years' experience of opiate addiction cases at a de-addiction clinic revealed its increasing rate of abuse, especially as a substitute for heroin.

Introduction
Buprenorphine has agonist-antagonist properties at the opiate receptors and thus claims a role in the management of opiate addiction.1 Although buprenorphine has been indicated as a therapeutic agent with low abuse potential,2 2½ years' experience at a de-addiction clinic in Calcutta suggests its increasing abusive spread, especially as an alternative to heroin use. In recent years buprenorphine abuse has been reported from New Zealand,3 Australia,4 Germany5 and Britain,6 however, addiction was not reported in India earlier than 1987. Two pharmaceutical companies are presently marketing buprenorphine (injection and tablet) in India and the cost varies from Rs 5 to 7 per injection (0.3 mg/ml) and Rs 1.50 per tablet (0.2 mg) of buprenorphine.

Method
An analysis was carried out on all opiate addicts seen at the De-addiction Clinic, Mental Observation Ward, Department of Psychiatry, Institute of Postgraduate Medical Education & Research, Calcutta from July 1987 to December 1989.

Results
Table 1 shows the distribution of buprenorphine abuse among the cases on an annual basis.

Discussion
In 1987 no buprenorphine abuse was reported. In 1988, out of 498 outpatient opiate addict cases, 24 were of buprenorphine addiction, 4% to IM injection and 0.8% to tablets, with a mean duration of heroin addiction history of 3.5 and 3.8 years, respectively. The mean duration of buprenorphine abuse was 5.3 and 3.3 months, respectively. Out of 20 cases of buprenorphine injection abuse and four cases of tablet addiction, six patients and one patient, respectively, were on buprenorphine alone at the point of contact; and the remainder abused both heroin and buprenorphine. Of those cases, 60% procured buprenorphine by GP prescription.

In 1989, increased numbers of buprenorphine addicts were reported. Out of 285 opiate addicts, 7.4% were of buprenorphine injection and 3.2% were of tablet addiction, with a mean duration of heroin abuse of 3.6 and 2.9 years, respectively. The mean duration of buprenorphine abuse as 5.4 and 5.1 months, respectively. Of the addicts, 52.4 and 33%, respectively, were on buprenorphine alone at the point of contact. In 1989 a therapeutic trial was done for
Table 1. Annual distribution of buprenorphine abuse

<table>
<thead>
<tr>
<th></th>
<th>1987 OPD</th>
<th>1988 OPD</th>
<th>1989 OPD</th>
<th>Indoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>109</td>
<td>463</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>Buprenorphine IM injection</td>
<td>20 (4%)</td>
<td>21 (7.4%)</td>
<td>18 (17.8%)</td>
<td></td>
</tr>
<tr>
<td>Tablet</td>
<td>4 (0.8%)</td>
<td>9 (3.2%)</td>
<td>6 (5.9%)</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pethidine</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Raw opium</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>498</td>
<td>285</td>
<td>101</td>
</tr>
</tbody>
</table>

the detoxification on 101 severely heroin addicted cases (without any history of buprenorphine abuse) with the following schedule: IM injection buprenorphine (0.3 mg)—1 injection three times for 3 days, then tablet buprenorphine (0.2 mg)—1 tablet three times for 3 days, then 1 tablet twice for 3 days and, lastly, 1 tablet once for 3 days, along with other symptomatic medications. Among these patients, 17.8% developed buprenorphine injection and 5.9% tablet addiction. Well after the completion of the treatment programme and discharge from the hospital they constantly visited the hospital and pressed for buprenorphine prescriptions.

Buprenorphine is not difficult to procure from the market and, because of increased heroin adulteration and price, chronic abusers seek buprenorphine as a new mode of addiction. Present cost of ‘one pack’ of street heroin is between Rs 10-15 and in that sense buprenorphine is still cheaper!

References
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