PSYCHIATRIC COMPLICATIONS OF ROHYPNOL ABUSE

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SYNOPSIS

Rohypnol has become a new drug of abuse in the Singapore drug scene. Five cases with psychiatric complications admitted to Woodbrige Hospital are described and the probable aetiology discussed. Its potential danger is emphasized.

INTRODUCTION

FLUNITRAZEPAM (Ro 5-4200) popularly known as 'Rohypnol' or just 'Roche 2' is a new member of the benzodiazepines. Its pharmacological profile includes sedative, anticonvulsant and central muscle relaxant effects. During the last two years it had been widely prescribed knowningly or unknowningly as a drug substitution for heroin addicts who complained of symptoms. Its popularity could also be attributed to the "kicks" derived and absence of detection in the urine.

In the last 12 months there was a significant number of cases of Rohypnol abuse with psychiatric complications being admitted to Woodbridge Hospital for observation and treatment. Reflecting the trend of abuse Rohypnol was in fact gazetted on 27.1.78 as a controlled drug. Five cases are selected here describing the clinical presentations following Rohypnol abuse.

CASE REPORTS

Case 1

M.T. a 19 year old National Serviceman, took 3 Rohypnol tablets on 28.12.77 for "kicks". The same evening he chased his father with a parang but was restrained by his family. The following morning he beat up his brother before returning to camp. In camp he was noted to behave abnormally and aggressively and was subsequently admitted to Woodbridge Hospital for observation.

On admission he was unkempt, confused and disorientated. Paraldehyde injection was given to control his violent

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behaviour. The next day he was virtually symptom free and was able to relate, in general, events leading to his admission. However there was impairment of his memory function.

From history given, M.T. had poor school and work records. While in the army he was arrested for taking heroin and was rehabilitated by the SAF Drug Rehabilitation Unit. After release from D.R.U. he reported regularly for urine tests. About a month before admission he turned to Rohypnol for "kicks", taking an average of 2 to 3 tablets each time. He himself claimed that he "became violent" as a result of taking Rohypnol.

He was discharged well after 3 days hospitalization but continued to abuse Rohypnol though staying away from all other drugs.

Six weeks later he had a psychotic attack of queer behaviour, talking and laughing to himself and wanting to kill himself. However when he was brought to see the medical officer on duty in Woodbridge Hospital he had apparently recovered. He disclosed that earlier in the day he had taken 3 Rohypnol tablets and thereafter he could not remember what had happened. He was not admitted as it was not indicated.

CASE 2

H., a 18 year old Malay confectionery worker, was admitted to SGH for cutting his left wrist with a razor blade during an acute episode of violent behaviour. He had been taking 2 to 3 Rohypnol tablets nightly for 2 weeks because of insomnia. Despite sedation, he continued to behave aggressively in the ward and was subsequently referred to Woodbridge Hospital for further management.

He gave a history of hearing his deceased father calling him to cut his wrist. However, he was unable to elaborate further as he was confused, disorientated and had difficulty in recalling events chronologically. The following day, all his symptoms cleared up. No abnormal mental function was detected except for memory impairment.

Fifth in a family of 7 siblings, he left school at an early age to work. At the time of admission, he was working in a confectionery where he lived in as he had to get up at 4 am. He returned home only twice a week. His developmental background and premorbid personality were unremarkable. Except for Rohypnol, he had never tried any other illicit drug.

CASE 3

G.K.C., a 29 year old Chinese construction worker, was found lying in the middle of the road at 4 am on 3.5.78 because he wanted to get killed. He was brought to WH by the police on "suspicion of insanity". He was unkempt in appearance and showed signs of auditory hallucination, confusion and disorientation. He was irrelevant in his answers and mumbled to himself as well. In the ward he suddenly turned violent and assaulted the staff. The next day all the above symptoms disappeared and he became rational. Memory function was however impaired and retrograde amnesia was noted. he gave a history of having taken 2 Rohypnol tablets daily for the past few months. He denied taking heroin, but admitted having taken opium, the last time being 2 years ago. Since then he had frequent cravings for the drug with insomnia. He resorted to Rohypnol to control these symptoms.

There was nothing significant in his past history.

CASE 4

T.R.S., a 21 year Chinese male, was married with a one year old son. He was an ex-heroin addict rehabilitated in 1976 and gave up heroin about 6 months before admission. Three months later his wife left him following frequent quarrels and he began to take Rohypnol 4 to 5 tablets each time thrice a week. He was often noted by family to be in a "drunken state". On the night before admission he suddenly turned violent, assaultive and suicidal. He was reported to talk nonsense, talking and laughing to himself and claiming that he heard female voices telling him that his brother was stabbed by others. Saying that god wanted to take his life, he carried his son out of the flat and wanted to throw himself and his son down from the 2nd storey. He was however checked and brought to Woodbridge Hospital just after midnight on 6.2.78.

On admission he was confused, disorientated and unable to remember what had happened to him. The following day he recovered and was well except for residual memory impairment. Apart from his heroin abuse his past history was unremarkable.

CASE 5

W.B.Y. a Chinese male aged 23 was single and unemployed. He was admitted to Woodbridge Hospital on 25.6.78 because of suicidal tendency. He had been taking Rohypnol for insomnia for about 3 months and prior to this he had been taking heroin. Two weeks before his admission his girl friend left him. He became depressed and restless. Subsequently he refused to eat and would bang his head against the wall. He also wanted to stab himself and jump down from the building. The night before his admission he took 7 tablets of Rohypnol and became suicidal and unmanageable at home.

On admission he was able to give a fair account of himself but did not give the date correctly. Otherwise there was no overt psychotic features. In the ward he became aggressive and tried to stab a fellow patient with a broken plastic bath dipper. Subsequent reviews showed that he did not know why he was in hospital nor when he was admitted. He denied that he had suicidal intention and in fact did not remember what had happened after taking the tablets. He was also unable to remember the doctor who reviewed him regularly till the 5th day when he was discharged.

His family appeared to be indulgent and he was somewhat aimless.

DISCUSSION

For some time the authors have been struck by the similar characteristics of patients admitted to Woodbridge Hospital with a history of Rohypnol abuse. This clinical impression is shared by other colleagues in the hospital as well as in the Drug Rehabilitation Unit (personal communication). The five cases reported here are selected because they are not complicated by underlying formal psychiatric illnesses nor by simultaneous abuse of other known illicit drugs.

The typical history was that the patient went to his doctor with complaints of insomnia or drug withdrawal symptoms or even with direct request for "Roche 2". After taking the prescribed dose, tolerance developed and more tablets were required. The need to take more tablets was further aggravated by a prevailing depressive mood. Finally the patient was brought to psychiatric attention when he turned violent, aggressive or suicidal.

The outstanding features common to all the five cases were suicidal and violent behaviour, confusion with disorientation and inability to recall the relevant events. In addition cases 2, 3 and 4 had auditory hallucination, the content of which was homicidal in nature that led to suicidal behaviour.

Chiu et al (1976) reported consistent memory impairment in all his 80 anaesthetised patients using intravenous Rohypnol as induction agent in standard doses of 2 mg, 3 mg and 4 mg. Even in patients who failed to become unconscious there were lapses in their memories of events in the operative and post operative periods.

The question that needs to be answered is whether the psychiatric complication is a result of Rohypnol overdose or withdrawal. So far information on Rohypnol toxicity in man is lacking and what is available is unhelpful. It is probable that Rohypnol abuse is uncommon among drug addicts in Western countries. Teo et al (1978) have shown that the Singapore drug addicts have characteristics and abuse patterns that were different from their ounterparts in U.S. or U.K.

Cases 1 and 5 were able to attribute their disturbed mental states to Rohypnol overdose. Memory impairment was a constant feature noted by Chiu et al and occurred as a direct result of intravenous flunitrazapam injection. Although not all our patients were able to recollect events chronologically they were able to say that taking Rohypnol rather than its withdrawal caused them to be "unaware of" or "can't remember" or "don't know" what happened subsequently. These findings seem to suggest that the psychiatric complications described were due to Rohypnol overdose. This view is shared by the medical officer in charge of Drug Rehabilitation Unit who finds great difficulty in controlling the violent and aggressive behaviour from Rohypnol overdose.

The possibility of a withdrawal phenomenon has to be considered. Drug suppression of REM sleep with subsequent rebound on withdrawal resulting in insomnia, nightmares and delirious states has been documented. (Oswald and Priest 1965; Oswald, Evans and Lewis 1969). Though the cases described did have features suggestive of a delirious withdrawal state, the rapid resolution was atypical. Besides, visual hallucination which is commonly found in withdrawal states was absent in all our Rohypnol cases.

Motis and Altier (1973) studied the effect of flunitrazepam on the sleep cycles of normal subjects using 2 mg oral dose and found a decrease of REM sleep time but never a suppression. The decrease was in the smaller number of REM periods rather than in their mean duration. There was also a shift of REM sleep towards the latter two third of the night. In another study Montis et al (1971) noted a striking fact that higher doses of flunitrazepam (3 mg to 4 mg) given to patients with severe insomnia actually increased both REM and NREM sleep. It seems unlikely therefore that the psychiatric complications were a result of Rohypnol withdrawal.

One explanation for the suicidal and violent behaviour could be that in predisposed persons, their mood stability is greatly diminished. When coupled with clouding of consciousness, perceptions become distorted and the individuals over react. The psychotic episode appeared cathartic as the patients on recovery complained no more of the original symptoms.

Regardless of the aetiological implications and related precipitating factors the danger of Rohypnol abuse cannot be over-emphasized. Although no death has resulted from our cases the suicidal and violent behaviour should give rise to serious concern.

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