

## PETROL-INHALATION DEPENDENCE : A CASE REPORT

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### ABSTRACT

*Ms. M. a 13 years old class VII student presented with one year history of petrol fumes inhalation dependence and six months history of kerosene inhalation dependence. She liked the smell of fumes getting pleasant feeling of well-being and increased confidence. She though fulfilled all the criteria of inhalant dependence. differed from typical cases described in published reports. Like male preponderance and group activity, the prominent features of inhalation dependence were absent in our case.*

*Key Words : Inhalant dependence, petrol, kerosene*

Inhalants are volatile substances that produce psycho-active effects after their fumes are inhaled (Frank, 1995). They are central nervous system (CNS) depressants that produce euphoria, excitement, floating sensation and a sense of heightened power. Some inhalants produce belligerence, assaultiveness and impaired judgement (Wright et al., 1992). Chronic inhalant abuse is associated with high morbidity and mortality (Westermeyer, 1987) hence warrants special attention. A possible withdrawal syndrome of an inhalant dependence begins 24-48 hours after cessation of use and lasts for 2-5 days (DSM-IV, 1994). Watson (1978), and Khautzion & Kenna (1979) in their study found inhalant dependence to be exclusively an adolescent problem while Brozovsky & Winkler (1965) and Epstein & Wieland (1978) have witnessed a widespread use both among adolescents and children. Cohen (1979) describes inhalants as an intoxicant of very young and more often of the males than of the females. Inhalants are the only class of drugs which may be more frequently used in junior high school. Commonly

abused inhalants described are gasoline (petrol), varnish and nail polish remover, aeroplane glue, spray paints, liquid shoe polish etc. Gasoline fume inhalation was first reported in America in 1950's while glue sniffing made its existence felt in 1959 (Watson, 1980) and by the end of 1960, it had involved children and adolescents from the countries as far scattered as Africa, Australia, Canada, Finland, Japan, Mexico, South America and Western Europe. Thereafter numerous reports on inhalation abuse and dependence are available from most parts of the world. India had a relatively smaller share- in the form of petrol dependence (Mahal & Nair, 1978) and kerosene abuse, both by ingestion and inhalation (Das et al., 1992). We present another case of both petrol and kerosene fumes dependence with its psychopathology.

### CASE REPORT

Ms. M, a 13 years old class VII student was brought to the deaddiction clinic of G.B. Pant Hospital, New Delhi by her mother with the complaint that she was inhaling petrol and

kerosine fumes for the last one year and six months respectively. She was first introduced to the petrol smell by her mother while taking petrol for the scooter from a petrol pump. This incidence took place a few days after the patient had failed in her sixth standard examination. Ms. M liked the smell and subsequently started inhaling petrol fumes regularly by soaking a rag in petrol tank from an unattended vehicle. Over a period of time she found that she needed increase in the amount and duration she took to get the same effect. Initially her activity was confined to after the school hours, but gradually she started absenting herself from the school to procure her inhalation material. At times she walked several kilometres on foot and stayed away from home till late night in search of unattended vehicle having petrol. At times she sat at an isolated place inhaling petrol fumes for many hours continuously. She never did so in group or with friends.

In the mean time, the family members came to know about her petrol inhaling behaviour and tried to stop her from doing so. In their effort, the family members had to face a number of hostile and aggressive encounters from the patient resulting in her escaping from the house by jumping 10 feet high wall and going in search of petrol. When the parents became more strict and vigilant and it became increasingly difficult for the patient to go out, she found an alternative in kerosene which was reportedly equally effective and easily available in the house. She started inhaling the same in similar manner as she was inhaling petrol.

Ms. M reported that after inhaling petrol or kerosene fumes she had a pleasant feeling, sense of well-being and increased confidence. She did not feel like eating and had tendency to sleep. At times she also became violent and assaultive after inhalation and such behaviour was largely directed against her parents and siblings. Whenever she was unable to have her regular dose she experienced irritability, nervousness and difficulty in sleeping. These symptoms were experienced a day after the cessation of inhalation, lasting for a couple of

days or till she procured her next dose of inhalant.

Ms. M had normal birth and at four years of age she developed head banging which lasted for a year. When she was six years old, she fell down from the first floor of her house, became unconscious for two hours and had bleeding from the ear. Following head injury, she started having epileptic fits for which she is still being treated with antiepileptic drugs by a neurologist. She is youngest of five siblings with poor interpersonal relation with them as well as with her parents. She comes from a middle socio-economic urban tee-totaller family. In the school, she is said to be an average student with history of one failure each in class four and class six with wandering tendency right from her childhood. She prefers to stay away from the house in the company of unfamiliar people, both males and females.

On examination, most striking feature of her mental state was the preoccupation with procuring petrol or kerosene. She was irritable and wanted to go out of the room. There was no perceptual anomaly or thought disorder. Her cognitive functions were intact. She perceived her addictive behaviour to be a problem, however she was not interested in any kind of therapeutic intervention. EEG and CT scan done by the neurology department were within normal limits.

### DISCUSSION

Inhalant abuse/dependence is described as a peer oriented and peer perpetuated (Cohen, 1979) and male preponderances activity (Evans & Raistrick, 1987) is absent in our case. We report a single case without group activity and with inhalation as the only mode of abuse. Unsuccessful and unrewarding school experience as described in the literature (Cohen, 1979) is evident in our case who had temporal relationship between the start of petrol inhalation and her failure in sixth standard. Personality deficiency seemed to be an important factor as reported by Korman (1977).

Youngsters overwhelmed with anxiety, depression or both, borderline or overt schizophrenia and those with character disorders employ inhalants in an effort at self-treatment for their intra-psychic and interpersonal distress (Cohen, 1973). Tendency to wander aimlessly with strangers, poor interpersonal relations with parents and siblings and frequent truancy from school go in favour of findings described in the literature.

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