# Toluene- Inhalation Dependence

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# ABSTRACT

Inhalants are defined as volatile substances which produce psycho-active effects after their fumes are inhaled. Their effects include euphoria, excitement, and sensation of floating and heightened power. Commonly abused inhalants are gasoline (petrol), varnish, nail polish remover, spray paints, liquid shoe polish, aeroplane glue etc. We report a case of toluene dependence.

# INTRODUCTION

Inhalants are defined as volatile substances which produce psycho-active effects after their fumes are inhaled1. Their effects include euphoria, excitement, sensation of floating and heightened power2. The typical withdrawal syndrome begins 24-48 hours after cessation of use and lasts for 2-5 days3. Some researchers4,5 had reported inhalant dependence to be exclusively an adolescent problem whereas others found it also common in children6. Commonly abused inhalants are gasoline (petrol), varnish, nail polish remover, spray paints, liquid shoe polish, aeroplane glue etc. From India, there are only few case reports7,8 of petrol dependence and kerosene abuse. There is no case report of toluene dependence from India.

# CASE REPORT

Mr M, a 24 years old college student was brought to the psychiatry outpatient department by his parents with complaint of toluene abuse for nine months. The patient was apparently well nine months back when he started inhaling diluent (5 to8 bottles/day) available along with white fluid used for removing typed matter. This he started after being told by his close friend who himself was inhaling the same along with other colleagues. Over a period of time, he found that he needed increase in the amount (upto 8-12 bottles/day) and duration to get the same effect. In the college hostel, he was inhaling toluene alone. The family members came to know about his toluene inhaling behaviour and tried to stop him from doing so but they had to face a number of hostile and aggressive encounters from the patient. This had resulted in that the patient had stopped visiting them at the weekends. When the parents became strict and took him out of the hostel, the patient had no choice but to come for treatment.

Mr M reported that after inhaling toluene, he had a pleasant feeling, sense of well-being and increased confidence. There was loss of appetite and he had tremors in hands and headache. He was also avoiding social functions. When the patient was unable to take his regular dose, he showed irritability, nervousness, sad mood, decreased concentration, lethargy and difficulty in sleeping. The symptoms are seen a day after the cessation of inhalation, lasting for a couple of days or till he procured the next dose of inhalant.

There was no past or family history any psychiatric disorder or drug abuse. His developmental and school history was uneventful. He was eldest of three siblings and came from a middle socio-economic status.

Mental state examination showed his preoccupation with thoughts of procuring the inhalant. He was irritable. There was no perceptual or thought disorder. His orientation and memory were intact. The investigations ( X-ray chest, EEG, CT scan head, haemogram, liver and kidney function tests were normal.

# DISCUSSION

Inhalant dependence is described as a peer oriented and peer perpetuated male predominance activity9. This was found in the present case but he was continuing it alone in hostel. Inhalant abuse had been described as a problem of children or adolescents4-6 but the present case was an adult. Personality disorder, poor interpersonal relationship, underlying psychiatric disorder and unsuccessful school experience had been described as important factors in the onset or perpetuation of inhalant abuse9,10 but in the present case, none of these factors were found.

# REFERENCES

1. Frank J, Ayd Jr. Lexicon of Psychiatry, Neurology and Neurosciences. BI Waverly Private Limited, New Delhi, 1995.
2. Wright SP, Potlier A, Taylor J. Tends in death associated with abuse of volatile substances. Br Med J 1992;305:692.
3. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th ed (DSM-IV). American Psychiatric Association, Washington DC,1994.
4. Watson JM. Solvent abuse by children and young adults : a review. Br J Addiction 1980;75:27-36.
5. Khantzian EJ, McKenna GJ. Acute toxic and withdrawal reactions associated with drug use and abuse. Ann Int Med 1979;90:361-72.
6. Epstein MH, Wieland WF. Prevalence survey of inhalant abuse. Int J Addiction 1978;13:271-84.
7. Pahwa M, Baweja A, Gupta V, Jiloha RC. Petrol-inhalation dependence: a case report. Indian J Psychiatry 1998;40:92-4.
8. Das PS, Sharan P, Saxena S. Kerosene abuse by inhalation and ingestion. Am J Psychiatry 1992;149:710.
9. Cohen S. Inhalants. In : Duport R, Goldstein A, O’Donnel J (Eds). Handbook on Drug Abuse. US Government Printing Press, Washington DC,1979.
10. Korman M. Clinical evaluation of psychological factors. In : Sharp CW, Brehin ML (Eds). Review of Inhalants : Euphoria to Dysfunction. US Government Printing Press, Washington DC,1977.