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Camphor addiction: Series of 78 patients

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Abstract:

Presenting series of 78 patients, who have been using camphor based substances (CBS) from more than 5 years in topical and oral forms. All of these patients were dependent on these substances for relieving symptoms of headache, insomnia and even seizures. Patients have symptomatic symptoms on their withdrawal. 6 month withdrawal was 67% with 16% relapse of usage of CBS. Question arises, Does camphor makes the patient dependent? Does camphor results in permanent neural tissue damage

Introduction:

Camphor based substances (CBS) have been freely available in India in various forms. It is over the counter medicine and can be bought even without prescription of a Doctor. However, US FDA has banned Camphor related substances from any medicinal or edible form, due to its addictive properties. In Uttar Pradesh and Bihar province, there have been rampant uses of CBS for its potential addiction forms from topical and oral route both. Here we are presenting series of 78 patients and their clinical presentations, which have been addicted to CBS and presented to Neurology OPD with neurologically related complaints.

Material and methods:

Patients who have been using CBS in various forms with neurological symptoms were included in study.

Following were the inclusion criteria:

Any patient who have been using CBS in either topical or oral form for more than 5 years and more than 3 times a week.

Patients develop withdrawal symptoms in form of anxiety, palpitation, anxiety, restlessness, headache after 24 to 48 hours of non use.

All the other medical and metabolic conditions were ruled out.

All patients were screened for endocrinal and cardiac dysfunction.

Patients having any medical problem, apart from addiction were ruled out.

Results:

Out of total 78 patients addicted to CBS, 71 of them were females and 7 were males. All of them belonged to Eastern Uttar Pradesh (53%) and Bihar (47%). Patients have been taking CBS since last more than 5 years in various forms (Table 1). Oil based CBS were more frequently used for addictive purpose in both topical and nasal route of ingestion. Gel based CBS was frequently used for oral ingestion.

Table 1: Details of patients using camphor for addiction

Demographic details	Total Number of patients (N=78)	Males (7)	Females (71)
Addicted to oil based CBS	71	3	68

Addicted to gel based CBS	7	4	3
Oral ingestion of Gel (Vicks)	4	3	1
Topical application of Gel (Vicks)	3	4	2
Topical Application of oil based CBS	54	3	68
Nasal Ingestion of Oil based CBS	35	3	32

All the 4 patients who were addicted to oral intake of Gel Based CBS (Vicks) were having Generalized Tonic Clonic Seizures since last 2 years (3 year after starting of addiction). Neuroimaging were normal with EEG showing generalized slowing. Patients did not show much improvement with medication and these patients informed that they have to take these gels 2 – 10 grams every day to be seizure free. Later after 3 – 4 years of ingestion patients continued to have seizure even after taking oral Vicks. Patients were asked to stop these CBS, and anti epileptics were used. All the 4 patients were on more than one AED for control of seizures.

Oil based addicted patients had persistent headache, vertigo, flushing, Insomnia which use to subside with application of these oil either topically or nasal ingestion. Patients were advised to refrain from such practices, given analgesics and Amitriptyline. Only 83% chronic users of Oil Based CBS agreed to leave the application of these oils. Out of which continued without the oils but 16% relapsed at the end of 6 months. Those who left such addictive use became symptom free in next 1 – 6 months.

Discussion:

Camphor (Kapur) have been used in sweets, incense repellent, anti Rusk coat on tools, anti microbicidal balls, local anesthetics, vapor based camphor gels (Vicks). Camphor is widely used in Hindu religious ceremonies. Camphor Based substances (CBS) are important part of various pharmacy products. Since these are sold as without medicinal prescription, it have been in Indian Villages and Urban population frequently for the use of Anti Headache, in common cold or even for sleep induction. Authors have reported, for the first time in literature about potential use of Addiction with Camphor Based Substances. In body, it has effects similar to a muscarinic receptor agonist. Camphor is poisonous in large doses. It produces symptoms of irritability, disorientation, lethargy, muscle spasms, vomiting, abdominal cramps, convulsions, and seizures^(2, 3, and 4). In Present study, as we saw that only 67% patients were convinced about non use of these products, rest 33% continued with such practices. Since no study has been in this particular addiction, we may further investigate the CBS related neurotoxicity in future. However, there have been isolated reports of Camphor poisoning resulting in alteration of membrane excitability of axons⁽⁵⁾. In United States, in 1980, the Food and Drug Administration⁽⁶⁾ set a limit of 11% allowable camphor in consumer products, and totally banned products labeled as camphorated oil, camphor oil, camphor liniment, and camphorated liniment (except "white camphor essential oil", which contains no significant amount of camphor). No such limit has been described in our country. In future, may be stricter law will be required for stopping such addiction.

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