

Cloves Use Disorder: A Case

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Dear Editor,

Turkey has a vast herbal flora due to its geography. This fact creates an ecosystem that is very suitable for medical and non-medical use of herbs in our country (1). There are many herbs in the market, which are known to cause psychoactive effects or for which such effects have not yet been identified or which are abused. As a result of the abuse of such herbs, psychotic, stimulating, sedative, euphoric, and anticholinergic effects may occur (2).

Although herbal products have the potential to be abused, may cause a substance use disorder, and have serious side effects, there exist a misperception that such products are safe, legal and organic. Clove is a spice that is obtained from the tree, *Syzygium aromaticum*. Clove is used as spice when grounded, while it can be used by keeping it in the mouth for some time. It keeps the breath fresh and clean. Clove is used widely against foul breath due to its pleasant fragrance. It has an application area as local anesthetic in mild and medium tooth and gum pains because of the effect of the "eugenol" substance inside (3). Furthermore, eugenol has antiviral and antimycotic effects (4-5).

Tropical climate regions are the real habitat of clove. It contains 15-20% volatile substances, 13% tannin,

and 10% fixed oil. Flower buds and flower stems are dried before use. Eugenol obtained from clove is used as antiseptic and analgesic in modern dentistry. It is used by chewing or boiling the seeds in water and drinking its tea (1).

Also, clove is used together with nicotine in cigarettes. Many cigarette users have the misperception that cigarettes with clove are herbal and natural. The topical anesthetic activity of eugenol taken through the respiration track with cigarettes causes numbness in the throat (6).

A 32-year old female patient came to our outpatient unit, stating that she is addicted to the clove she was using and that she wanted to quit this addiction. She started using clove at the age of 30 to quit smoking upon her husband's recommendation. She was using one or two cloves when she first started but the amount of the cloves increased by the time and she started to begin her day by chewing cloves. By chewing cloves when she felt distressed during the day she started to consume approximately 100 mg of cloves per day in the last year. When she used clove, she could sleep better, feel relaxed, and carry out her errands. When she did not use, she had lack of concentration, anxiety, pain throughout the body, and insomnia. She did not use any legal or illegal substances other than tobacco. The

patient, had started smoking at the age of 17 and stated having started to use clove to quit smoking, used both of them at that time. Her uncle had a story of substance abuse. She did not have any particular disorder other than psoriasis. The biochemistry, hemogram, thyroid function were within normal limits. Anxiolytic and antidepressant medication was started in order to mitigate the withdrawal symptoms of the patient.

We did not find any publications on the addictive affect of the clove in our literature search. It is known that clove is widely used because it is easily accessible, cheap and served in restaurants (1). In our case, we

made a diagnosis of clove use disorder because there were withdrawal symptoms such as nervousness, difficulty in concentrating, insomnia, anxiety, and restlessness and the clove amount taken was gradually increased to approximately 100 mg per day, which suggest tolerance. As these products are widely used, healthcare professionals should have knowledge on the possible side effects and hazards of herbal products. Furthermore, when the addictive effect is taken into consideration, more care and attention should be paid to their sale and use. Studies to be made on this issue in the future shall illuminate the addictive effect of clove.

REFERENCES

1. GURSOY OV, GURSOY UK. Herbs used commonly by the people in Anatolia for the treatment of tooth and gum diseases, their usage manner and herbal properties. Cumhuriyet University Faculty of Dentistry Journal 2004;7:64-67. (Turkish)
2. DENNEHY CE, TSOUROUNIS C, MILLER AE. Evaluation of herbal dietary supplements marketed on the Internet for recreational use. Ann Pharmacother 2005;39:1634-1639.
3. GUENETTE SA, HELIE P, BEAUDRY F, VACHON P. Eugenol for anesthesia of African clawed frogs (*Xenopus laevis*). Vet Anaesth Analg 2007;34:164-170.
4. TRAGOOLPUA Y, JATISATIENR A. Anti-herpes simplex virus activities of *Eugenia caryophyllus* (Spreng) Bullock&S.G.Harrison and essential oil, eugenol. Phytoter Res 2007;21:1153-1158.
5. HE M, DU M, FAN M, BIAN Z. In vitro activity of eugenol against *Candida albicans* biofilms. Mycopathologia 2007;163:137-143.
6. AMERICAN ACADEMY OF PEDIATRICS COMMITTEE ON SUBSTANCE ABUSE. Hazards of clove cigarettes. Pediatrics 1991;88:395-356.