

METHODS OF TOBACCO CESSATION: A REVIEW

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ABSTRACT:

Tobacco abuse has significant damaging effects on oral as well as systemic health of the human body. In majority of countries, the basic causes of mortality and morbidity in tobacco consumers are cancers, cardiovascular disease and chronic obstructive pulmonary diseases. According to the survey by the World Health Organization (WHO), India is believed to be home to about 12% of the world's smokers. According to a survey done in 2009, approximately 900,000 people die every year in India due to tobacco abuse. In majority of the cases, oral cavity is usually the first and most widely affected area due to tobacco abuse. Precancerous lesions and conditions such as leukoplakia and erythroplakia are associated with tobacco use. The common method of intervention used in the clinics is the 5A and 5R approach. Pharmacotherapy is the most widely used method for tobacco cessation. Since tobacco is considered to be a major health hazard, it is an important issue which has to be handled by the team of both dentists and oral health care workers.

Keywords: Tobacco abuse, Tobacco cessation, nicotine



INTRODUCTION:

Tobacco cessation is the process of discontinuing tobacco either in form of cigarette smoking or smokeless tobacco. Tobacco contains nicotine, which makes an individual susceptible to addiction^[1], which leads to a prolonged process of quitting. The most basic notion to comprehend when considering the medical management for a disorder is to have a deep understanding of the disease and study the facets that can improve the productiveness and outcome of a treatment. When considering the treatment for tobacco abuse and addiction, there are several important determinants. The foremost determinant is that tobacco reliance is a very strong and substantial process which strongly needs to achieve cessation. The second most common

issue is the apprehension that tobacco cessation treatment is not necessary, which is very commonly seen among addicts and is usually broached as rationalization. The addicts feel that the treatment and withdrawal is itself more damaging than the tobacco itself. Lastly, the tobacco industry plays an elegant role in marketing the tobacco use and thereby leading to abuse and dependence by consumers.

TABLE 1

TECHNIQUES OF TOBACCO CESSATION
● Pharmacotherapy
● Psychosocial approaches
● Acupuncture
● Hypnosis
● Herbs

PHARMACOTHERAPY: Various drugs have been used in the cessation of tobacco use with fair rates of success. The most widely utilized method is the nicotine replacement therapy. Nicotine products like patches and gum are more commonly used than the other products.

Nicotine Replacement Therapy: Nicotine replacement Therapy commonly referred to as NRT increases the odds of tobacco cessation by 60% compared to placebo [2]. NRT products use around one-third of nicotine when compared to cigarettes. The most useful effect is that it reduces the withdrawal symptoms which includes anxiety and restlessness. The ideology behind using NRT products is the utilization of clean nicotine without the addition of any harmful toxins for a very short period of time which helps the patient to cope up with withdrawal symptoms [3-4]. Extensive research has demonstrated that nicotine is not directly responsible for tobacco-associated diseases but it is the chemical associated with the long-term use of tobacco smoke that causes it [3].

The NRT products that are available are:

- Nicotine Patches and Gum
- Lozenge & Mini-Lozenge
- Inhaler
- Sub-Lingual tablet.

Nicotine patches deliver nicotine through the dermal route while the

other nicotine products deliver nicotine through the oral cavity.

It has been reported that a majority of the NRT products cause side effects. The side effects are usually directly proportional to the dosage of the product. Usually the side effects are brought into control by reducing the dosage. A majority of the patients have side effects like nausea, headaches, restlessness and digestive problems. Some patients have reported insomnia, especially with the use of nicotine patch.

Drugs Aiding in Cessation: The most common line of drugs indicated to be aiding in tobacco cessation are the antidepressants. Amongst the majority, the basic drug used is Bupropion Hydrochloride. A placebo trial of bupropion was conducted and the analysis concluded that the effective relative to the use of placebo was about 2.1 (95% confidence interval 1.5-3.0) [5]. The basic effect of bupropion is to elevate the levels of dopamine in the brain. Increase in the levels of dopamine are associated with the use of nicotine, so the use of bupropion mimics the use of nicotine. This mechanism helps to quit tobacco faster relatively than other drugs. Also it helps in maintaining the diet and weight of the patient. Some studies have also suggested that the conjugation of bupropion and nicotine patch is more effective than either of them being used alone [6].

Another important drug very commonly used in the treatment of tobacco abuse

is Clonidine. Clonidine has been widely used in opium and alcohol withdrawal but recent studies suggest its efficacy in tobacco withdrawal as well [7]. Also drug

named nortriptyline can also be used in the tobacco cessation therapy but only as a second line therapy.

PSYCHOLOGICAL APPROACHES TABLE 2 - 5 A's model – for those who are ready to quit tobacco [8-10]

ASK	The most preliminary step is to ask the patient about tobacco use. The doctor's response should be sympathetic and helpful.
ADVICE	Dentist should advise the patient to get rid of tobacco in an authoritative and personalized manner.
ASSESS	The doctor should assess the patient's condition and understanding his willingness to quit tobacco.
ASSIST	Not only medication but constantly assisting the patient in discussions regarding the cessation of tobacco
ARRANGE	Arrange for proper counselling of the patient with the help of properly trained clinicians and team members.

PSYCHOLOGICAL APPROACHES TABLE 3- 5 R's model – for those who are not ready to quit [8-10]

RELEVANCE	Making the patient realize how cessation of tobacco is relevant to his condition and day to day life.
RISKS	The dentist should give the detailed description of the possible negative effects of long term tobacco use.
REWARDS	The patient should be explained about the possible benefits of tobacco cessation. Tobacco cessation will provide a healthy life to the patient improving his economic condition and improving his taste acuity and appetite.
ROADBLOCKS	The clinician should make the people realize that the treatment may have possible roadblocks in terms of withdrawal symptoms which includes depression and weight gain and help him get rid of them.
REPETITION	Majority of the tobacco addicts do not give up in the first attempt. It is the duty of the dentist to motivate the patient to keep motivate the patient.

ACUPUNCTURE:Acupuncture as a treatment option for tobacco cessation has a major role to play during the acute phase of the withdrawal especially when the subject is fighting with cravings and

cantankerousness. However the effective treatment option of acupuncture in chronic phase would be helpful or not was determined by a series of tests. There were a total of about 46 subjects involved who were reportedly healthy at the time of study

and were smoking on an average of 20 cigarettes everyday with minor variations in the number of cigarettes per day. Also the subjects were assigned random test groups and the study was conducted after the stimulation of the anti-smoking acupoints by acupuncture therapy. The study concluded that if the acupuncture therapy is carried out adequately, it may not only reduce the number of cigarettes frequency but may also help subjects to quit smoking altogether. The mode of mechanism suggested that different acupoints had varied effects on cessation of tobacco and they helped by reducing the taste of tobacco [11].

HYPNOSIS: Hypnosis can be defined as a transmuted state of consciousness in which the subject seems to be in a state of tranquil. The utility of clinical hypnosis is not only restricted to physical problems but also co relates to psychological problems. The most basic use of clinical hypnosis is to reduce the pain. Other uses includes successful management of speech disturbances as well weight maintenance. The most common mode of action is usually indulging patient with imaginations of poor outcomes of smoking and asking the patient to feel that the smell of the smoke of a cigarette is as bad as the truck exhaust.

The most favored method for smoking cessation by the mode of hypnosis is Spiegel's method which is based three main ideas:

- The body is poisoned by smoke
- Subjects requires the body to live
- The subject should respect his/her body and do everything possible to protect it

About 59 cases of co-relation between hypnosis and tobacco cessation were studied by Green and Lynn [12]. Experimental Research which included randomized participants and clinical reports which did not include control groups were a part of it. The study failed to show any major difference between hypnotic management and placebo but hypnosis was then concluded to be a supportive treatment for tobacco cessation.

Another study was administered to examine the effect of hypnosis on smoking cessation. Cochrane Reviews are considered to be very detailed highly reliable reviews of the scientific literature. The reviews studied nine researches comparing the hypnosis with controlled conditions. The researches that were study had a six month follow up and they utilized the biochemically validated rates. However unfortunately the reports were highly variable with no definitive outcome. Because of such variability, they were indecisive in showing the effects of hypnotherapy as compared to other treatment options [13].

HERBS:Herbs are plants products which can be used for medicinal purposes which including aiding in tobacco

cessation. The most common effects of this herbs will include a great decline in withdrawal symptoms, relieve strain and agitation, and reduce yearnings. The consumption of herbs could be in various forms, most commonly in the form of tea or tablets. Herbs can also be smoked but it not the most effective method. A strong herb named Lobelia helps to tranquil the mind and mollify the body. It is the most effective herbs to reduce the cravings after nicotine cessation. One of the major effects of the herb Lobelia involves disturbing the gustatory effect of cigarettes [14]. Another herb named Calamus which is known to improvise the zest and stamina during withdrawal along with the proper management of trepidation.

CONCLUSION:

Tobacco cessation is always beneficial to health. The common notion amongst the tobacco abusers is that they might feel more miserable when they discontinue the tobacco, but the current evidence clearly suggests that tobacco cessation will result into a healthier mental and physical health. With the appropriate use of pharmacotherapy such as nicotine replacement therapy, there is a huge chances of successfully quitting. However evidence suggest that a combination of psychotherapy and medication will have a higher chance of success than either of them taken alone.

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