

Diagnosis of Tobacco Related Cancer has Impact on Consumption of Tobacco among Family Members and Friends of Patients

Abstract

Introduction: There is a saying that “cancer cures smoking” as people often quit tobacco after diagnosis of cancer. Very few studies have analyzed the change in tobacco habits of a user after diagnosis of cancer in a relative or friend. **Materials and Methods:** In this cross-sectional study, 161 friends and relatives of 40 patients treated at Tata Memorial Hospital, Mumbai, India, were interviewed. They were given a questionnaire related to their tobacco habits. The results were analyzed statistically using Wilcoxon signed-rank test and Mann–Whitney test using SPSS. **Results:** Of the studied individuals, 114 were friends and 47 were blood relatives. 141 used smokeless tobacco, 18 were smokers, and 2 consumed tobacco in both the forms. The mean frequency of tobacco consumption among the friends and relatives before diagnosis of cancer was 12.24 per day and that at the time of interview was 9.76 per day. 35 persons (21.7%) stopped consumption whereas 19 (11.8%) reduced usage after diagnosis of cancer. The difference in mean consumption at median duration of 174 days is statistically significant ($P = 0.0005$). **Conclusions:** The diagnosis of tobacco-related cancer has significant impact on the tobacco consumption of friends and relatives. The abstinence rate is comparable to that of various tobacco deaddiction therapies in vogue.

Keywords: Addiction behavior, tobacco addiction, tobacco cessation

Introduction

There is a saying that “cancer cures smoking” as people often quit tobacco after diagnosis of cancer. Very few studies have analyzed the change in one’s tobacco habit after diagnosis of cancer in a relative or a friend. We did a study among the kith and kin of our head and neck cancer patients to find out this effect.

Materials and Methods

It is a cross-sectional study where we interviewed 161 individuals related to 40 patients with head and neck cancer, treated at Tata Memorial Hospital, Mumbai, India. All the participants had used tobacco products for a minimum period of 10 years. They were given a simple questionnaire related to their tobacco habits [Table 1]. The results were analyzed using Wilcoxon signed-rank test and Mann–Whitney test using IBM SPSS Statistics for Windows, Version 21.0. (Armonk, NY: IBM Corp.).

Results

Of the 161 participants, 160 were males. The difference between the mean

consumption before and after the diagnosis of cancer was found to be statistically significant ($P = 0.0005$) [Table 1]. However, no individual with an average frequency of use of more than 30 times per day could stop or reduce their habit. The incidence of change in habit among friends was comparable to that of blood relatives of the patient ($P = 0.754$).

Discussion

Tobacco is the most widely used addictive substance. It is the chief avoidable cause of death and the most important public health problem of our times. According to the Global Adult Tobacco Survey 2012, the prevalence of smoked and smokeless tobacco use in India is 13.9% and 25.8%, respectively.^[1] The prevalence of tobacco abuse showed a declining trend in the countries such as Sweden and the USA by the end of the last century.^[2] However, a similar pattern is yet to be observed in developing nations. The individuals in the study belonged to the northern states of India having the maximum incidence of smokeless tobacco-related mortality in the world.

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Table 1: Characteristics of study population, tobacco habit and results

Questions	Results
1. Age	Median - 42.2 years (range 24-69)
2. Relation with patient	Friends - 114 Family members or relatives - 47
3. Form of tobacco used	Smokeless -140 Smoked (beedi*/cigarette) - 19 Both - 2
4. Previous frequency (number of times/day) (before cancer diagnosis)	Mean - 12.24 (SD - 11.29) Median - 10 (range 2-50)
5. Current frequency (number of times/day)	Mean - 9.76 (SD - 12.01) Median - 6 (range 0-50)
6. Change in habit	Stopped - 35 (21.7%) Reduced - 19 (11.8%) No change/ restarted - 107 (66.5%)
7. Duration of abstinence (till date of study)	Mean - 184 days Median - 174 days (range 60-752 days)

*A type of country made cigarette prevalent in rural India.
SD – Standard deviation

According to a study from India, 64.2% of smokers were aware of health hazards of tobacco.^[3] Unlike the majority of tobacco consumers, our study population has come across diagnosis of cancer in a relative or friend and is exposed to the difficulties the patients go through due to the disease and treatment-related morbidity, providing them a unique opportunity to quit. Cancer with its attributed stigma, acute presentation, need for radical treatment with considerable morbidity and financial burden presents the most frightening tobacco-related disease for the patient as well as the relatives. Abstinence rates in our study are comparable to the abstinence rates of various tobacco deaddiction treatment strategies, such as nicotine gums (17.4%), transdermal patches (13.7%), intranasal spray (24%), nicotine inhaler (17%), and sublingual

tablets (17%).^[4] In a similar study conducted at the Regional Cancer Center, Trivandrum, India, the reported abstinence rate was 16.5% at 1 year.^[5] Our study population hail from parts of India with high consumption rates of chewed tobacco. With effective maintenance therapy, these individuals are likely to have sustained freedom from tobacco abuse. A well-designed, larger study is required to give more strength to our finding.

Conclusion

The diagnosis of tobacco related cancer has significant impact on the tobacco consumption of friends and relatives of patients with a comparable abstinence rate to that of various tobacco de-addiction therapies in vogue.

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Conflicts of interest

There are no conflicts of interest.

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