

ANALYSIS OF TOBACCO CONSUMPTION AMONG HOSPITALIZED CARDIAC PATIENTS

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RESEARCH ARTICLE

Abstract

Tobacco consumption represents a public health problem due to the large number of smoking persons, causing multiple disease and deaths. The identification of smokers, especially hospitalized smoking patients, is a priority in health policies, in order to reduce smoking and the associated negative effects on health. The study was carried out in a tertiary hospital, on the cardiology department and outlines the profile of the smoking patient. Thus, tobacco consumption is recorded more frequently in men, the predominant age group is 40-49 years for both sexes. In most patients we find the consumption of classic cigarettes, the number of cigarettes being between 20-29 cigarettes per day. Declaratively, the main reason why they started smoking is the stress, frequently they have associated tobacco consumption with other substances that are harmful for health. A large proportion of patients believe that cardiovascular disease is due to smoking and correctly assess their associated comorbidities. The main condition of hospitalized smoking patients is hypertension, and existing comorbidities are diabetes mellitus and bronchial asthma. It is disturbing that a large part of patients do not know the effects of smoking on their health and do not want to quit smoking.

Keywords: tobacco consumption, smokers, cardiovascular disease, smoking cessation, advice

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INTRODUCTION

Smoking is a very important problem both in Romania and globally due to the multiple diseases caused by it (Ginghină 2007; cdc.gov/tobacco, 2022).

Smoking leads to the death of up to half of its users, producing over 8 million deaths worldwide, of which 7 million are active users and approximately 1.2 million are passive smokers. From the data published by the WHO in 2020, it is estimated that 22.3% of the global population used tobacco, which led the UN member states to approach this problem as a tobacco epidemic and to adopt the Framework Convention on Tobacco Control in 2003 - WHO FCTC (WHO, 2022).

Chronic smoking is considered the most important modifiable risk factor for cardiovascular disease, especially for acute myocardial infarction, where the risk is twice as high in smokers as in nonsmokers. Quitting smoking is the most important risk reduction measure (Banks, 2019; Carter, 2015).

This study represents an analysis of tobacco consumption in patients admitted to the cardiology department of a tertiary hospital.

MATERIAL AND METHOD

A descriptive, observational study was conducted that included a number of 124 smoking patients (96 men and 28 women), admitted to the Cardiology Department of the Oradea County Emergency Clinical Hospital, between April and July 2022. For the patients included in the study, has been carried out anamnesis, hereditary antecedents, physiological personal antecedents, pathological personal antecedents, treatment followed at home, behaviors and living and working conditions. On the second day after admission, questionnaires were distributed to the patients, containing 15 items, with pre-formulated answers, regarding tobacco consumption, as well as the perception of smoking as a cardiovascular risk factor.

RESULTS AND DISCUSSIONS

The analysis by age groups and sex shows a higher proportion of smoking patients in the age group 40-49 years (41.90%) and 50-59 years (38.70%), both in men and women (figures 1).

Table 1 shows the results obtained from the interpretation of the questionnaires. Most

patients, 79.00% men and 62.90% women, smoke classic cigarettes, followed by electronic cigarettes (14.50% men and 8.00% women), and in men we also find cigars, pipes and hookahs. A study carried out among hospitalized patients points out the importance of identifying other types of tobacco products, in addition to smoked products, which would represent a high-risk group due to the multiple use of the products, but also a group that may be susceptible to approach differently the reduction of the harmful effects of tobacco (Pericot-Valverde, 2019).

The number of cigarettes smoked per day is quite high, 43.5% of patients smoke between 20-29 cigarettes per day, with male predominance in all categories. Approximately one-third of patients have been smoking for 6-10 years (29.83%), and 14.5% of hospitalized patients have been smoking for over 20 years. Declaratively 12.09% of patients started smoking for less than 1 year. The age at which the patients started smoking varies quite a lot, predominating the age of 26-29 years (37.90%), followed by 30-39 years (25%). The main reason that determined the start of tobacco consumption is stress (40.30%), then the environment (21.77%), curiosity (17.7%), boredom (12.09%), others (of which family problems and the fear of not being isolated by the group) (8%). Tobacco consumption is often associated with coffee consumption (33.06%), alcohol (24.2%), even various drugs (2.4%). The implementation of policies to reduce smoking and its associated negative health effects, took into account, the possible unanticipated adverse effects of smoking reduction, such as increased use of alcohol or other substances. Studies suggest that reducing tobacco use does not systematically increase other substance use, even among people at high risk of substance use (Gaalema, 2022).

Less than half of the patients believe that the current cardiac pathology is due to smoking (42%), 35.4% do not believe that there is a connection between heart disease and smoking, while 22.5% do not know whether or not tobacco consumption is related to the current pathology. Correlation of patient responses with admission diagnosis shows that 56.45% of patients, both female and male, suffer from essential hypertension. A study conducted by Luehrs in 2021, in which there is a little association between cigarette smoking and changes in blood pressure, points out that the higher pulse observed in consistent smokers

may partly contribute to the higher risk of cardiovascular disease, since the pulse is a predictor of cardiovascular disease risk after middle age. The presence of an acute cardiovascular event, such as myocardial infarction, is very high in those who smoke, even in the absence of other risk factors, thus we find that 29.03% of the patients included in the study have already suffered an acute myocardial infarction.

The analysis of the association of smoking with hospitalizations and death, on myocardial infarction patients shows a different influence according to gender, with women being more strongly affected (Hall, 2022). Also those who reported a myocardial infarction in their life, were more likely to believe that smoking/tobacco consumption causes/worsens the health problem (Gaalema, 2018). Chronic ischemic heart disease with changes occurring on the resting EKG is also common in patients with chronic smoking (30%) (figure 2).

The existence of other conditions apart from cardiovascular disease is recognized by 70.96% of patients. Two men declared that they do not know if they suffer from other diseases, and a total of 36 patients, both men and women, declare that they do not suffer from any other pathology, except for cardiovascular diseases. From the anamnesis and investigations carried out at the time of hospitalization, the vast majority of hospitalized patients (70.97%) also suffer from other diseases, except those of cardiovascular origin. The most common pathology is diabetes (35.48%), followed by bronchial asthma (16.13%), bronchopulmonary cancer (9.67%) and previous stroke (9.67%) (figure 3).

The effects of smoking on health are unknown to 18.54% of patients, 19.35% of patients are not interested in the effects of smoking on health, and 36.29% of patients declare that they do not want to quit smoking (Table 2). The increased proportion of hospitalized patients who do not quit smoking is also highlighted in other studies (Thomas, 2016; Ylioja 2017).

Anti-smoking policies also aim to reduce preventable disabilities. In the hospital these policies are reinforced by additional measures implemented specifically for targeting smoking cessation in a smoke-free care environment (Obieche, 2021). An important role of the hospital, along with providing curative services, is preventive. Tertiary prevention by counseling patients on how to quit smoking, can prevent

complications and prolong the lives of patients (Zoorob, 2021; Finkelstein, 2016; Jiménez Ruiz, 2017).

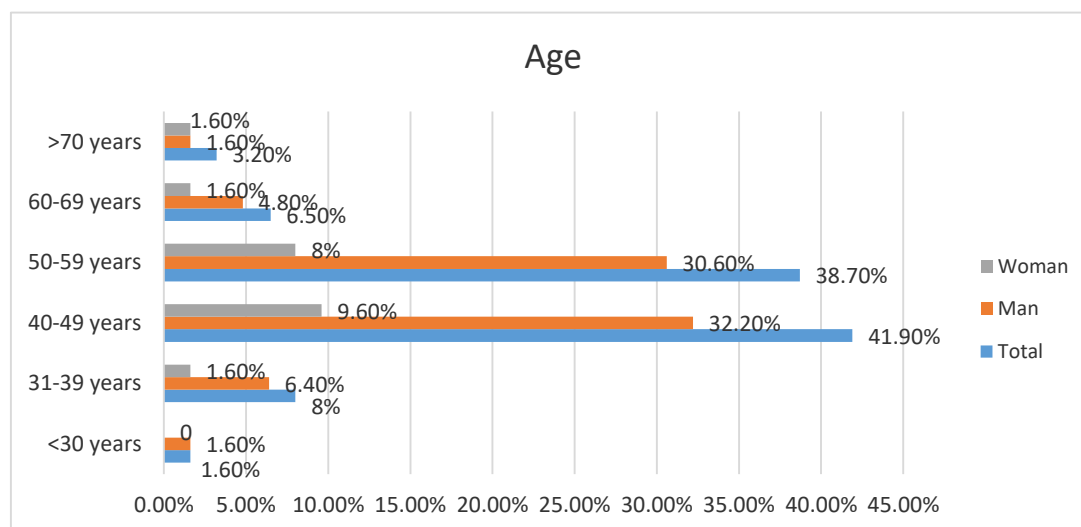


Figure 1 Percentage, by age group, of hospitalized smoking patients

Table 1

The results obtained from the interpretation of the questionnaires

| Cigarettes | Tigarette | Cigar | Pipe | Hookah | Electronic cigarette |
|---|-------------|-------------|---------------|-----------------|----------------------|
| Total | 98 (79.00%) | 4 (3.20%) | 2 (1.60%) | 2 (1.60%) | 18 (14.50%) |
| Man | 78 (62.90%) | 4 (3.20%) | 2 (1.60%) | 2 (1.60%) | 10 (8.00%) |
| Woman | 20 (16.10%) | 0 | 0 | 0 | 8 (6.50%) |
| No. cigarettes /day | 1--5 | 6--10 | 11--19 | 20--29 | >30 |
| Total | 10 (8.00%) | 17 (13.70%) | 23 (18.55%) | 54 (43.50%) | 20 (16.10%) |
| Man | 6 (4.80%) | 12 (9.60%) | 15 (12.09%) | 46 (37.10%) | 17 (13.70%) |
| Woman | 4 (3.20%) | 5 (4.03%) | 8 (6.50%) | 8 (6.50%) | 3 (2.40%) |
| How many years has he been smoking? | <1 year | 2-5 years | 6-10 years | 11-19 years | >20 years |
| Total | 15 (12.09%) | 30 (24.20%) | 37 (29.83%) | 24 (19.30%) | 18 (14.50%) |
| Man | 10 (8.00%) | 20 (16.10%) | 31 (25.00%) | 21 (16.93%) | 14 (11.29%) |
| Woman | 5 (4.03%) | 10 (8.00%) | 6 (4.80%) | 3 (2.40%) | 4 (3.20%) |
| The age at which they started smoking? | <15 years | 16-25 years | 26-29 years | 30-39 years | >40 years |
| Total | 14 (19.30%) | 26 (21.00%) | 47 (37.90%) | 31 (25.00%) | 6 (4.80%) |
| Man | 14 (19.30%) | 20 (16.10%) | 34 (27.40%) | 24 (19.30%) | 4 (3.20%) |
| Woman | 0 | 6 (4.80%) | 13 (10.48%) | 7 (5.65%) | 2 (1.60%) |
| The reason they started smoking? | Stress | Boredom | Entourage | Curiosity | Other |
| Total | 50 (40.30%) | 15 (12.09%) | 27 (21.77%) | 22 (17.70%) | 10 (8.00%) |
| Man | 34 (27.40%) | 11 (8.87%) | 23 (18.55%) | 20 (16.10%) | 8 (6.50%) |
| Woman | 16 (13.00%) | 4 (3.20%) | 4 (3.20%) | 2 (1.60%) | 2 (1.60%) |
| Substances associated with tobacco use | Alcohol | Drugs | Coffee | Just cigarettes | |
| Total | 30 (24.20%) | 3 (2.4%) | 41 (33.06%) | 50 (40.30%) | |
| Man | 20 (16.10%) | 3 (2.4%) | 34 (27.40%) | 39 (31.45%) | |
| Woman | 10 (8.00%) | 0 | 7 (5.65%) | 11 (8.87%) | |
| Current pathology is due to tobacco use (self-assessment) | Yes | Not | I do not know | | |

| | | | | | |
|--|-------------|-------------|----------------------|--|--|
| Total | 52 (42.00%) | 44 (35.40%) | 28 (22.50%) | | |
| Man | 36 (29.00%) | 40 (32.20%) | 20 (16.10%) | | |
| Woman | 16 (13.00%) | 4 (3.20%) | 8 (6.50%) | | |
| Comorbidities (self-assessment) | Yes | Not | I do not know | | |
| Total | 88 (71.00%) | 36 (29.00%) | 2 (1.60%) | | |
| Man | 66 (53.20%) | 30 (24.20%) | 2 (1.60%) | | |
| Woman | 22 (17.70%) | 6 (4.80%) | 0 | | |

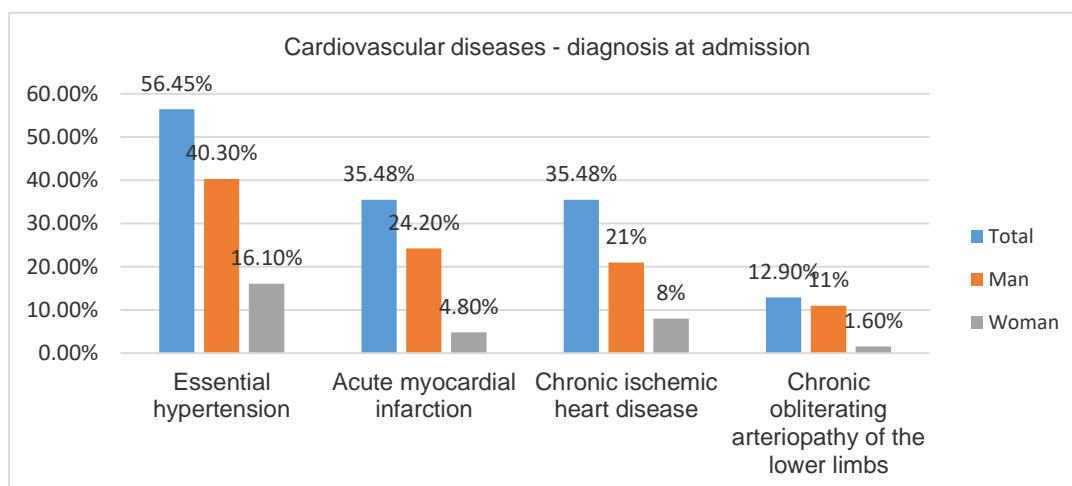
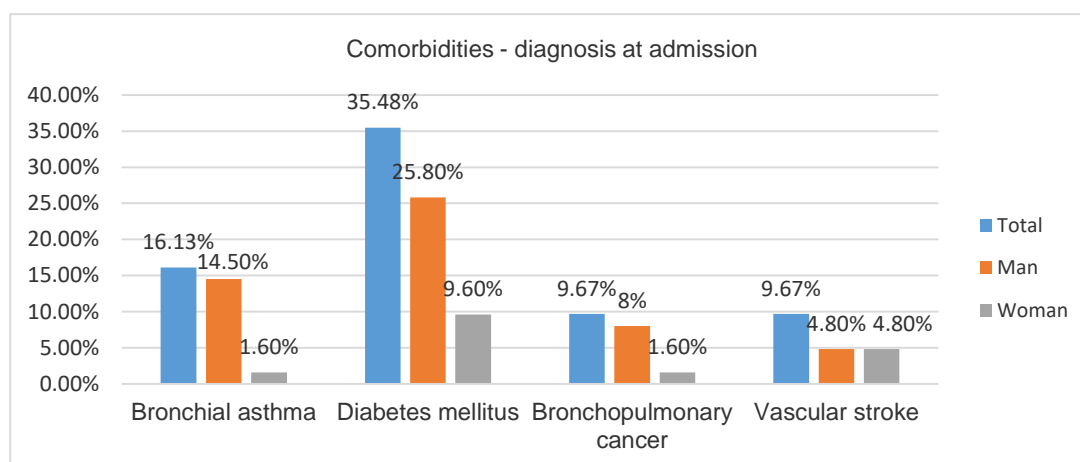


Figure 2 **Diagnosis at hospitalization of smoking patients**



Figures 3 **Comorbidities - diagnosis at admission**

Table 2

| Patients' perception of smoking | | | |
|--|----------------|--------------|--------------|
| Patients' perception of smoking | Bărbați | Femei | Total |
| I don't know the health effects of smoking | 16 (12.90%) | 7 (5.64%) | 23 (18.54%) |
| I don't care about the effects of smoking | 24 (19.35%) | 0 | 24 (19.35%) |
| I don't want to quit smoking | 40 (32.25%) | 5 (4.03%) | 45 (36.29%) |

CONCLUSIONS

Smoking patients with cardiovascular diseases, hospitalized, have the following characteristics: they are predominantly male, age group 40-49 years, they predominantly smoke cigarettes, approximately between 20-29 cigarettes per day, they have been smoking for 6-10 years, they started smoking at the age of 26-29 years. The main reason why they started smoking is stress, frequently associating tobacco consumption with other substances harmful for health, mainly with coffee and alcohol. A large proportion of patients believe that cardiovascular disease is due to smoking and correctly assess their associated comorbidities. The main condition of hospitalized smoking patients is hypertension, and existing comorbidities are diabetes mellitus and bronchial asthma. It is disturbing that a large part of patients do not want to quit smoking. Thus, a careful counseling on quitting smoking is required, in order to prevent the occurrence of complications and increase the quality of life at these patients.

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