Brief Report

The Frequency of Alcoholism in Patients With Advanced Cancer Admitted to an Acute Palliative Care Unit and a Home Care Program

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Abstract

Context. Cancer patients with a history of alcoholism may be problematic. The frequency of alcoholism among patients with advanced cancer has never been reported in Italy or other European countries.

Objectives. The aim of this prospective study was to determine the frequency of alcoholism, assessed with a simple and validated instrument, among patients with advanced cancer who were referred to two different palliative care settings: an acute inpatient palliative care unit (PCU) of a comprehensive cancer center in a metropolitan area and a home care program (HCP) in a territorial district, localized in the mountains of Italy.

Methods. A consecutive sample of patients admitted to an inpatient PCU and to an HCP was assessed for a period of eight months. Each patient who agreed to be interviewed completed the Cut down, Annoyed, Guilty, Eye-opener (CAGE) questionnaire. Patients were then interviewed informally to gather information about their history with alcohol.

Results. In total, 443 consecutive patients were surveyed; data from 249 to 194 patients were collected in the PCU and HCP, respectively, in the eight-month period. The mean age was 66.4 (SD 12.7) years, and 207 were males. The mean Karnofsky level was 54.2 (SD 14.6). Eighteen patients were CAGE positive (4.06%). Males (Pearson Chi-squared, $P = 0.027$) and younger patients (analysis of variance test, $P = 0.009$) were more likely to be CAGE positive. Informal interviews revealed that 17 patients (3.83%) were alcoholics or had a history of alcoholism, and that alcoholism was strongly correlated with CAGE (Pearson Chi-squared, $P < 0.0001$).

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Conclusion. Only a minority of patients were CAGE positive, with a similar frequency in the PCU and HCP settings. CAGE-positive patients were more likely to be male and younger, independent of diagnosis and performance status. CAGE was positively correlated with informal interviews for detecting alcoholism. As CAGE patients express more symptom distress, it is important to detect this problem with a simple tool that has a high sensitivity and specificity and is easy to use even in patients with advanced disease.   J Pain Symptom Manage 2015;49:254−257. © 2015 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

Key Words
Alcoholism, CAGE, advanced cancer patients, palliative care

Introduction

Alcoholism is highly prevalent, occurring in approximately 3−25% of the population[1,2] and is often underdiagnosed.[3] The presence of alcoholism has been associated with poor pain control; patients who have a history of alcoholism are more susceptible to addiction and are poorly compliant with treatments. This group of patients is referred earlier to palliative care, expresses more symptom distress, and is more frequently on opioids.[4] In the U.S., several epidemiological retrospective studies have shown that in cancer patients admitted to palliative care units (PCUs) or outpatient palliative care centers, the positivity rates of the Cut down, Annoyed, Guilty, Eye-opener (CAGE) questionnaire, a simple tool specifically designed to detect alcoholism, were about 17−28%,[4−6] which were higher than those found in the general population (6−8%). Data regarding the frequency of alcoholism in advanced cancer patients in Europe are lacking, possibly differing among countries with specific sociocultural issues. In Italy, scientific data about this phenomenon are lacking, particularly in the cancer population. From institutional registries, alcoholism is estimated to occur in one and a half million of the general population. It has been calculated that risk behaviors, including high daily alcohol consumption, binge drinking, and alcohol consumption in younger people, could involve more than seven million people.[7]

The aim of this prospective study was to determine the frequency of alcoholism among patients with advanced cancer who were referred to two different palliative care settings: an acute inpatient PCU of a comprehensive cancer center in a metropolitan area and a home care program (HCP) in a territorial district, localized in the mountains.

Methods

A consecutive sample of patients admitted to the inpatient PCU of La Maddalena Cancer Center, Palermo, and to the HCP of L'Aquila per la vita, L'Aquila, was assessed for a period of eight months. Inclusion criteria were an acceptable cognitive function and the ability to answer the CAGE questionnaire. Patients with cognitive failure and dying patients were excluded. Each patient who agreed to the interview completed the CAGE questionnaire. Patients were then interviewed informally to gather information about their history with alcohol. According to the content of the confidential interview, patients were classified as follows: no alcohol, rarely, only during meals, and high alcohol consumption or history of high alcohol consumption.

Measure

The CAGE questionnaire is a screening tool for alcoholism, comprising four brief questions: 1) Have you ever felt the need to cut down your drinking? 2) Have you ever felt annoyed by criticism of your drinking? 3) Have you ever had guilty feelings about drinking? and 4) Have you ever taken a morning eye-opener? Alcoholism (CAGE positivity) is indicated by "Yes" answers to at least two of these questions for men and at least one for women. This score has a sensitivity >90% and a specificity >95% to detect alcoholism.[8]

Statistical Analysis

Data were collected and analyzed using IBM SPSS software, version 21.0 (SPSS, Inc.,

Chicago, IL) and Epi Info software, version 3.2.2 (Centers for Disease Control and Prevention, Atlanta, GA). Statistical analysis of quantitative and qualitative data, included descriptive statistics, was performed for all the items. Frequency analysis was done using the Chi-squared test. When parametric analysis was appropriate, univariate analysis of variance (ANOVA) was used. All P-values were two sided, and P-values less than 0.05 were considered to indicate statistical significance.

Results

In total, 491 consecutive patients were surveyed over an eight-month period. Forty-eight patients were unable to participate because of cognitive failure or imminent death. The remaining 443 patients agreed to the interview; data from 249 to 194 patients were collected in the PCU and HCP, respectively.

The primary diagnoses were, in rank order, as follows: lung ($n = 7$), genitourinary ($n = 78$), gastrointestinal ($n = 77$), breast ($n = 67$), pancreas ($n = 30$), head and neck ($n = 27$), liver ($n = 22$), myeloma ($n = 10$), and other ($n = 45$). The mean age was 66.4 (SD 12.7) years, and 207 were males. The mean Karnofsky level was 54.2 (SD 14.6).

Eighteen patients were CAGE positive (4.06%). Significant differences were found in gender (five women were CAGE positive, Pearson Chi-squared, $P = 0.027$). No differences in diagnosis (Pearson Chi-squared, $P = 0.5$) or Karnofsky level (ANOVA test, $P = 0.96$) were found. There was a significant difference in age. CAGE-positive patients were younger than CAGE-negative patients (mean age 58.7 vs. 66.7 years; ANOVA test, $P = 0.009$).

The informal interview revealed that 17 patients (3.83%) were high alcohol consumers or had a history of alcoholism, 89 patients were drinking alcohol rarely, 161 patients only for meals, and 149 were not drinking alcohol. The first category was strongly correlated with CAGE (Pearson Chi-squared, $P < 0.0001$).

No significant differences in the frequency of CAGE-positive patients were found between the two centers ($P = 0.988$). No significant differences between the two centers were found in gender for positive CAGE ($P = 0.820$). However, significant differences were found in age ($P = 0.0005$) and Karnofsky level ($P < 0.0005$).

Discussion

In this study, only a minority of patients were CAGE positive, with similar frequency in the PCU and HCP settings. The CAGE-positive patients were more likely to be male and younger, independent of diagnosis and performance status. CAGE was positively correlated with informal interviews for detecting alcoholism. To avoid lower ratings on the CAGE test, asking about quantity and frequency of alcohol consumption was done after the CAGE assessment.[9]

The findings of this study are in contrast with other surveys in which the positivity of CAGE was much higher, ranging from 17% to 28% of the cancer population.[4–6] In another experience in an outpatient palliative radiotherapy clinic, only 7% of patients were CAGE positive.[10] These studies were performed in North America, where the use of alcohol is probably more widespread than in Italy. The use of alcohol in Italy has never been assessed in scientific studies, and information is based on demographic reports, suggesting that alcoholism is an emergent issue, particularly in the younger generations.[7]

The sample was relatively representative, and data were confirmed in two different settings: an acute PCU of a comprehensive cancer center in a metropolitan area and an HCP based in the mountainous territory of the province of L'Aquila.

Despite contrasting data regarding the frequency of alcoholism in patients with advanced cancer, alcoholism remains often underdiagnosed and should be routinely assessed. Alcoholism may present differently in the diverse social and cultural profiles of European countries. As CAGE patients express more symptom distress and are more likely to have a history of smoking or illegal use of drugs, placing them at risk for chemical coping,[6] it is important to detect this problem with a simple tool that has high sensitivity and specificity and is easy to use even in patients with advanced disease.

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