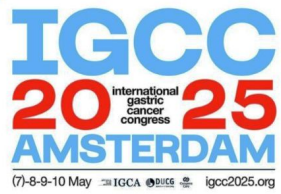


Lifestyle Factors on Early-Onset Gastric Cancer: A Study on Dietary Differences in Patients Under 50

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INTRODUCTION

Early-onset gastric cancer (EOGC) is increasing worldwide. Evidence suggests an etiological role for exposure to risk factors in early life and early adulthood. Understanding these risk factors is essential for developing effective targeted prevention strategies.

METHODOLOGY

This study used a validated epidemiological and dietary questionnaire comprising 120 items to assess lifestyle risk factors for gastric cancer in individuals under 50. Between March 2022 and September 2024, 113 participants were recruited from the Hospital Clínico Universitario de Valencia (HCUV) including 93 cancer patients (16 diagnosed before age 50) and 20 healthy controls. Significant lifestyle and dietary differences were identified among these groups.

Clinical condition	n (%)	Median age
Cancer patient	93 (82.3)	65
Healthy control	20 (17.7)	57
Sex	n (%)	Median age
Male	69 (61.1)	64
Female	44 (38.9)	62
Age	n (%)	Median age
Cancer patient under 50 years	16 (14.2)	41
Cancer patient over 50 years	77 (68.1)	70
Healthy control under 50 years	7 (6.2)	40
Healthy control over 50 years	13 (11.5)	66

RESULTS

Cancer patients reported higher consume of alcoholic beverages (66.3% vs 20%, $p < 0.001$), sugars and processed foods like cookies and cakes (45.9% vs 10.5%, $p = 0.004$), pastries (22% vs 0%, $p = 0.036$), and sweets (84.6% vs 60%, $p = 0.026$) compared to healthy controls (Figure 1). Men and female patients consumed more alcohol than healthy controls, while the consumption of tobacco and oils and fats only presented significant differences in men (Figure 2). Younger cancer patients showed higher consumption of white bread (68.8% vs 14.3%, $p = 0.027$) and industrial pastries (16.7% vs 0%, $p = 0.002$) compared to healthy young controls (Figure 3A). Compared to older patients, they showed higher consumption of red palm products (43.8% vs 16%, $p = 0.036$) and less fruit intake (62.5% vs 96%, $p < 0.001$) (Figure 3B). No significant differences were found between the different groups in other aspects related to lifestyle, such as the consume of meat, salt, vegetables or legumes, among others.

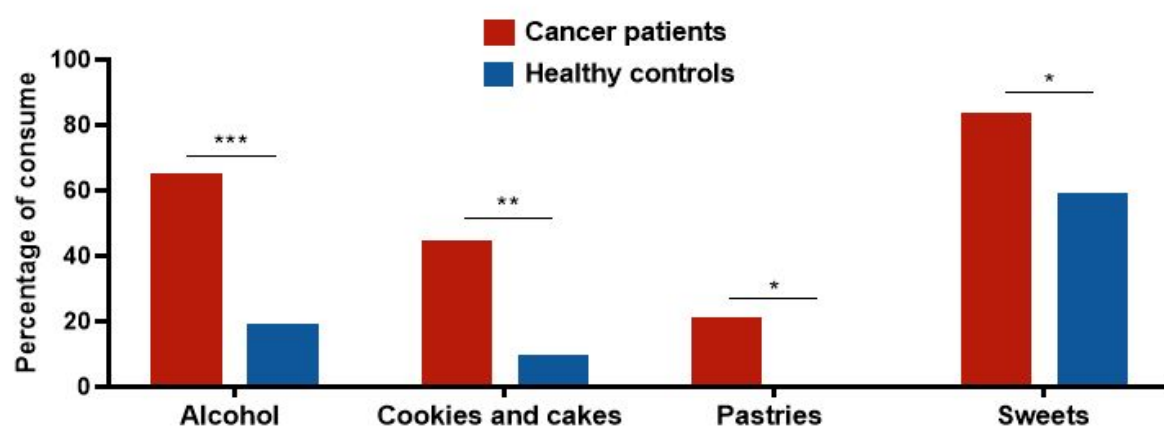


Figure 1. Percentage consumption of alcohol, cookies and cakes, pastries and sweets in cancer patients and healthy controls. A positive response to consumption was considered if the item was consumed once a month for one year in the case of alcohol and daily in the case of the other items.

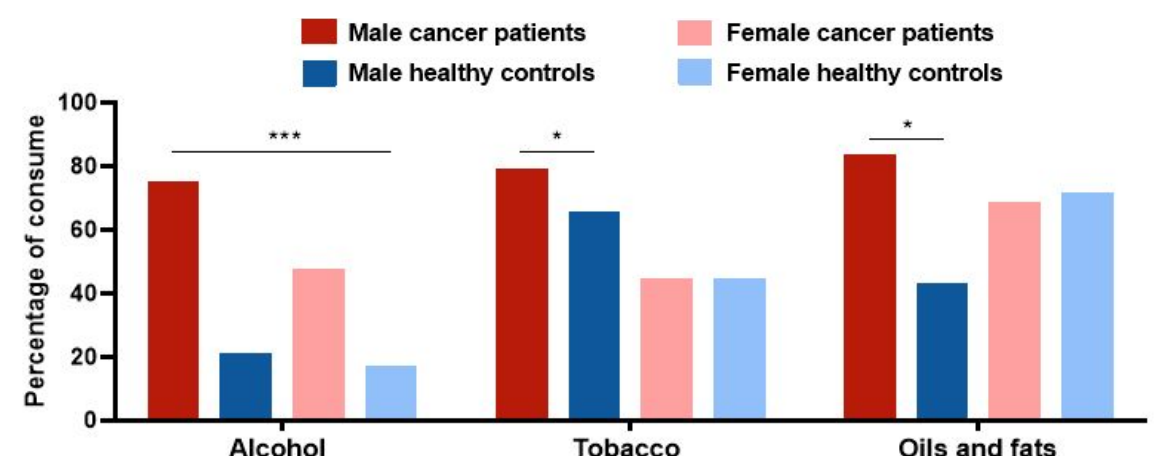


Figure 2. Percentage of alcohol, tobacco and oils and fats consumption in healthy or with cancer men and women. A positive response to consumption was considered if the item was consumed once a month for one year, if 100 cigarettes have been consumed in a lifetime and if the consume was daily, respectively.

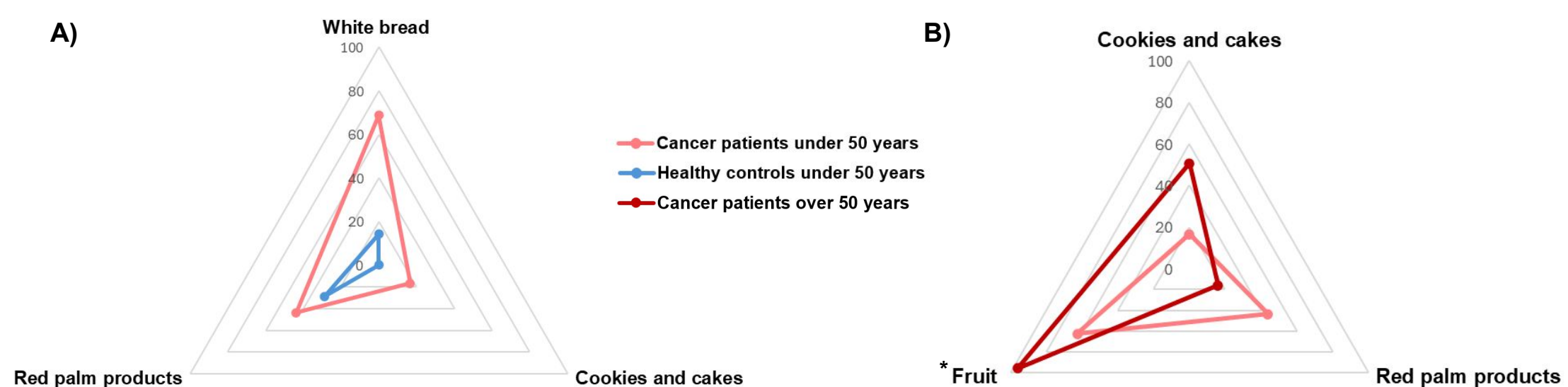


Figure 3. Percentage of daily consumption of different products in cancer patients under 50 years old compared to healthy controls under 50 years old (A) or cancer patients over 50 years old (B). There are represented the products that showed significant differences in consumption between the groups studied. *Fruit intake is considered positive if it is consumed more than three times a week.

CONCLUSION

Alcohol consumption was related to GC independent of age or sex. A higher consumption of processed food and red palm products, as well as a low intake of fruits, are risk factors associated with the development of EOGC, which highlights the need for preventive educational strategies aimed at the younger population.

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