Depression and anxiety screening in acne patients, an approach from the consumption of proinflammatory foods

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Introduction

Acne is estimated to affect up to 9.4 % of the world's population. Symptoms of depression and anxiety have been identified in most of the unaesthetic dermatoses such as acne, causing in turn a negative effect on the quality of life. During the consultation, these symptoms can be investigated using standardized scales. In addition, it has been identified that the consumption of foods with a high glycemic index load has been associated with the development of acne. The following study seeks to evaluate the presence of psycho-affective symptoms and eating habits in patients diagnosed with acne

Material and methods

We performed an observational cross sectional study from May 2021 to March 2022 a survey from May 2021 to March 2022 to patients consulting a dermatological center in Bogotá, Colombia. Demographic characteristics were gathered, anxiety and/or depression symptoms were evaluated using the Generalized Anxiety Disorder (GAD-7) scale and Patient Health questionnaire (PHQ-9), respectively. Additionally, patients were asked about eating habits regarding sugar, dairy and ultra-processed food intake. We collected and analyzed data using Excel Microsoft.

Score	Severity	Sugar intake	Ultra-processed food intake other than sugar	Dairy intake
PHQ-9 results (Depression)	None-minimal	387	280	411
	Mild	13	12	11
	Moderate	14	10	14
	Moderately severe	16	11	17
	Severe	9	7	10
GAD-7 results (Anxiety)	Minimal	380	281	403
	Mild	12	10	13
	Moderate	19	13	19
	Severe	28	16	28

Table 1. Results interpretation of PHQ-9 and GAD-7 scores and the frequencies of patients that affirm consumption of ultra-processed foods and dairy

Results

Of 504 patients 67.8% (n= 339) were women. We found that 8.2% (n=42) had anxiety, 2.8% (n=41) depression, and 8.2% (n=41) had symptoms of anxiety and depression simultaniously. Among other diagnoses, 1 patient had bipolar affective disorder (BAD). Regarding PHQ-9, 89.2% (n=446) presented minimal or no risk, 2.8% (n=14) low risk, 3.2% (n=16) moderate risk, 3.6% (n=18) moderate-severe and 2% (n=10) had high depression risk. The GAD-7 scale showed that 88.4% of patients (n=442) presented minimal risk, 2.6% (n=13) low risk, 4% (n=20) moderate risk, and 5.8% (n=29) had high risk of anxiety. Regarding sugar and dairy products intake, both showed that 10.31% (n=52) of patients had at least mild depression symptoms and they consume these kinds of food at least once a week. The 11.71% (n=59), 7.73% (n=39) and 11.90% (n=60) of the patients affirmed that they consumed sugar, ultra-processed and/or dairy products at least once a week, respectively, and had at least at low risk of anxiety.
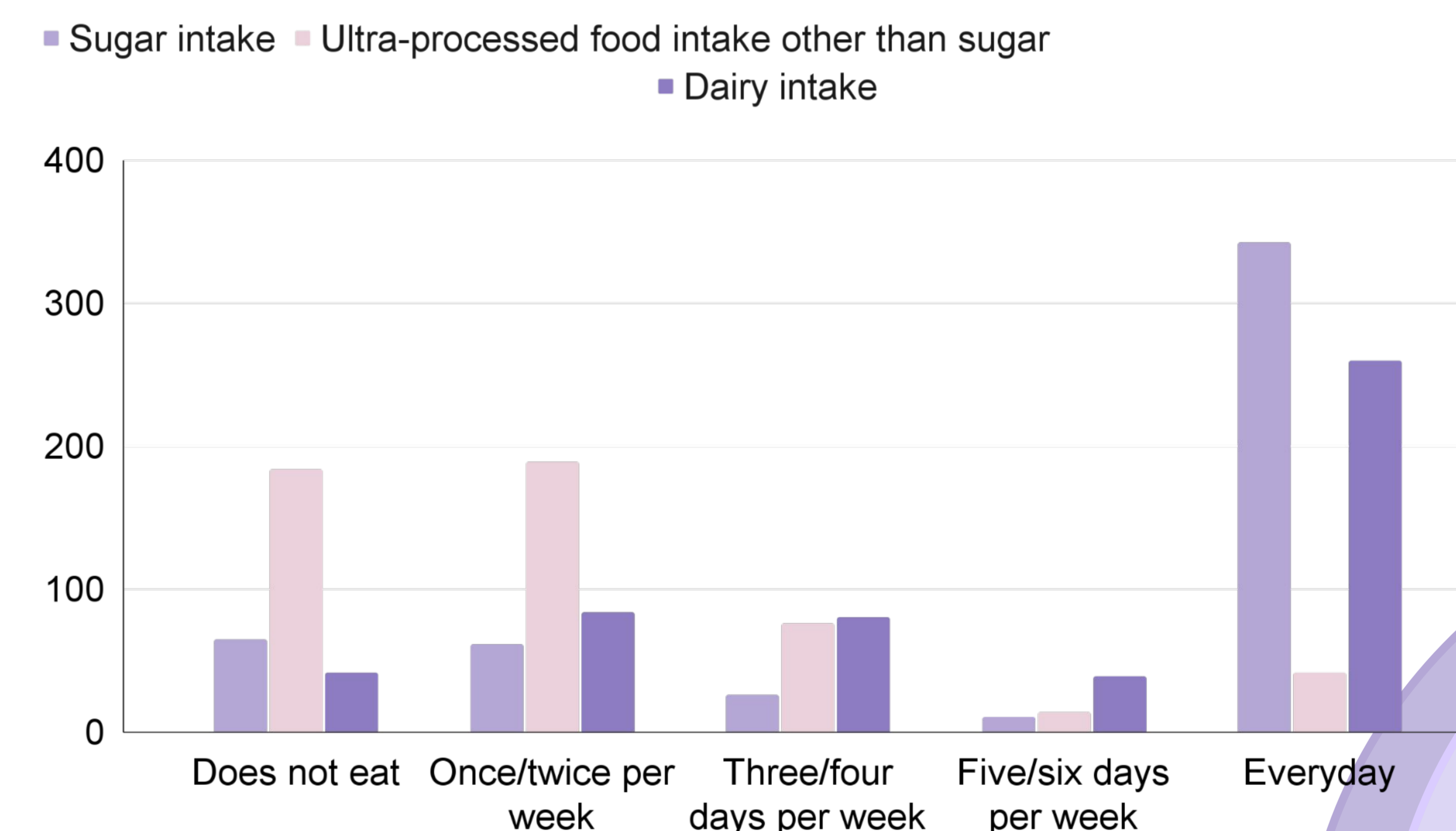

Figure 1. Frequency of consumption of some food groups in patients with acne.

Conclusions

The majority of patients with acne presented a low risk of developing anxiety and depression. However, the group of patients who showed high risk was not negligible, so it is necessary to routinely adopt the application of validated scales to identify psychoaffective symptoms in dermatologic consultation. In relation to diet, it was identified that a group of patients who consumed dairy products, sugars and ultra-processed foods, presented at least mild symptoms of depression and anxiety, so it is considered necessary to conduct future studies to identify the impact on the treatment of acne by controlling the consumption of these food groups. This study reaffirms the importance of evaluating and treating patients in a comprehensive manner.

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