LETTER TO THE EDITOR

Comment on 'Acne and nutrition: hypotheses, myths and facts'

Dear Editor,

We read with great interest the original article by Claudel *et al.*,[1] and we completely agree that, even if recent research has allowed to identify the impact of nutritional elements and behaviour on acne, data about the role of nutrition in the physiopathology of acne still remain sparse.

In the wake of this evidence, we aimed to investigate the adherence to the Mediterranean Diet using a 14-item PRE-DIMED (PREvención con DIetaMEDiterránea) questionnaire, and the severity of acne in a sample of fifty-one patients affected by mild-to-severe acne compared to control group matched for sex, age and BMI.[2]

Among acne patients, GAGS score was 22.08 ± 9.12, age was 24.29 ± 6.053 years and BMI was 24.75 ± 4.07 kg/m^2. In control group patients, age was 26.84 ± 8.42 years and BMI was 24.59 ± 1.69 kg/m^2. No statistically significant differences in BMI and age were observed between the two groups.

A validated 14-item questionnaire for the assessment of adherence to the Mediterranean Diet (PREDIMED) was recorded for all the enrolled subjects during a face-to-face interview between the patient and a certified nutritionist. Briefly, for each item were assigned scores 1 and 0; PREDIMED score was calculated as follows: 0–5, lowest adherence; score 6–9, average adherence; score ≥ 10, highest adherence.[2,3]

PREDIMED questionnaire is a brief 14-item questionnaire which is less time-demanding, less expensive and requires less collaboration from participants than the usual full-length food frequency questionnaire or other more comprehensive methods. Moreover, this questionnaire allows to provide feedback to the participant immediately after the interview is completed.

In Table 1 are reported the responses of each item included in PREDIMED questionnaire in the two groups. Acne patients exhibited statistically significant differences compared with controls for use of the following dietary components. Our data confirm, as described in the cited article, that low or excessive consumption of some dietary components can be associated with acne.

Acne patients, in fact, consume less vegetables, fruits, fish, legumes and poultry meats than controls. On the contrary, acne patients drink more sugar drinks and red meat than controls.

According to Claudel *et al.*, alcohol consumption may influence acne for different factors such as his secretion in the sweat, acetaldehydes actions, activity on skin microbiota and increased cytokine release. However in contrast with these data, we observed greater consumption of wine, in moderation, during meals in control group patients than in acne ones. Mediterranean diet, reportedly associated with better survival, includes moderate consumption of ethanol (mostly from wine) for its antioxidant effect.[4] Moreover, a wine component, resveratrol, a natural phytoalexin produced by some spermatophytes, such as grapes and other plants, may be a therapeutic agent for the treatment of acne vulgaris.[5]

Currently, the association between nutrition and acne is not clearly confirmed. However, we agree with the authors that patients should be questioned during their first visit about their daily food habits, potential family acne history, lifestyle or eating disorders. In this way, dermatologists may those patients who could get additional benefit from careful dietary interventions. In this way, we can reach two goals. First, we can promote safe lifestyle behaviour increasing the intake of fruit, vegetables and fish.

Table 1 The chi-square (χ^2) test was used to determine the significance of differences in frequency distributions

Questions predimed questionaries	Control group		Acne patients		*P* value
	n	%	*N*	%	
Use of extra virgin olive oil as main culinary lipid	44	86.3	48	94	0.18
Extra virgin olive oil >4 tablespoons	41	78.85	42	82	0.79
Vegetables ≥ 2 servings/day	37	72.5	25	49	**0.015***
Fruits ≥ 3 servings/day	40	78.4	25	49	**0.002****
Red/processed meats <1/day	28	54.9	37	72	0.06
Butter, cream, margarine <1/day	44	86.3	39	76.50	0.1
Sugar drinks <1/day	39	79.5	29	57	**0.04***
Wine glasses ≥ 7/week	48	96	17	33	**<0.0001*****
Legumes ≥ 3/week	46	90.2	33	65	**0.002****
Fish/seafood ≥ 3/week	44	86.3	23	45	**<0.0001*****
Commercial sweets and confectionery ≤ 2/week	34	66.6	33	65	0.83
Tree nuts ≥ 3/week	22	43	22	43	0.84
Poultry more than red meats	45	88.2	36	70	**0.03***
Use of sofrito sauce ≥ 2/week	32	62.7	29	57	0.75

All statistical analyses were performed using GraphPad Prism 4.0 (GraphPad Software Inc, La Jolla, CA, USA). Paired Student's *t*-test was used to calculate statistical differences, and values of $P < 0.05$ were considered significant.

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$.

Bold indicates acne patients consume less vegetables, fruits, wine in moderation, legumes, fish and poultry meats than controls. On the contrary, acne patients drink more sugar drinks than controls.

Second, we can decrease eventual co-factor of morbidity enhanced by hyperglycaemic food, reducing the risk of increasing BMI and obesity among young people.

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