The Influence of Dietary Components on Acne; A Case-Control Survey

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Abstract : Acne vulgaris affects millions of adults.Despite extensive research, its food related etiology remains elusive. Objective:To assess the correlation between dietary intake and acne through a case-control survey of 300,15-25 year old respondents living in Pakistan. 50 acne patients and 150 age-and ethnicity-matched controls completed a questionnaire.Cases and controls were separated using SPSS-22 and univariate analysis was performed using the chi-square test. p value < 0.05 was considered statistically significant. We used adjusted odds ratios to assess the strength of associations with 95% confidence intervals. Most of the respondents were females(91.3%).Most(48.7%)acne patients were 20-25 yearsold.Acne severity was mild in 50%,moderate in 34%,severe in14%and very severe in 2%.Frequent low-fat foods($p<0.001$)(OR=3.22),fat intake($p=0.03$)(OR = 1.629),sweet snacks i.e. biscuits and candies etc. ($p=0.013$) (OR=1.9254), soft drinks($p= 0.045$)(OR= 1.9091),butter($p<0.001$) (OR= 1.8185),dairy products($p=0.043$)(OR=0.624),salty foods($p= 0.011$)(OR=1.961),chocolate ($p=0.028$)(OR=1.669), were associated with increased acne risk.No association was found with consumption of fried foods, desserts, fruit juices, raw fruit, fast food, vegetables, cheese, soy products, salt, and corn. Increased butter and chocolate consumption were linked to more severe forms of acne($p=0.049$ and $p=0.005$ respectively).Most respondents (n=218) considered themselves to have healthy eating habits, indicating they were not educated about the nutritional aspects of acne treatment.Certain food item intake was significantly higher in acne patients to give an association between the two. Further studies must be conducted to develop a causative relationship. Nutrition aawareness is critical to reduce acne.

Keywords : correlation between dietary components and acne, dietary components, acne, nutrition

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