

SUMMARY

Acne is the most common skin disease. People of all races and ages get acne, especially teenagers and young adults , nearly 85 percent of people between the ages of 12 and 24 get acne, for most people, acne goes away by age 30, but some people in their forties and fifties still get acne.

An association between diet and acne has long been postulated and research in this field has been accelerating during the past few years.

Earlier reports investigating the impact of diet on acne had controversial results, with some indicating diets with carbohydrate and fat worsen acne, others indicating no such relationship. Several isolated observations suggested that acne can develop in groups when a high glycemic index diet is adopted.

Leptin is an adipocytic- derived hormone, its receptors in hypothalamus to control satiety, also has role in: haematopoeisis, angiogenesis, neuroendocrine function, immune responses , obese patients are leptin resistant so obese patients show higher levels of leptin than non obese ones.

Serum leptin levels in human beings depend on sex, age, and body fat mass. Oral food intake and diet composition such as carbohydrate-rich food influence leptin concentrations.

The goal of our study was to investigate the effect of daily diet glycemic index, glycemic loads, glucose and serum leptin levels on the pathogenesis of acne.

This study included 36 acne and 36 healthy controls. All studied individuals were subjected to history taking as personal history: name, sex, age, residence, occupation, marital status and special habit, present history: onset, duration and course, general examination: weight, height and body mass index was calculated by weight (in kilograms) divided by square of height (in meters) as a measure of total adiposity (weight in kilograms / square of height in meters). Clinical examination; sites and morphology of acne vulgaris, we investigated serum level of Leptin, fasting blood sugar. Voluntary self-completed questionnaire was administered to all patients with acne and control subjects from which overall glycemic index was calculated as (carbohydrate content in gm \times number of servings per day of that food item = glycemic index value) and total glycemic load was calculated as (Glycemic index \times carbohydrate content / serving size).

The result of this work showed the following:

1. No elevation of dietary glycemic index in patients with acne vulgaris as compared to the control group, there was no statistically significant difference between patients group and control group.
2. No difference in body mass index between patients with acne vulgaris as compared to the control group, there was no statistically significant difference between patients group and control group.
3. No difference in fasting blood glucose level between patients with acne vulgaris and as compared to the control group.
4. No difference in serum leptin level between patients with acne vulgaris and as compared to the control group.
5. There was positive correlation between serum leptin level of patients and control group with sex as the serum leptin in female patients was more elevated than male patients and in all females in the study group it was more elevated than all males in the study group so the serum leptin level was elevated in females than males in both patients and controls.
6. There was no correlation between the degree of acne severity and dietary glycemic index, glycemic load, BMI, fasting glucose level and serum leptin level.

7. There was no correlation between the duration of acne and dietary glycemic index, glycemic load, BMI and fasting glucose level.
8. There was positive correlation between duration of acne and serum leptin level.
9. There was no difference in dietary glycemic index, glycemic load, BMI, fasting glucose level and serum leptin level as regards the back affection in acne patients
10. There was positive relation between the duration of acne and back affection.

CONCLUSION

No difference in body mass index, dietary glycemic index, glycemic load, fasting blood glucose level and serum leptin level between patients with acne vulgaris and control group; this supports the fact that they do not play a major role in pathogenesis of acne in this sample.

The serum leptin level was elevated in females than males in both patients and controls.

There was no correlation between duration of acne and dietary glycemic index, glycemic load, BMI and fasting glucose level. There was positive correlation between duration of acne and serum leptin level.

There was no correlation between the back affection and dietary glycemic index, glycemic load, BMI, fasting glucose level and serum leptin level. There was positive correlation between the back affection and acne duration.