

SUMMARY

**EVALUATION OF THE RELATIONSHIP BETWEEN DISEASE
SEVERITY AND SEBUM LEVELS USING MPA-5 EQUIPMENT IN
ACNE VULGARIS PATIENTS**

Acne vulgaris is a very common, chronic inflammatory disease of the pilosebaceous unit. It is characterized by comedones, papules, pustules, nodules and sometimes scar formation in areas rich in sebaceous glands. An androgen stimulated increase in sebum production, follicular hyperproliferation, colonization of *Propionibacterium acnes* and inflammation are the pathogenetical events in acne.

The aim of this study was to evaluate the relationship between the severity of acne and sebum secretion by using MPA-5 equipment and also to determine the pH and moisture levels.

Hundred and twenty acne vulgaris patients who were seen at the Adnan Menderes University Dermatology Clinic between October 2006 and October 2007 and 60 control subjects were included in the study. The age of the subjects ranged between 13-30 years. The sebum level on the forehead and chin were higher in the acne vulgaris patients when compared with the control subjects. The mean sebum level of the whole face in acne vulgaris patients were higher than control subjects but it was not statistically significant. The pH of skin in all face areas were higher in acne vulgaris patients when compared with the control group. The moisture levels of all areas in the face other than the nose were lower in the acne patients than the control group. There was not a significant relation between acne severity and mean sebum level of the face. On the forehead there was a positive correlation between the number of noninflammatory lesions and the sebum level ($p=0,030$). There was no relation between acne severity and mean pH and moisture of the face.

In conclusion, the results of our study suggest that acne severity and sebum levels were not directly related and treatment options which decrease only the sebum levels would not be adequate in the management of these patients.

Also we suggest that the role of skin pH and moisture levels in planning the supportive treatment options are worth to investigate.

Key words: Acne vulgaris, sebum, moisture, pH