

Abstract

The Comparison serum levels of 5alphaandrostenedione and Insulin resistance in melasmatic and non-melasmatic women in 1396

Background and Objective: melasma is an increased in acquired pigmentation in the areas of sun exposure, particularly in the face that is slowly and symmetrically shaped. It is common in reproductive ages and it occurs in the first trimester of pregnancy. Progesterone and estrogen stimulate melanogenesis, and in various studies, various sex hormones are accused of causing it. 5-Alpha androstenedione is the metabolite of androstenedione, androstenedione itself is also the metabolite of testosterone. The aim of this study was to compare the level of 5-alpha-androstenedione and insulin resistance in women with melasma and non-melasma. **Methods:** In this study, 141 women were enrolled in the study as the case group and 141 non-melasmaic women as control group. Patients were provided with an informed consent to enter the study. Blood sampling was done by a laboratory and the serum was isolated using a centrifuge and using standard kits, 5-Alpha-Androstenedione and Insulin-IBL Ingredients, the serum levels of insulin hormones and 5-alpha-androstenediones were measured. The data analyzed by using SPSS software and $p < 0.05$ was significant correlation.

Results: The mean age of the subjects in the case group was 31.9 ± 3.2 and in the control group 31.1 ± 3.8 years. The mean marital outbreak in the case group was higher than the control group ($P < 0.001$). Mean history of melasma was higher in first-degree relatives of the case group than in the control group ($P < 0.001$). There was no significant difference in insulin resistance between the two groups. This difference was significant between the two groups in comparison to the serum level of 5-alpha-androstenedione ($P < 0.001$). No significant difference was found between the two groups in the FBS level ($P = 0.314$).

Conclusion: Our study showed that the serum level of 5-alpha-androstenedione in women with melasma is higher than that in non-melasma women, and it's likely that this androgenic metabolite plays a role in the development of melasma.

Key words: 5-alpha androstenedione, Insulin hormone, melasma