عنوان مقاله:

Correlation between Cytochrome P۴۵۰, ۵-alpha Reductase, and Androgen Receptor Levels in Patients with Type ۲ Diabetes Mellitus

محل انتشار:

مجله دیابت و چاقی ایران, دوره 14, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 9

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خلاصه مقاله:

Objective: Type ۲ diabetes mellitus (T۲DM) is one of the most common chronic diseases. The CYP۴۵۰ plays an important role in the biosynthesis of steroid hormones and the hormonal activity is mediated by the androgen receptor (AR) and the enzyme ۵-alpha reductase (۵αR). Therefore, this study aimed to investigate the relationship between these factors in T۲DM. Materials and Methods: This case-control study was performed with ۶۰ volunteers, including ۳۰ diabetics and ۳۰ healthy individuals. Demographic information of individuals was recorded and levels of CYP۴۵۰, ۵αR, and AR were measured in serum by ELISA. Data were analyzed by SPSS v.۲۶ version and the significance level was less than ۵%. Results: There were no significant difference between diabetics and healthy individuals in gender (P= ۱), body mass index (P= ۰.۱۹۹), diastolic pressure(P= ۰.۴۶۶), uric acid(P= ۰.۲۰۲), creatinine(P= ۰.۶۲۷), low-density lipoprotein (P= ۰.۵۷۲), high-density lipoprotein(P=۰.۶۹۲); But there was a significant difference in systolic pressure(P= ۰.۰۳۴), triglyceride(P= ۰.۰۰۰۱), and insulin(P= ۰.۰۰۳), between diabetics and healthy individuals. The distribution of CYP۴۵۰, ۵αR and AR in two groups shows that the level of all three factors is higher in diabetic people (P= ۰.۰۰۰۱). Also, glycosylated hemoglobin and insulin have a direct relationship with CYP۴۵۰ (P= ۰.۰۰۰۱, R=۰.۴۹۴; P= ۰.۰۴۳, R=۰.۲۶۳), ۵αR (P= ۰.۰۰۰۱, R=۰.۸۰۸; P= ۰.۰۱۶, R=۰.۳۰۹) and with AR (P= ۰.۰۰۰۱, R=۰.۸۳۶; P= ۰.۰۱۱, R=۰.۳۲۶). Conclusion: These results showed that there was a relationship between the levels of CYP۴۵۰, ۵αR, and ARs with T۲DM which .may explain hormonal changes in diabetic people and the different responses to treatment

کلمات کلیدی:

Diabetes mellitus, Cytochrome P۴۵۰, ۵-alpha reductase, Androgen receptor

لینک ثابت مقاله در پایگاه سیویلیکا: