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Screening of Polymorphisms of Transcription Factor 7-like 2 Gene in Polycystic Ovary Syndrome using Polymerase Chain Reactionrestriction Fragment Length Polymorphism Analysis

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Abstract

Background:

Polycystic ovary syndrome (PCOS) is a common endocrine disorder occurring in premenopausal women, with a prevalence rate of 5%–7%. It has been observed in multiple number of studies the coexistence between diabetes mellitus 2 and obesity with this endocrinopathic disorder. Transcription factor 7-like 2 (TCF7L2) gene is shown to be associated with insulin secretion.

Aim:

To screen whether the gene variant of TCF7L2 (formerly TCF4) gene is significantly associated and has susceptibilities with type 2 diabetes in PCOS. This study is essential to uncover diabetogenic association of the TCF7L2 gene variants with PCOS.

Design:

This was a hospital-based study.

Methods:

In this work, blood samples from 43 PCOS patients with age and sex similar to 43 control samples were collected, followed by isolation of DNA. Further genotyping of the TCF7L2 gene was carried out by performing polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP).

Statistical Analysis: