عنوان مقاله:

Association of selected polymorphisms in GPX۴, COMT, pre-miR-۱۲۵a, pre-miR-۱۰a, and pre-miR-۳۲۳b genes in Iranian women with idiopathic recurrent pregnancy loss: A case-control study

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خلاصه مقاله:

Abstract Background: Recurrent pregnancy loss (RPL) is a major concern among women worldwide. However, the exact mechanisms underlying miscarriage are not well understood. Recent evidence suggests that single nucleotide polymorphisms in various genes, especially miRNAs, may be responsible for RPL. Objective: We surveyed the association between polymorphisms in pre-miR-۱۲۵a, pre-miR-۱۰a, pre-miR-۳۲۳b, GPX۴, and GPX۴ in Iranian women with idiopathic RPL. Materials and Methods: DNA was extracted from blood samples of ۱۱۶ women with idiopathic RPL and ۸۹ healthy women as controls who had previously had at least two successful pregnancies. Polymerase chain reaction was used for the amplification of the genes. Genotype screening along with SNaPshot were performed to detect different polymorphisms. Finally, the polymorphisms and frequency of each genotype were compared between the two groups. Results: The frequencies of polymorphisms in pre-miR-۱۲۵a ($p < ۰.۰۰۱$) and pre-miR-۱۰a ($p = ۰.۰۴$) were calculated among the case and control groups, which showed a statistical difference ($p < ۰.۰۵$), indicating an association between these polymorphisms and the symptoms of RPL. The frequencies of polymorphisms of genotypes in GPX۴, COMT and pre-miR-۳۲۳b did not demonstrate any difference between the two groups. Also, the amount of alleles in pre-miR-۱۲۵a and pre-miR-۱۰a were significantly different ($p < ۰.۰۰۱$ and $p = ۰.۰۲$, respectively) and the dominant inheritance model was proposed. Conclusion: In pre-miR-۱۲۵a and pre-miR-۱۰a can be associated with RPL in women. The SNaPshot technique is a valuable tool to evaluate possible associations between polymorphisms and health conditions.

کلمات کلیدی:

SNaPshot, Single-nucleotide polymorphisms, Recurrent pregnancy loss, Genotypes, SNaPshot,
پلی مورفیسم تک‌نوکلئوتیدی, سقط مکرر, ژنوتیپ ها.

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