

tabolism and reproductive system. Moreover, it has been shown that leptin and leptin receptor are expressed in reproductive organs of some species. Hence, leptin has a direct effect on reproduction. Aim of this study was to investigate the expression of leptin mRNA in ovine corpus luteum.

Methods: Ovine ovaries were collected from abattoir and immediately were transported to the laboratory on ice. Corpus luteum pieces were sliced, total RNA was extracted, and cDNA synthesis was done. First, PCR reaction was done for β -actin, as a housekeeping gene, to evaluate the accuracy of molecular experiments. PCR reaction was done for leptin using appropriate primers. Fat tissue was used as positive control.

Result: Gel electrophoresis for PCR product was confirmed amplification of 121 bp fragment of leptin. So, it was demonstrated that transcript of leptin is expressed in ovine corpus luteum.

Conclusion: Presence of leptin mRNA in the ovine corpus luteum suggests that leptin is involved in the physiological processes of ovine corpus luteum, which should be clarified.

Key word: Leptin mRNA, Ovine, Corpus luteum

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Overview of the Three Jurisprudence Theories about the Artificial Insemination

Ramin farsi

Email:

Abstract

The age we are living has been seriously conquered by sciences and technologies that have laid the foundation of civilization and culture and modern equations. Although in different ages among jurists, the responsiveness to reclaim and new discovered problems had been current affair. However, in the last hundred years because of developing sciences, cultural, industrial, and social changes are intensified. The progress of medical sciences caused that some of subjects in the field of jurist discussions became mixed; sometimes, the alert and well-informed Shiite Jurists raised and considered the jurist discussions before the scientific developments. Since decades ago, the jurists have noticed them and discussed about their verdicts. Artificial insemination also is one of the most important subjects that they have paid attention to.

Key word: Artificial insemination, In vitro fertilization, Homologous artificial insemination, Heterologous artificial insemination, Jurisprudence

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Association of Rs1042658 Polymorphism in Colony Stimulating Factor (CSF3) Gene with the Susceptibility to Idiopathic Recurrent Miscarriage

Kobra Jahangirzadeh, Mahbobeh Nasiri, Abbas Malekmohammadi

Email: ka_jahangirimalek@yahoo.com

Abstract

Miscarriage is one of the most frequent problems in human pregnancy. The incidence among clinical pregnancies is about 12-15% but including early pregnancy losses it is 17-22%. Recurrent pregnancy loss (RPL) is defined as the loss of two or more consecutive pregnancies prior to 20th week of gestation. RPL has been associated with multiple causes, but in almost half of the cases, etiologies remain unknown, which is called "idiopathic recurrent pregnancy loss". Several studies suggest that gene polymorphisms encoding for different immunologic mediators may present a susceptibility factor for unexplained RPL. The aim of this study was to assess the relationship between the genetic polymorphism rs1042658 in 3'UTR region of the CSF3 gene and idiopathic RPL. A total of 122 cases with the experience of at least 2 idiopathic pregnancy loss (age range 17-85 years) and 140 women with no previous history of abortion (age range 43-79) were enrolled in the study. Genotype analysis carried out by using Tetra-Primers ARMS PCR method. The rs1042658 variant allele (T) was present at frequencies of 0.28 and 0.26 in cases and controls, respectively (OR: 1, 95%CI: 0.02-50.4, P=1). Among three different types of genotypes, the frequency of heterozygote carriers showed protective effects on the RPL susceptibility (OR: 0.42, 95%CI: 0.18-0.98, P: 0.047). Moreover, in the dominant genetic model (comparison TT+CT vs. CC), T allele again showed protective effect on the disease (OR: 0.44, 95%CI: 0.2-0.99, P: 0.047). It seems that the variant rs1042658 of the CSF3 gene can be considered as a molecular predictor of idiopathic recurrent pregnancy loss in Iranian women.

Key word: Idiopathic recurrent pregnancy loss, Polymorphism, Colony stimulating

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Prevention of Inherited Mitochondrial Disease by Using Three Parent IVF

Amin Hassanzadeh Nemat

1- Payamnoor University of Tehran Shargh, Tehran, Iran

Email: amin.hassanzadeh5@gmail.com

Abstract

Introduction: Mitochondrial dysfunction has been recognized as a significant cause of a number of serious multi-organ diseases. Tissues with a high metabolic demand such as brain, heart, muscle, CNS are often affected. Given the lack of treatments and the limitations of prenatal and preimplantation diagnosis, attention has focused on prevention of transmission of mitochondrial disease through germline gene replacement therapy.

Mitochondrial DNA Mutations and Human Disease: The mitochondrial genome contains only 37 genes, and mtDNA is maternally inherited. Mitochondrial disease can be due to mutations in mitochondrial DNA (mtDNA) or in nuclear genes involved in mitochondrial function. There is increasing evidence that acquired mtDNA mutations are involved in several chronic age-related diseases such as dia-

Food Technology Research Institute, Shahid Beheshti University of Medical Science, Tehran, Iran

2- Department of Community Nutrition, Faculty of Nutrition and Food Technology, National Nutrition and Food Technology Research Institute, Shahid Beheshti University of Medical Science, Tehran, Iran

3- Faculty of Nutrition and Food Technology, National Nutrition and Food Technology Research Institute, Shahid Beheshti University of Medical Science, Tehran, Iran

Email: *dizavali@nfi.ir*

Abstract

Background: Quality semen is considered a semen ability indicator for fertility. To assess the quality of semen, factors such as count, morphology, motility, and concentration of semen are measured. Various factors such as nutrition, age, temperature, chemicals, and pharmaceuticals affect its quality. This study includes a review of the literature related to nutritional factors related to the semen quality. **Materials and Methods:** In this review article, search for articles with keywords in the database Scopus, Google Scholar, and PubMed, was collected.

Result: Studying the existing literature indicated that dietary factors such as total fishes, dark fish, vitamin C, and low fat dairy intake had direct effect on Sperm count. Whereas total fat, saturated fatty acid, total food dairy and high fat of ones, cheese, and cola were associated with Sperm count inversely. Also low fat food dairy, total carotenoid, fish, sea foods, fruit, vegetables, dark bread, cryptoxanthine, zinc, and folic acid were leaded better effect to motility of sperm, high fat food dairy, cheese, total vitamin E, margarine, and Sweetened drink had a negative effect. Dietary factors such as Low-fat milk, potatoes, vegetables, total antioxidant intake, vitamin total vitamin C and vitamin C from food sources had a beneficial effect on sperm concentration, whereas total fat, saturated fatty acids, unsaturated fatty acids with a double bond, cheese, beta-carotene, vitamin C with food source, cola, and soy foods had an adverse effect. Also, about morphology of sperm, total omega-3 intake, organ meats, whole fish intake, lycopene, and vitamin E intake were associated directly, but unsaturated fatty acids with a double bond, processed meats, whole milk intake, high-fat dairy products, cheese, and Cola did not have the desired effect.

Conclusion: With regard to the results of our study, high-fat dairy and saturated fatty acids have adverse effects of on semen quality, whereas a low-fat milk and fish have a beneficial effect. However, due to lack of studies in this field, further investigation is needed.

Key words:

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Effect of Trans Fats on Female Infertility, Pregnancy and Abortion

Mina Ariana¹, Mana Kabgani^{2,3}, Kaveh Kheirkhah Rahimabad⁴

1- Islamic Azad University of Shahr-e-Qods Branch, Tehran, Iran

2- Shahid Beheshti University Medical of Sciences, Tehran, Iran

3- Tehran University of Medical Sciences, Tehran, Iran

4- Environmental Engineering, Science and Research branch Islamic Azad University, Tehran, Iran

Email: *kh.kavani@gmail.com*

Abstract

Introduction: Lifestyle changes over the years and expanded fast foods and a generally unhealthy diet cause damage to the reproductive potential of women and a rise in infertility among them. Trans fat is one of the unhealthy diets. A small quantity of Trans fat is found naturally in foods usually in animal products, but the vast majority of trans fats are artificial and come from the partially hydrogenated oil found in packaged foods. The most common culprits are packaged snacks, fried foods, and commercial baked goods like cookies, crackers and cakes. The objective of the study was to examine whether dietary Trans fats were associated with female Infertility, birthweight, duration of pregnancy, and Abortion.

Methods: In this routine data base study, we recruited several articles with subjected effect of Trans fat on pregnancies and abortions and infertility in PubMed.

Results: Studies released shows that foods with Trans fats increase 67 percent the risk of ovulatory infertility. 58 percent of babies whose mothers' dietary intake of Trans fatty acids 35.2 grams per day, especially in the second and third trimester of pregnancy, were born with high birth weight, and approximately 26 percent of these mothers were diagnosed with gestational diabetes. Also, the number of abortion increases because Trans fats increase cholesterol and blood sugar, causing cardiovascular disease in the mother and fetus.

Conclusion: Trans fats, can make healthy women infertile by hormonal disorders caused by obesity. Trans fat consumption may lead to birth weight. In addition, Trans fats have a negative impact on mother and fetus health. Reports on the harmful action of Trans fats on humans persuasively reveal the need to limit their intake

Key words: Trans fats, Infertility, Pregnancy, Abortion

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Ovine Corpus Luteum Expresses Leptin Mrna

Abbas Parham^{1,2}, Mozaffar Karimzadeh¹

1- Department of Basic Sciences, Veterinary Faculty, Ferdowsi University of Mashhad, Mashhad, Iran

2- Embryonic and Stem Cell Biology and Biotechnology Research Group, Institute of Biotechnology, Ferdowsi University of Mashhad, Mashhad, Iran

Email: *parham@um.ac.ir*

Abstract

Introduction: Leptin hormone plays an important role in reproduction. It seems that leptin is an important linkage between body me-