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POSTER PRESENTATION

Serum AMH in PCOS: Unrelated to IL-6/Caspase-3 but linked to enhanced HepG2 viability

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Polycystic ovary syndrome or PCOS is one of the most common endocrinopathy gland disorders in women. The increased oxidative stress in these patients creates a more conductive environment for the development of serious complications such as cardiovascular diseases, type 2 diabetes and insulin resistance, endometrial and breast cancer, metabolic syndrome and neurodegenerative disease. The aim of the present study is to investigate the effect of serum from people with polycystic ovary syndrome on the level of **oxidative stress** factors in HEPG2 cancer cells. AMH and Zinc were measured in two groups of minimum 30 samples in normal and PCOS sera by quantitative luminescence immunoassay. Thereafter, ELISA test was conducted for IL6 and caspase-3 measurement in the selected sera. Finally, one serum of each group was chosen to be added to HepG2 cell culture microenvironment for 24h and 48h and the cell toxicity was assessed. The serum level of AMH showed a non-significant inverse trend with IL-6 and the caspase-3 activity in the sera of both groups and a markedly association with the HepG2 cell viability after 48h of exposure to specific-serum-containing media. PCOS serum AMH exhibited a non-significant inverse relationship with IL-6 and caspase-3 activity across groups, yet correlated strongly with increased HepG2 viability after 48-hour serum exposure. This disparity suggests a potential cytoprotective role for AMH that may support cell survival through mechanisms distinct from canonical inflammatory or apoptotic pathways. Further investigation is needed to define AMH's role in regulating cellular resilience.

Biography

Pariya Najibzadeh is a 30 years old researcher, graduated with a Master's degree in Biochemistry from Tehran University of Research Sciences - Iran (thesis related to PCOS disease). She has 3 years of work experience in the medical diagnostic laboratories, 5 years of work experience in the IVF and infertility department in the embryology and andrology laboratory, including egg and sperm separation and embryo formation, work expertise and communication with infertile and low-fertility patients and PCOS.

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