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Jar cell response to oxidative stres in an *in-vitro* model

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In this study, the response of choriocarcinoma cells (JAR) to tumor necrosis factor-α (TNF-α) mediated oxidative stress was searched with the intention of offering new approaches for placental pathologies. Cells were cultured in DMEM containing 10% FBS in a humidified incubator at 37˚C with 5% CO_2. Time and concentration depended preliminary experiments were performed. The effects of TNF-α (100ng) on NF-κB pathway, cell proliferation and apoptotic cell death and the effect of pentoxifylline (PTX) (10 mM) on TNF-α mediated NF-κB expression in choriocarcinoma cells were investigated by immunocytochemical tecniques. Cell proliferation rate was detected by PCNA, on the other hand determination of apoptotic cells was performed by anti-caspase-8. Staining intensities were semi-quantitatively evaluated by HSCORE. As a result of immunocytochemical staining, we determined that NF-κB expression was significantly changed at both nuclear and cytoplasmic levels according to the application time of TNF-α. TNF-α induced nuclear NF-κB levels was significantly lowered in choriocarcinoma cells when TNF-α was combined with PTX. In only PTX applied group, there was no nuclear NF-κB immunoreactivity in these cells.According to our results, PTX may be a potent therapeutic agent targeting NF-κB related signalling pathways.

Biography

Meral Koyuturk graduated from medical faculty on 1995 than she has completed her PhD in Histology and Embryology at the Istanbul Medical Faculty of Istanbul University. She attended Postdoctoral studies in Medical Faculties of Kadir Has University and Istanbul Bilim University. She has been working in the Cerrahpasa Medical Faculty of Istanbul University for the four last years. She has published book chapters and papers in reputed journals.

The magnitude of the occupational cancers: What is the best therapy?

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I'd like to address occupational cancer as a disorder that is almost always preventable and non-curable. Nearly 20 percent of all cancers are the result of exposures at work. Among hundreds of thousands of chemicals that are used in workplaces worldwide, unfortunately 96 % of them haven't been thoroughly tested for health risks. Tens of thousands of workers generally have to die before scientific studies identify a workplace cancer problem. That means there is an expanded field to research on occupational cancers or carcinogens in collaboration with other groups. In an Iranian national report by ministry of health, skin cancers are the most common occupational cancers & occupational & environmental carcinogens are responsible for about 152000 deaths in a year. Our Strategy for occupational cancer therapy has made a public stand in favor of Primary Prevention. These strategies include: improved surveillance program; community & worker education and action; industry reductions in carcinogen use; better information disclosure and labeling; and government intervention in the form of new regulations and policy. If all carcinogen use in the workplace stopped today, there would still be a working generation and hundreds of thousands of retired workers that have already faced some level of risk. For this reason, we are also arguing for more effective recording of exposures, better recognition & therapy of the link between work and health. So we also need secondary and tertiary prevention.

Biography

M Aghilinejad is Associate Professor & studied Occupational Medicine for 16+ years, during which he authored 5 books & published more than 30 articles in internal & external journals. He served on the editorial boards for the *Occupational Medicine*, *Journal of* Occupational Health, and the *Journal of medical science (Razi)*. He is a member of the Scientific Advisory Committees for the Occupational Medicine and the Occupational Medicine Scientific Society, and has served on review committees for the Ergonomic.