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QRT-AAGEL-Quantitative real time pcr analysis of apoptotic gene expression in chronic lymphocytic leukemia patients and their relationships with chemosensitivity

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To determine the role of Bcl-2 and p53 apoptosis related genes expressions in chronic lymphocytic leukaemia (CLL) patients concerning the response to different chemotherapy regimens and number of treatment courses. The study conducted on 55 CLL patients (44 CLL and 11 CLL/SLL; small lymphocytic leukaemia) and forty healthy individuals as control, at Hiwa Hospital of oncology & haematology in Sulaimaniyah during three-month period, October 1st- Dec 13th 2013. The RNA was extracted by exploitation total RNA extraction kit, treated with DNAse, then cDNA was synthesized and qRT-PCR used to analyze anti-apoptotic Bcl-2 and tumour suppresser p53 gene expressions. CLL/SLL showed higher Bcl-2 and p53 gene expression than CLL. CLL patients showed one-third increase in Bcl-2 gene expression compared to healthy controls ($p<0.05$), and one-half decrease in p53 gene expressions ($p<0.05$). Bcl-2 gene expression was higher, particularly, for those who were treated with higher range of treatment courses and fludarabine cyclophosphamide rituximab (FCR) regimen. P53 gene expression reciprocally related with Bcl-2 and vice versa. In conclusion, the results of this study indicated that both of the anti-apoptotic Bcl-2 family members and additionally the tumour suppresser p53 may be thought-about as a result of the key choices of cancer and significantly contributes to the impact of current treatment modalities on cancer cells. Moreover, a marked role for p53 gene in the chlorambucil resistance in CLL is elucidated.

Biography

Hiwa K Saaed currently the Dean of The School of Pharmacy, Faculty of Medical Sciences at the University of Sulaimani since 2010, where he has been a faculty member since 2007. He is currently a lecturer of Pharmacology, Toxicology, and Communication skills in Pharmacy Practice. Hiwa K Saaed received his B.Sc in pharmacy and a Higher Diploma in Clinical Pharmacy from the College of Pharmacy and M.Sc and Ph.D. (1st Rank) in Clinical Pharmacology and Toxicology from the College of Medicine University of Baghdad. He has over 20 years of experience in Pharmacy practice/ Hospital and Community settings. He is a director of Joint Higher Diploma (in Clinical Pharmacy) Studies with Ministry of Health KRG-Iraq, since 2010. His academic research explores the different aspects of Pharmacodynamics and –kinetics; permeability of Hydatid (Echinococcus granulosus) Cyst to drugs, GABA Receptor, Apoptotic gene expression in Leukemic patients... etc. He is supervising several postgraduate students in the area of clinical and basic pharmacology leading to MSc in Pharmacology and higher Diploma in Clinical Pharmacy. He is a member of the UniversityCouncil of Sulaimani, Scientific Promotion Committee of Faculty of Medical Sciences, Federal InternationaPharmacistPharmacis, Royal Pharmaceutical Society, Syndicate of Iraqi Pharmacists and Kurdistan Pharmacists Associations and Faculty Affiliate of College of Pharmacy at Belmont University, Tennessee USA.

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