

Epstein Barr Virus- Encoded Small Untranslated RNAs (EBERs) in Relation to Translational Expression of P27 Tumor Suppressor Gene in Patients with Bladder Tumors/Mid-Euphrates-Iraq

Shakir H. M. Al-Alwany¹, Ausama Abed-Alkadum Alajeely²,
Zainab A. Abbas³, Saad H. M. Ali⁴, Ruqaya M. J. Awadh⁵,
Ahmed A. Abed-Alzuwaid¹

¹ College of Science /Babylon University, Iraq

² College of Basic Education /Babylon University, Iraq

³ Al-Kindy Teaching Hospital /Ministry of Health, Iraq

⁴ College of Medicine / Baghdad University, Iraq

⁵ College of Science for women /Babylon University, Iraq

Abstract : This study was designed as retrospective research. A total number of (60) formalin-fixed, paraffin embedded bladder tissues were included. Among these cases fifty (50) tissue blocks with bladder neoplasia were furtherly divided into two groups: Thirty (30) tissue blocks with invasive bladder cell carcinoma and twenty (20) tissue blocks from cases with benign bladder tumor. In addition, ten (10) bladder tissue blocks without any significant pathological changes (apparently healthy) were included as a control group for this study. The age of these individuals (patients and control groups) were ranged between 18 and 72 years. Histopathological sections were made for these bladder biopsies and stained by hematoxylin and eosin for final definitive diagnosis. For detection of EBV, ultra sensitive version of In Situ Hybridization (ISH) method was used while the translational expression of P27 gene was immunohistochemically demonstrated. Positive EBV-EBERs -ISH reactions in malignant bladder tissues was detected in 13 out of 30 (43.3%) and in 20% (3 out of 20) of the benign bladder tissues. No positive - ISH reaction for EBV-EBERs was observed in the control bladder tissues. Statistically, the differences between the percentages of positive EBV -EBERs -ISH reactions in bladder cancer group with either benign bladder tumors or control groups are highly significant (P value = < 0.0001). Positive immunohistochemical reactions for P27 protein were observed in 16 cases (53.3 %) of bladder carcinoma and in 7 cases (35%) benign bladder tumors while the control groups showed negative P27 immunostaining reactions.

Key word : EBERS-EBV. P27 Bladder Tumor. ISH . IHC.