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Association of long noncoding RNA and c-JUN expression in hepatocellular carcinoma patients

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Background: Long noncoding RNAs (*lncRNAs*) have emerged as key elements in modulating gene expression in different biological contexts. Accumulating evidence indicates that *lncRNAs* are strongly implicated in hepatocellular carcinoma (HCC) development and progression.

Objectives: Long non coding RNA-urothelial cancer associated 1 (*lncRNA-UCA1*) and cellular jun proto-oncogene (*c-JUN*) have been scheduled in this study to discuss their possible association in HCC patients based on bioinformatics tools and clinical validation.

Patient & Methods: We used quantitative real-time PCR (QPCR) to evaluate the expression of *lncRNA-UCA1* and C-JUN in serum of 70 patients with HCC, 32 patients chronic hepatitis C (CHC) and 38 healthy subjects and their correlation with different clinicopathological factors. The prognostic significance of *lncRNA-UCA1* and c-JUN were tested by Kaplan-Meier survival analysis.

Results: The expression of *lncRNA-UCA1* and C-JUN was positive in 91.4% HCC patients with strong discriminating power between HCC and healthy subjects and CHC patients as well. The median follow up period was 29 months. The survival analysis showed that both *lncRNA-UCA1* and C-JUN were independent prognostic factors. Of note, we identified C-JUN expression changes consistent with the *lncRNA-UCA1* target regulation.

Conclusion: Our study sheds light on the possible role of *lncRNA-UCA1* and C-JUN mRNA as promising diagnostic and prognostic markers as well as potential therapeutic targets in HCC.

Biography

Ahmed E M Azazy is a fourth year Medical Cadet at Armed Forces College of Medicine (AFCM), active member at International Genetic Engineering Machine (IGEM). He has published three papers in international journals.

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