Osama Saber et al., J Biotechnol Biomater 2017, 7:1(Suppl)
http://dx.doi.org/10.4172/2155-952X.C1.070

Investigating miRNA-661 and ATG4b mRNA expression as potential biomarkers for hepatocellular carcinoma

Osama Saber[1], Mahmoud A Ali[1], Marwa Matboli[2], Nashwa El-Khazragy[2], Nourhan Hossam[2], Ahmed Hamdy[1], Sarah El-Nakeep[2], Ayman El-Sayed Shafei[1] and **Randa Mostafa[1]**
[1]Armed Forces College of Medicine, Egypt
[2]Ain Shams University, Egypt

Aim: In this study, we aimed to examine the statistical association of serum expression of miR-661 and ATG-4b mRNA with HCC based on *in silico* data analysis followed by clinical validation.

Patients & Methods: Bioinformatics prediction was first applied to retrieve the potential miR serving as an epigenetic regulator of ATG-4b mRNA. Real-time quantitative polymerase chain reaction(RT-qPCR) were used to examine the expression of miR-661 and candidate target gene ATG-4b mRNA in 105 hepatocellular carcinoma (HCC) patients, 50 chronic hepatitis C infected (CHC) patients and 45 healthy controls. The prognostic efficacy of the chosen genes was also explored.

Results: The expression of miR-661 and ATG-4B mRNA was positive in 97.14% and 77.14%, respectively. HCC patients with strong discriminating power between HCC and control showed AUC=0.9 and 0.8, respectively. The median follow up period was 28 months. The survival analysis showed that ATG-4b mRNA was not dependent on the prognostic factors. We also found that miR-661 was positively correlated with ATG-4b mRNA in patients 'sera samples.

Conclusion: This is the first report about the considerable clinical use of miR-661 and ATG-4b mRNA in early detection and follow-up of HCC patients.

Biography

Osama Saber is a second year Medical Cadet in Armed Forces College of Medicine (AFCM). He is a member of International Genetic Engineering Machine Foundation. He has published many papers in various reputed journals.

habiba20062001@yahoo.com

Notes: