Journal of Research in Biology

An International Scientific Research Journal

ISSN No: Print: 2231 –6280; Online: 2231- 6299

The examination of miR199b and Hypoxia Inducible Factor 1α (HIF-1α) expression in patients with Acute Myeloid Leukemia cancer (AML) by real time PCR methods

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ABSTRACT:

Blood cancer is related to the blood-forming tissues of the body and Acute Myeloid Leukemia cancer (AML) is one of its fatal and common types. Blood cancer or leukemia covers about 8% of all cancers and is the fifth common cancer of the world. Micro-RNAs (miRNA) are a small group of non-coding small RNA suppressing the expression after the target genes transcription by the imperfect pairing of the bases with the un-translated region '3 ('3-UTR). HIF-1 transcription factor (Hypoxia Inducible Factor-1) plays an important role in physiology and pathology. Overexpression of HIF-1 has been viewed in many types of cancer including blood cancer. In tumor cells, the expression of the genes affecting angiogenesis, cell cycle, and its metabolism is controlled by an inducible factor with Hypoxia-1 (HIF-1). Recently, description of the molecular characteristics of angiogenic pathways introduces this factor as a key factor of the transcription of these molecules' regulation. In this study, the expression of miR199b and HIF-1 in AML is examined in 30 patients and 10 healthy persons as a witness. It was observed that expression level of miR199b in AML reduced, while HIF-1 overexpressed.

Keywords:
MiR199b, HIF-1, Leukemia, Acute Myeloid Leukemia (AML).

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