EXPRESSION OF THE PUTATIVE TUMOR SUPPRESSOR GENE GRAVIN IN ACUTE LEUKAEMIAS: CLINICAL IMPORTANCE AND PROGNOSTIC VALUE. BY REAL-TIME QUANTITATIVE PCR.

A thesis Submitted for Partial Fulfillment of Master Degree in Clinical & Chemical Pathology

By

Dr. Mona Mohi El-Din Taha Kandel
Blood transfusion center, faculty of Medicine, Cairo University

Under Supervision of

Prof. Dr. Aisha Mostafa Abd El-Rahman

Professor of Clinical and Chemical Pathology
Faculty of Medicine, Cairo University

Dr. Hanan Nour Raslan

Assistant Professor of Clinical and Chemical Pathology
Faculty of Medicine, Cairo University

Dr. Ahmed Amin Heikal

Lecturer of Internal Medicine
Faculty of Medicine, Cairo University

Faculty of Medicine
Cairo University
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List of Abbreviation

ADH	Antecedent hematological disorders
AKAP	A kinase anchor protein
ALL	Acute lymphocytic leukema
AML	Acute myeloid leukemia
APML	Acute promyelocytic leukaemia
aPTT	activated partial thromboplastin time
ATL	Adult Tcell lymphocytic leukemia
BC	Blastic crises
BRCA1	Breast Cancer Gene 1
CD	Cluster of differentiation
Cdk	Cyclin-dependent kinase
cDNA	Complementary DNA
CLL	Chronic lymphocytic leukemia
CML	Chronic myeloid leukemia
CNS	Central nervous system
CR	Complete remission
CT	Cycle threshold
DIC	Disseminated intravascular coagulopathy
DNA	Deoxyribose Nucleic Acid
dsDNA	double-stranded DNA
FAB	Fench-American-British (FAB)
FISH	fluorescence in situ hybridization
FRET	Forster Resonance Energy Transfer
GC	Guanosine cytosine

GDP	Guanosine diphosphate
GTP	Guanosine triphosphate
HLA	Human leucocyte antigen
HNPCC	Hereditary Nonpolyposis Colorectal Cancer
HTLV	Human T cell Lymphocytic virus
IH	in situ hybridization
IL	Interleukin
LC	Light cycler
LDH	Lactate dehydrogenase
MDS	myelodysplastic syndromes
MLL	Myeloid leukemia lymphoma
MPD	Myeloproliferative disorders
mRNA	Messenger Ribonucleic Acid
PAS	Periodic Acid Schiff
PCR	Polymerase chain reaction
Ph+	Philadelphia chromosome
PML	promyelocytic leukaemia
PR	Partial remission
PRKA	Protein kinase A
PT	prothrombin time
REAL	Revised European American lymphoma
RER	Recurrent Exertional Rhabdomyolysis
RNA	Ribose Nucleic Acid
RT-PCR	Reverse transcriptase-PCR
ssDNA	Single -stranded DNA

TCR	T cell receptor
TDT	Terminal deoxynucleotidyl transferase
TNF	Tumour necrosis factor
TSGs	Tumor suppressor genes
WBC	White blood cells
WHO	World Health Organization
β	beta

Abstract

The aim of this study was to determine the expression of tumor suppressor gene Gravin which belongs to the A kinase anchoring protein family in acute leukaemia patients samples and to explore its possible prognostic importance. In this study real time quantitative PCR was used to determine Gravin gene expression and β Actin was used as control gene. Gravin gene expression was found to be decreased in 100%of patients as compared with control group and it was found that there is significant correlation between its expression and laboratory prognostic markers, prognosis and treatment outcome of acute leukemia patients.

Key words: Acute leukaemia, Gravin, tumor suppressor gene, prognosis**.**