



Evaluation of anti platelet response of
Clopidgrel Drug on coronary heart disease patients

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ABSTRACT

Platelets play a dominant pathogenic role in the development and outcome of acute coronary syndrome(ACS). This syndrome including (unstable angina, ST-elevation myocardial infarction and non ST-elevation myocardial infarction). Aspirin therapy in combination with clopidogrel is today still the recommended platelet inhibitory treatment regimen for management of high risk patients presenting with (ACS).Platelet aggregation is tested in the presence adenosine 5-di phosphate (ADP) using platelet aggregometer .

The present study was done to evaluate the anti platelet response of clopidogrel in patients with (ACS).

Our study revealed statistically significant difference between control and study group as regard to platelet aggregation levels . The mean of platelet aggregation among diabetics was higher than non-diabetic in both groups.

The results supported that dual antiplatelet therapy(aspirin plus clopidogrel) in acute coronary syndrome had a potent effect on platelet aggregation without significant increase in the risk of bleeding.

Key words:

Acute coronary syndrome ,Adenosine 5- Di phosphate (ADP) , Aspirin, clopidogrel, platelet, platelet aggregation.

List of Contents

Title	Page
• List of Abbreviations	I
• List of Tables	VI
• List of Figures	VIII
• Introduction	1
• Aim of the Work	3
• Review of Literature:	
o Chapter (1):Platelets	4
I. Platelet biogenesis	4
a. Megakaryocyte maturation	
b. Proplatelet formation and platelet release	6
II. Platelet Morphology	8
a. Platelet surface	9
b. Platelet membranous systems	9
c. Platelet cytoskeleton	10
d. Platelet Granules.....	11
III. Physiological role of platelets.....	14
a. Platelet activation	15
b. Platelet adhesion.....	21
c. Platelet aggregation	22
d. Platelet secretion	23
o Chapter (2): Acute Coronary Syndrome	25
a. Definition.....	25
b. Pathology of coronary heart disease	28
c. Pathogenesis of ACS	31
d. Clinical picture of A C S	35
e. Cardiac bio marker of necrosis.....	36
o Chapter (3): Antiplatelet drugs	43
I. Anti platelet agent classes.....	43
II. Aspirin.....	49
a. Mechanism of action.....	49

Title	Page
b. Aspirin resistant.....	51
III. Clopidogrel.....	58
a. .Mechanism of action.....	58
b. .Pharmacodynamics.....	58
c. .Safety and tolerability.....	61
d. Interaction of clopidogrel with other drugs	63
e. Clopidogrel resistants.....	64
f. Anti platelet therapy guide line in UA/NSTEMI...	66
• Subjects and Methods	70
• Results	83
• Discussion	103
• Summary and Conclusion	112
• Future consideration	116
• References	117
• Arabic Summary	

List of abbreviations

ADP	adenosine diphosphate
AA	Arachidonic acid
ACC	American College of Cardiology
ACE	Angiotensin-converting enzyme
ACS	Acute Coronary Syndrome
AHA	American heart Association
ASA	Acetyl salicylic acid
AST	Aspartate aminotransferase
ATP	Adenosine triphosphate
AUC	Area under the curve
BNP	B-type natriuretic peptide
CABG	Coronary artery bypass graft
c AMP	Cyclic adenosine monophosphate
CAPRIE	Clopidogrel Versus Aspirin in Patients at Risk of Ischemic Events
CBC	Complete blood picture
C D	Cluster diffrentiat
CHARISMA	Clopidogrel for High Atherothrombotic Risk and Ischemic Stabilization, Management and avoidance

CHD	Coronary heart disease
CK	Creatine kinase
CK MB	Creatine kinase muscle-brain fraction
COX-1	Cyclo-oxygenase1
CRP	C-reactive protein
CT	closure time
CURE	Clopidogrel in Unstable Angina to Prevent Recurrent Events
CYP450	Cytochrome P450
DB	Dense body
DBP	Diastolic BP
DM	Diabetic mellitus
DMS	Demarcation membrane system
ELISA	Enzyme Linked Immunosorbent Assay
EPI	Epinephrine
FDA	Food and Drug Administration
GI	Gastrointestinal
GMP	Glucose monophosphate
GPCRs	G protein-coupled receptors
G P	Glycoprotein
GRACE	The Global Registry of Acute

	Coronary Events
H F	Heart failure
5HT2A	5 hydroxy treptophan 2 A
INR	International normalized ratio
LAMP	lysosomal associated membrane protein
LDH	Lactate dehydrogenase
LTA	Light transmission aggregometry
LV	Left ventricle
2-MetADP	2-methylthio-ADP
MI	Myocardial infarction
MO AB	Monoclonal antibody
NQMI	non Q wave elevated myocardial infarction
NSAID	Non-steroidal anti-inflammatory drugs
NSTE-ACS	Non ST elevation acute coronary syndrome
NSTEMI	Non ST-segment elevation myocardial infarction
P- value	Probability value (Probability of chance) (significance)
PAR	protease activator receptor
PCI	percutaneous coronary intervention

PDGF	platelet derived growth factor
PF4	platelet factor 4
PFA-100	platelet function analyzer-100
PGG2	prostaglandin G2
PGH2	prostaglandin H2
PKC	protein kinase C
POC	Point-of-care assays
PP	Pseudopodium
PPP	platelet poor plasma
PRP	platelet rich plasma
Q-wave MI	Q wave myocardial infarction
RPFA	rapid platelet function assay
Rt-PA	Recombinant tissue plasminogen activator
SBP	Systolic blood pressure
SCCS	surface connected canalicular system
SD	Standard deviation
STEMI	ST-segment elevation myocardial infarction
TEG	Thermo-elastography
TIA	Transient ischemic attack

TGF B1	Transforming growth factor B1
Tpα,TP β	Transprotein α and β
troponin c	calcium binding component of troponin
troponin I	Inhibitory component of troponin
troponin T	tropomyosin binding component
TSP1	ThrmboSPondin-1
TTP	Thrombotic thrombocytopenic purpura
TxA₂	Thromboxane A ₂
VEGF	Vascular endothelium growth factor
VS	Versus
UA	Unstable angina
Vwf	Von willbrand factor
WBA	Whole blood aggregometry
WHO	World health organithation

List of tables

Table No	Title	Page No
Table 1.	Platelet receptors and its agonists.	16
Table 2.	Summary of clinical data of the study and control group.	88
Table 3.	Statistical analysis of Peripheral blood picture of the study and control groups.	88
Table 4.	Statistical analysis of Lipid profile among study and control groups.	89
Table 5.	Comparison of platelet aggregation response to ADP agonist between study and control groups .	89
Table 6.	Comparison of platelet aggregation response in relation to gender among studied groups.	90
Table 7.	Relation between age and percentage of platelet aggregation among case and control groups.	91
Table 8.	Comparison between case and control groups regarding diabetes mellitus as risk factor in relation to platelet aggregation response.	93
Table 9.	Comparison between case and control groups regarding to hypertension effect on platelet aggregation response.	93
Table10	Comparison between case and control groups regarding smoking effect on platelet aggregation response	93
Table11	Relation between cholesterol level and percentage of platelet aggregation among studied groups	94

List of tables

Table12	Relation between bleeding attack and platelet response to aggregation.	96
Table13	Clinical data of the control group (N=10)	99
Table 14	Clinical data of the study group (N=20)	100
Table 15	Laboratory data of the control group (N=10)	101
Table 16	Laboratory data of the study group (N=20)	102

List of figures

Figure 1.	Overview of megakaryocyte production of platelets	5
Figure 2.	Proplatelet formation	8
Figure 3.	Platelet internal structure	8
Figure 4.	diagram showing platelet cytoskeleton	11
Figure 5.	Shape changes during platelet activation	15
Figure 6.	Effect of P2Y ₁₂ platelet receptor stimulation and its role in thrombus formation .	18
Figure 7.	The role of P2Y ₁ receptors in ADP promoted platelet aggregation.	19
Figure 8.	Scheme showing how shear stress may promote vWF-mediated role at sites of vessel injury	22
Figure 9.	Classification of acute coronary syndrome	25
Figure10.	Microscopic findings of normal coronary artery	28
Figure 11.	High magnification of the atheroma.	29
Figure 12.	Severe degree of narrowing in coronary artery.	30
Figure 13.	Different causes of coronary ischemia.	32
Figure 14.	The coagulation cascade.	33
Figure 15.	Mechanism of platelet activation and aggregation	34
Figure 16	Timing of Release of Various Biomarkers After Acute Myocardial Infarction	39

Figure 17.	Mechanism of action of clopidogrel	45
Figure 18.	Mechanism of action and metabolism of Prazugrel	47
Figure 19.	Mechanism of action of aspirin	50
Figure 20.	Mode of action of clopidogrel.	59
Figure 21.	platelet aggregation response to ADP among studied groups	90
Figure 22.	Comparison of platelet aggregation response in relation to gender among studied groups	91
Figure 23-24	Relation between age and percentage of platelet aggregation among case and control groups	92
Figure 25-26	Relation between cholesterol levels and percentage of platelet aggregation among case and control groups	94
Figure 27	Comparison among cases regarding to platelet aggregation in different acute coronary syndrome types	95
Figure 28	Result of platelet aggregation of normal control subject following ADP reagent showing platelet aggregation(60%).	97
Figure 29	Result of platelet aggregation of study subject (patient taking clopidogrel plus aspirin) following ADP reagent showing platelet aggregation(38.3%).	97
Figure 30	Result of platelet aggregation of normal control subject following ADP reagent showing platelet aggregation(88.32%).	98
Figure 31	Result of platelet aggregation of control group (patient taking aspirin) following ADP reagent).	98