*Sys Rev Pharm 2020;11(12):1068-1077*
A multifaceted review journal in the field of pharmacy

# Early Warning Of Heart Disease And Knowledge Of ECG Cardiac Thrombosis In The Presence Of Risk Factors Surrounding The Patient

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## ABSTRACT

From the evaluation of the clinical and academic results of the continuous work of fatal heart diseases and chronic comorbidities that had the most significant impact on the development of fatal cardiac diseases, we collected 960 patients randomly, young men, women, men and the elderly, in addition to the disease history and the collection of patient files in Samawah General Hospital / and the Specialty Center For endocrinology and diabetes / in Iraq, for a period of one year (2019-2020), the goal is to control heart disease before and after injury, early warning, reduce the mortality rate by setting a mechanism, formula an algorithm, opening the ECG code, and knowing the location of coronary artery stenosis or blockage, clotting, and factors leading to exacerbation Cases, to shorten the distance and speed to complete the diagnosis and treatment for the doctor to work .. and the patient to know his health status, the focus was on the most common cardiac conditions in our country, angina pectoris, coronary syndrome, myocardial infarction, and cardiac attack, stroke , The remnants of war, environmental pollution and psychological stress were monitored and among the factors referred to, they had an impact ... and the work within a diagnostic, therapeutic counseling program with early warning was the focus of research on patients who do not complain of disease but have risk factors for high pressure, high fats and cholesterol, high urea, uric Acid, Cardiac disorders, coronary artery contraction, these cases were treated and placed under the control and according to the periodic review of the patient, but there are more difficult patients that appear on them with risk factors for disease development, laboratory, radiological and cardiac analyzes, and we used various drugs and put them under the control by organizing their lifestyle, dietary behavior and sports to be Under control and within the early warning program, As for patients who already have cardiac diseases and accompanying chronic diseases (bronchial asthma, hypertension, enlargement of the heart, heart failure, Rinal failure, diabetes mellitus, these definitely take the most medical effort, care and attention, and various medications to avoid death and change the lifestyle, especially in countries. Low and middle income we used the system (ASA) Analysis and symmetry Algorith:[ ∑- Primary PM == Algorithmic ECG analysis + biomarker analyzes & O2 and pulls + risk factors + x-ray chest + age + medication]. The first algorithm for cases that show cardiac disease, The second algorithm formula"(ASA ) Analysis and symmetry Algorithm :[ ∑ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk factors + chest x- Ray + Age + complications + medication].Applied to the most serious patients who have heart disease and chronic disease, risk factors, cardiac catheterization, and open heart operations (GABG), ( Intensive care unit ) ,In addition to the use of various life-saving drugs, and according to the pathology, to inform early heart disease and to warn against exacerbation of cases before and after the injury, within a rigorous and studied cardiac program, where the results were satisfactory and significant in controlling heart diseases and reducing the mortality rate as follows: Therefore, the results were clear, with a decrease in the overall assessment of cardiac diseases for youth, women, and men, of different ages in the":(350 patient) youth - 37% reduction I.H.D ,Myocardial infraction, stable blood pressure, ( RR) 0.70 ; 95% CI 0.52 to 0.90 ; p = 00.1), 17% lower risk of stroke, 33 % lower total risk of CVD, CHD, 22% HbA1C Diabetic mellitus stable , 42% lower lipid profile, 44% decrease in the incidence of fatal or nonfatal myocardial infarction , 6% reduction BMI , 72% CAC . As for the women ( 250 patient), They were less likely to have heart disease 32% reduction IHD, MI, Angina ,Bp, lipid profile, 22% reduction stroke (heart ,brain ), CAC, CHD, D M, As for the men (360 patient ) Those who have heart disease and chronic diseases and their age is over 50 years 36% decrease I.H.D, MI, NSTEMI, STEMI, The incidence of fatal Stroke .46% CAC, 32% decrease Neuropathy, Nephropathy, retinopathy ,HBA1c ,BP, CHD, 52% decrease mortality and morbidity , 3% PCI coronary revascularizations by (95% CI 16% to 59%) , 0.001% Permanent pacemaker , 21% decrease Heart failure .

**Keywords:** Coronary Syndrome, System (Analysis and symmetry algorithm (ASA), Patients, ECG (electrocardiogram), PCI (percutaneous coronary intervention), cardiac Embolism, cardiac biomarkers ,Cardiac drugs ,Cardio protective drug ,STEMI, NSTMI, Formula .

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## CARDIO PROTECTIVE DRUG

They are drugs that carry all the mechanisms and means that strengthen, enhance, and contribute to maintaining or even preventing damage to the heart muscle ( Antiplatelet,ACE,ARB$_{s,}$B-Blockers,statin, vit,omega 3, Food ,Heart protective medicines .

## OBJECTIVE

From clinical work to sensitive variants of rapid disease (cardiac biomarkers), exacerbation of heart disease, partial and total coronary syndrome, and cardiomyopathy (Sub Epicedial, Sub Endocardial) due to associated diseases .. to early control of heart and disease with an algorithm combining this with An Formula that

leads to a truly significant reduction in heart disease, morbidity and mortality.

## INTRODUCTION

One of the most common heart diseases in the total deaths in our society is angina pectoris, which appears as a symptom complex resulting from transient myocardial ischemia [1.6] and constitutes a clinical syndrome, not a disease. It may occur when there is an imbalance between supply and demand for myocardial oxygen. Coronary sclerosis is the most common cause of angina. However, the symptom may also be a manifestation of other forms of heart disease,[11,14] especially aortic valve disease, hypertrophic cardiomyopathy, valve disease, and chronic diseases, especially diabetes, stress and its complications for patients that are the real risk to saving lives.[3]People since the beginning of the pain that appears on the patient, pain in the chest Pain , such as an arrow, heaviness or tingling in the chest, spreading to the left hand with numbness as a result of narrowing, contraction, or a blood clot that blocks a place in the artery Coronary and its left and right branches that supply the heart with blood and oxygen[5,8] . And when these reasons are present, a lack of oxygen and blood supply to a specific place in the heart arises.The pain is due to the accumulation of the lactic acid complex due to the lack of oxygen (the tissues and cells of the body need to burn glucose in the cytoplasm to obtain energy in the presence of oxygen liberated ATp 8 in a process called glycolysis, [15]in the absence of oxygen it is released ATp 2 and the lactic acidaccumulates and causes the pain, Especially when exertion, excessive movement and psychological pressure, the coronary artery supplying the main heart, i.e. narrowing, clotting, shrinking, so the heart attack arises - the pain is rapid and sudden with the heart's thirst for oxygen Ischemic heart disease Emotional distress is a very common cause of atypical chest pain. It should be considered that there are features of anxiety or neurosis, it is important to remember that the possibility of developing heart disease is a frightening experience, especially when it is responsible for the death of a friend or close relative; So psychological and organic traits often coexist. Anxiety can amplify the effects of organic diseases and can create a very confusing picture. Patients who think they have heart disease are sometimes afraid to exercise and this may make it difficult to prove their true endurance, [4,10]Therefore, heart disease appears in a rapid attack that may *lead* to death, and among the most important cases is angina pectoris, which is divided as follows:[9]

Picture: 1

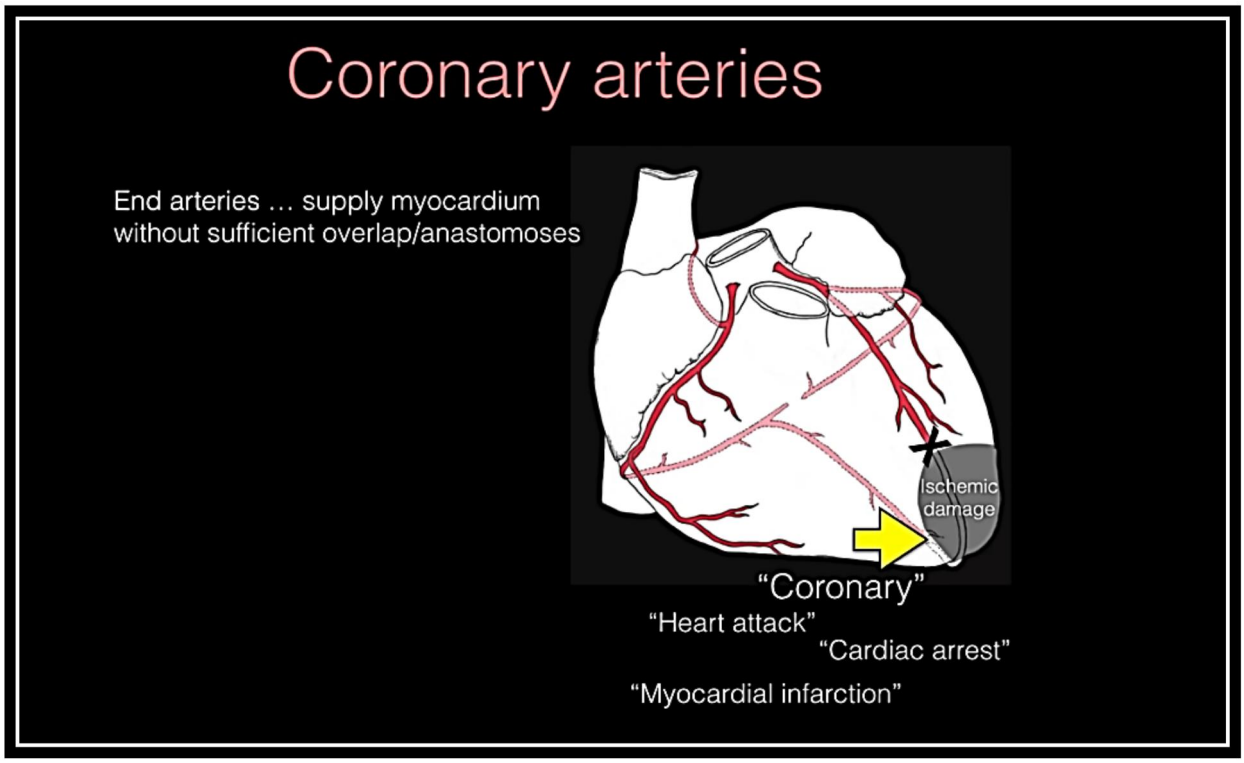
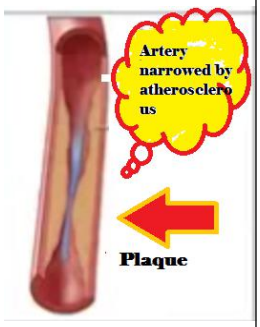


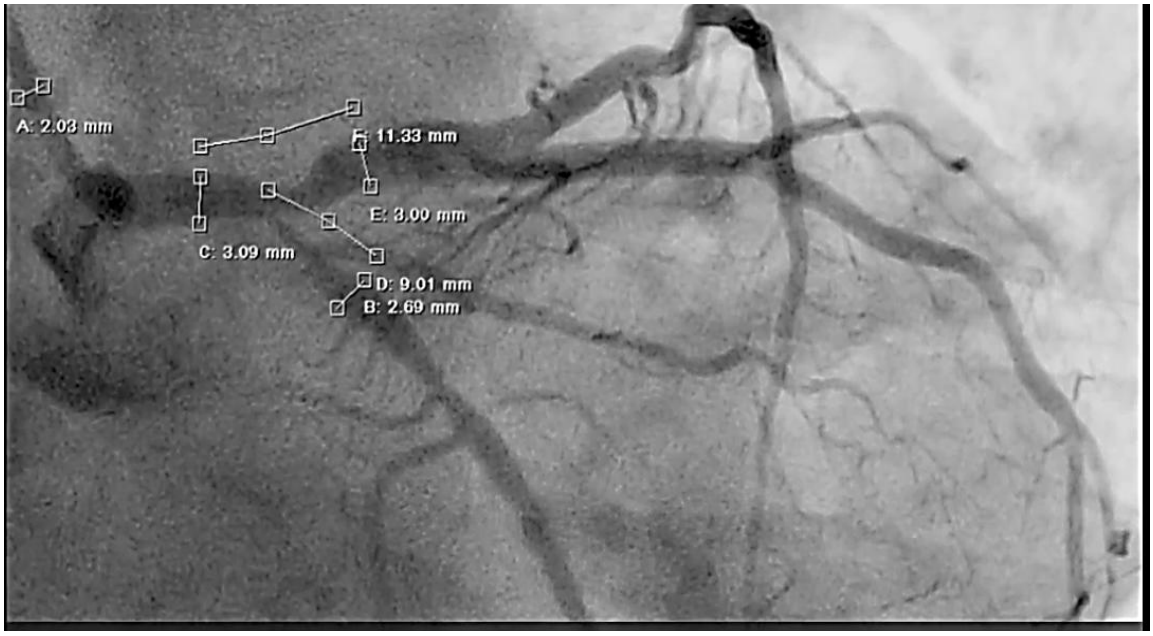

Table N:1Types of angina "

| | Stable Angina | Unstable Angina | Variant Angina |
|---|---|---|---|
| Other Names | • Classical Angina.<br>• Typical Angina.<br>• Exertional Angina.<br>• Effort Angina . | • Crecendo Angina.<br>• Preinfarction . | • VasospasticAngina<br>• Prinzmetals Angina<br>• Anginainverrsa . |

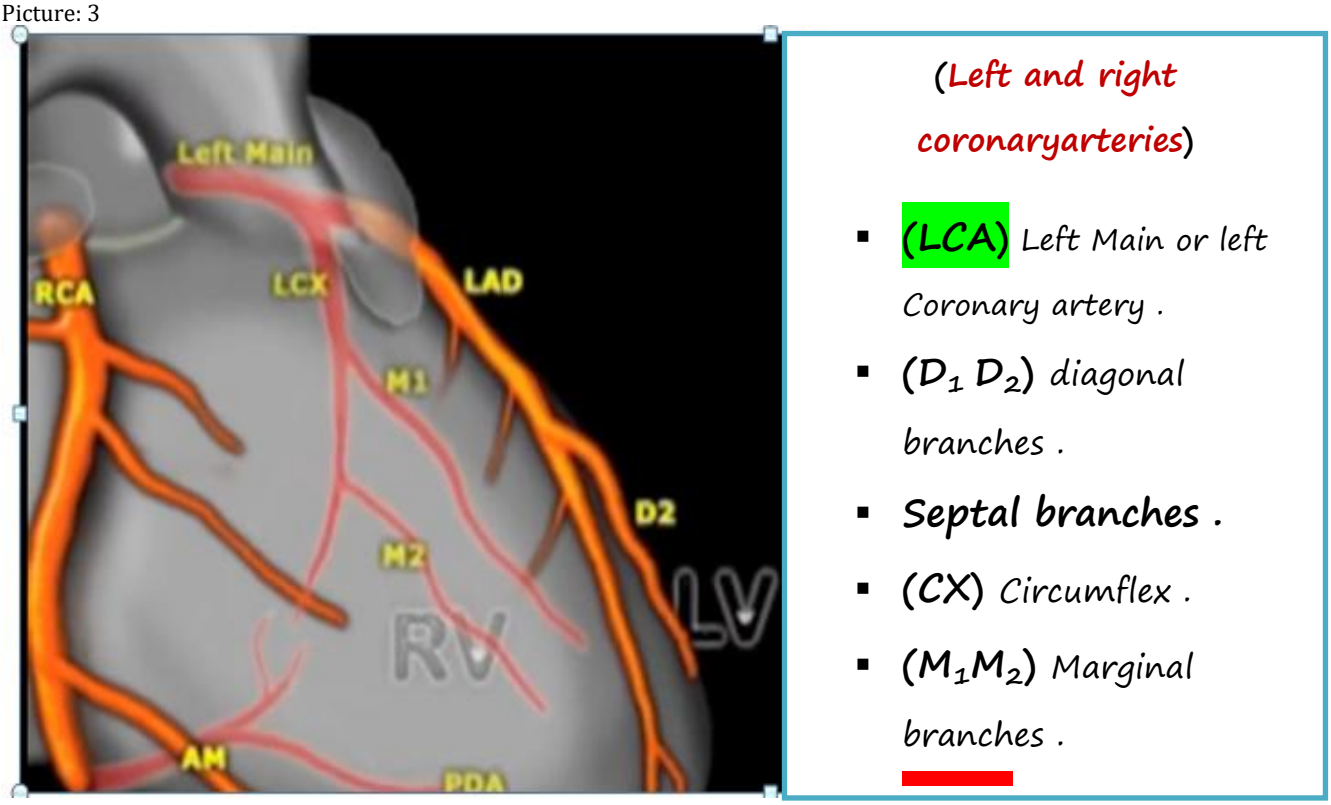
| | | | |
|---|---|---|---|
| Cause | • Coronary Atherosclerotic<br>• Coronary heart disease<br>  | • Small blood clot in artery .<br>• Or Coronary Vasospasm .<br>• Or atherosclerotic plaque<br>  | • Coronary vasospasm .<br>  |
| Distribution | Most common | Second most common | Rare |

From the place where the patients are received, a random picture in an emergency or hospital, consulting clinics and patient reviews, we ask patients who have complications and risk factors threatening their health life [12,13]. pressure, angina pectoris, coronary heart disease, ischemic attacks, strokes, peripheral vascular disease and left ventricular hypertrophy,[7]Retinopathy due to stress and chronic diabetes are the patients that must be received and placed on Strict control of patients to prevent the aggravation of their condition and put them according to international standards and medical guidelines, the other type is patients who do not suffer from cardiovascular disease and who have high cholesterol>(320 mg / dl ), LDL, Trig[16],High blood pressure and cumulative diabetes (7% HbA1C)Above, kidney disease, increased urea and uric Acid .. which show cardiac symptoms on them without a complaint [17].. These patients must receive treatment and immediate medical advice, protect them from diseases, and follow them fully before the disease strikes, and early warning of the presence of heart disease and life-threatening strokes through the work of the system Analysis and Symmetry Algorithm ( A.S A),[21,22]ECG analysis and algorithm measurement to help predict disease, measure the pulse and the amount of oxygen in the blood, X-Ray, and ECO Study the shape of the heart and the ECG in the presence of (hypo-kinase , the presence of myocardial infarction, valve integrity, heart disease, risk factors, etc.)The symptoms that appear on the patient, the patient's age are all combined with a formula( A.S A)One early curbing and prevention of leading heart strokes .. from a medical and practical point of view and based on the recommendations of the World Health Organization and the American Heart Association. And scientific references ... especially coronary heart disease[18,19](Atherosclerosis and strokes) and dealing with them to enforce people's lives early ... and to identify with a normal, healthy person, for these reasons to push the risk from a living reality, especially in middle-income countries, in a safe and fortified way that preserves people's lives.[20]

Picture: 2




Picture: 3




## MATERIALS AND METHOD

Given what caused by sudden debilitating and fatal heart diseases, we started the clinical academic research by collecting files and history of patients and reviewers for outpatient consultations for patients for the period (2019-2020) on the number of patients 960 patients of different ages, randomly men and women ages between (20 - 70) years for evaluation and research Early on the fact that we see from controlling various heart diseases from our work in the General Teaching Hospital / and the Specialized Center for Endocrinology and Diabetes in the city of Samawah / Iraq The strategic work on low-risk patients was early ( Primary –PM )And the more serious patients and carry multiple chronic diseases (Secondary - SM) - we have relied on a system that identifies healthy human(ASA) Analysis and symmetry Algorithm)ASA=**[1 ∑- Primary PM = Algorithmic ECG analysis + biomarker analyzes & O2 and pulls + risk factors + x-ray chest + age + medication].** The second formulaASA =[2 **∑ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk factors + chest x- Ray + Age + complications + medication] .**If the low-risk patients

do not complain of factors threatening only lifestyle regulation, psychological state, lipid regulation, anticoagulants, blood pressure, and cardiac disorders of nervous origin as a result of social situations and violent conflict of life, especially the youth group .. As for patients who do not know and are clearly prepared, atherosclerosis and obesity High blood pressure, increased urea, increased uric acid, bouts of fatigue and stress, shortness of breath, other comorbidities related to the respiratory system, liver, stomach, diabetes, heart disease, psychiatric diseases .. Those who simply apply the first equation (Primary – PM) as Explained in the form of the equation and we use the program of analyzes and examinations and direct the patient towards a healthy life according to a periodic schedule that the patient reviews and we used medicines according to the patient's need Patient (for fat reduction, Rosvistatin 10 mg, 20 mg, 40 mg once daily), (for fats, especially triglycerides, fibrates 600 mg once a day for one month only), (omeprazole 20 mg for gastric acidity), (colonaspasmin pills for colic spasms), (losartan 50mg for Pressure) and (Metoprolol 50 mg pressure + heart), (diltiazem 50 mg vasodilator + heart disorders), (Denxit 5 mg anti-anxiety), (Alloperinol 100,300 for high level of uric acid in the blood), (Angesid (Nitrate) sublingual 0.5 mg) (Aspirin 100 mg), (Plavix 75mg), and the most important cases have the onset of predisposition, reaction, or myocardial infarction (troponin, muoglobolin, CK-MB creatinephosphykinase)Safety valve for us to evaluate, and make sure in an Echo – study it, cardiac emboli, pressure, presence of hypokansia in the ventricles and various heart diseases, if any, we used drugs that require more attention to cases, Which are placed under the control and a precise treatment system for the golden triangle (nitrate, beta-block, anti-aggregate ), in addition to the dimensions of the risk factors and the decipherment of the ECG code, chest-x- rays, heart and lungs shape and analysis, So the results were in the patients' recruiting and the extent of their commitment to follow-up and the clear actual early safe improvement according to The formula (Primary – PM) is as follows:

Tablet N: 2 ( Primary –PM )

| | Drugs | Impact on the patient | Results for patients |
|---|---|---|---|
| 1. | Rosovestatin tab . | Cholesterol +++<br>LDL ++<br>HDL +<br>Trig + | (-) 22%<br>(-) 16%<br>Increase 10%<br>(-) 8% |
| 2. | Fibrate drug | Cholesterol +<br>LDL +<br>HDL +<br>Trig+++ | (-) 10%<br>(-) 9%<br>(+) 10%<br>(-) 42 % |
| 3. | Losartan tab 50mg | +++ | 75% |
| 4. | Angised tab 0.5 mg | ++ | 60% |
| 5. | Metaprolol tab 50mg | ++ | 70% |
| 6. | Asprin tab 100mg | +++ | 80% |
| 7. | Diltazem tab 50 mg | ++ | 70% |
| 8. | Denxit tab 5mg | +++ | 40% |
| 9. | Alloprenol 100mg | +++ | 60% |
| 10. | Enalaril tab 10,20mg | +++ | 65% |
| 11. | Lifestyle and food | ++++ | %90 |
| 12. | Colonspasmin tab | ++ | %60 |

**( ASA ) Analysis and symmetry Algorithm :**

**$\sum$-Primary PM == Algorithmic ECG analysis + biomarker analyzes & O2 and pulls + risk factors + x-ray chest + age + medication**

Therefore, the results were supportive of working to put the patient in a better condition with the dimensions of the specter of death and the worsening of the situation in the beginning .. and full adaptation by the patient and the doctor to reach control of heart disease, especially coronary artery disease before it occurs.The patient and the doctor can get to control heart disease, especially coronary artery disease, before it occurs.As for patients who already suffer from chronic heart diseases and their accompanying diseases, especially diabetes, coronary artery disease, strokes, heart and kidney failure, liver disease, and respiratory diseases (COBD, bronchial asthma) in addition to other diseases, it is certain here that the treatment is different and more attention is given to all the data and medicines that The patient takes it under our knowledge.We focus on treating chronic diseases by placing the patient under control as much as possible .. And here the second formula is applied**ASA= [2 *$\sum$ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk factors + chest x- Ray + Age + complications + medication ].**Which works for the patient a complete briefing of the diseases, which concern us and focus on fatal cardiac diseases, angina pectoris and coronary artery syndrome, MI, STEMI, STEMN, The change in cardiac sub myocardial, sub epicedial, the change in cardiac electrolyte CL, Na, Mg, K and the myocardial infarction siteAnd damageAnd early delay by performing the biomaker analysis + and for necessity we work for the patient with (PCI) cardiac catheterization or GBAG

surgical intervention, according to the patient's condition,
to end his life first:

Tablet N: 3Early examination-Biomarker Enzyme For myocardial infarction

| | Biomarker | Time | Maximum | Normal | Pathological behavior |
|---|---|---|---|---|---|
| 1. | Troponin T / I 3-4 hours after injury . | 6-8 hours | 12–24 hours | 7–10 days | Troponin scans may detect an increase in the level of troponin in the blood as early as 90 to 180 minutes after myocardial ischemia has occurred. |
| 2. | Myoglobin | 1 hours | 4–12 hours | 24 hours | Nonspecific marker that is no longer commonly used |
| 3. | CK-MB | 4 – 9 hours | 12–24 hours | 2–3 days | CK-MB is more specific to cardiac tissue than total CK. |
| 4 | Post –infraction | 0–24 hours | Post – infraction | | Early coagulative necrosis (> 4 hours) |
| 5. | Post –infraction | 12 -24 hours | | | dark mottling . |
| 6. | Post –infraction | 4–72 hours | 72 hours | 1–3 days | HyperemiaYellow pallor |
| 7. | Post –infraction | -- | --- | 3–14 days | Center yellow-brown, soft |
| 8. | Post –infraction | -- | --- | 14 days to several months | Grayish-white fibrosisscar formation . |
| | | | | | |

The enzyme troponin T found in skeletal muscle fibers and cardiac muscle is It is especially important for the diagnosis of cardiovascular disease and can be measured 3-4 hours after the onset of myocardial infarction. * CK-MB values correlate with the size of the infarct, reaching a maximum approximately 12-24 hours, then normalizing after only 2 to 3 days, making CK-MB a good marker for assessing reinfarction.

Tablet N: 4Algorithmic calculations and the site of myocardial injury on the ECG

| | LEAD ECG | LOCATION | THE LEFT AND RIGHT CORONARY ARTERY |
|---|---|---|---|
| 1. | V1–V2 | Antero (septal) | LAD |
| | V3–V4 | Antero (apical) | Distal LAD |
| | V5–V6 | Antero (lateral) | Diagonal branch of LAD<br>Distal LAD<br>(Left circumflex artery (LCX<br>In rare cases, can also be caused<br>by right coronary artery (RCA) infarct |
| | V1–V6 | Extensive anterior (Leads aVL and I can also be affected ). | Proximal left anterior descending (artery (LAD |
| | V7-V9 | poster lateral | Posterior descending artery(from RCA or LCX<br>Reciprocal ST depressions in V1–3 may also be seen |
| | I, aVL | Lateral | Proximal LCX |
| | II, III, aVF | Inferior | (RCA (more common<br>(Distal LCX (less common |

Proximal left anterior descending artery(LAD), Left circumflex artery (LCX) , Right coronary artery (RCA) , In severe posterior wall infarction, there may not be any ST elevation in the 12-Lead ECG or Reciprocal penetrating myocardial response .

Knowledge and early diagnosis of emergency cases from the presence of a blockage of the coronary artery branch due to a narrowing or blockage of more than 70% to a coagulation necrosis called (stenosis) in the post-stenosis area .. and if it is less than 70%, it is called a partial curettage. And the calculation of age, the dimensions of risk factors and complications as a result of accompanying diseases and the implications of the medicines that the patient takes .. all are present through the equation and changes that occur to the patient and the program. Periodic examination of the patient, preservation of the patient's life and reduction of mortality rates.(Glucophage, Omeprazole Antacids , Mixed insulin, tablet Daonil.Amyral, for Diabetes) (Angisd, Isordindinatriateor mononatrite, beta-block, antiplatelet , anti-coagulant , amlodipine, diltiazem, verapamil, anti-spasmin, , statin, fibrate, aspirin, plavix, heparin Warfarin for stable and unstable angina), (Digoxin, Carvedilol 3.125, Enalapril, Capoten, Losartan, Loop Duretic, in case of heart failure), (Angiotensin Inhibiter I, II , Beta block, Calcium channel Block, for hypertension), Cordarone, and in cases Emergency resuscitation (fibinolytic( throbolytic) (Acetyls( tpA), Streptokinase) Intensive care unit( ICU) and use of cardiac catheter immediately, and in the case of bradycardia less than 50 beat /Minutein the case of heart failure, a pacemaker(Heart regulator) is possible . So the work was Center and focused on heart disease, chronic

diseases control, mortality reduction and application The formula.

Tablet N: 5Results of work for patients who carry chronic diseases with heart diseases according to theformula:

| | AGE | CONTROL CHRONIC DISEASE | MONOTORING TREATMENT | MORTALITY AND MORBIDITY |
|---|---|---|---|---|
| 1. | 20-30 year | + | + | < 0.1% |
| 2. | 30-40year | + | + | < 0.2% |
| 3. | 40-50 year | ++ | ++ | < 0.4% |
| 4. | 50-60 year | +++ | +++ | < 3% |
| 5. | 60-70 year | +++ | ++++ | < 4% |
| 6. | More than 70 years old | ++++ | +++++ | < 5% |
| | | | | |

(ASA) Analysis and symmetry Algorithm) :

Σ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk

[Abbreviations]

[ RR (relative risk), CI (Confidence interval ), CVD (cardiovascular disease ),CHD (coronary heart disease), BMI ( body mass index ) ,CAC ( Control and complication )DM( diabetic millets), IHD (Ischemic heart disease ) ECG ( electrocardiogram) ] .

Therefore, the results were clear, with a decrease in the overall assessment of cardiac diseases for youth, women, and men, of different ages in the":(350 patient) **youth** - 37% reduction I.H.D ,Myocardial infraction, stable blood pressure, ( RR) 0.70 ; 95% CI 0.52 to 0.90 ; p = 00.1),17% lower risk of stroke, 33 % lower total risk of CVD, CHD, 22% HbA1C Diabetic mellitus stable , 42% lower lipid profile, 44% decrease in the incidence of fatal or nonfatal myocardial infarction , 6% reduction BMI , 72% CAC .As for the **women** ( 250 patient), They were less likely to have heart disease 32% reduction IHD, MI, Angina ,Bp, lipid profile, 22% reduction stroke (heart ,brain ), CAC, CHD, D M, As for the**men** (360 patient ) Those who have heart disease and chronic diseases and their age is over 50 years 36% decrease I.H.D, MI, NSTEMI,STEMI,The incidence of fatal Stroke .46% CAC, 32% decrease Neuropathy, Nephropathy, retinopathy ,HBA1c ,BP, CHD, 52% decrease mortality and morbidity , 3% PCI coronary revascularizations by (95% CI 16% to 59%) , 0.001% Permanent pacemaker , 21% decrease Heart failure.

**Table N: 6** **ECGDangerous changes in the Electrocardiogram**

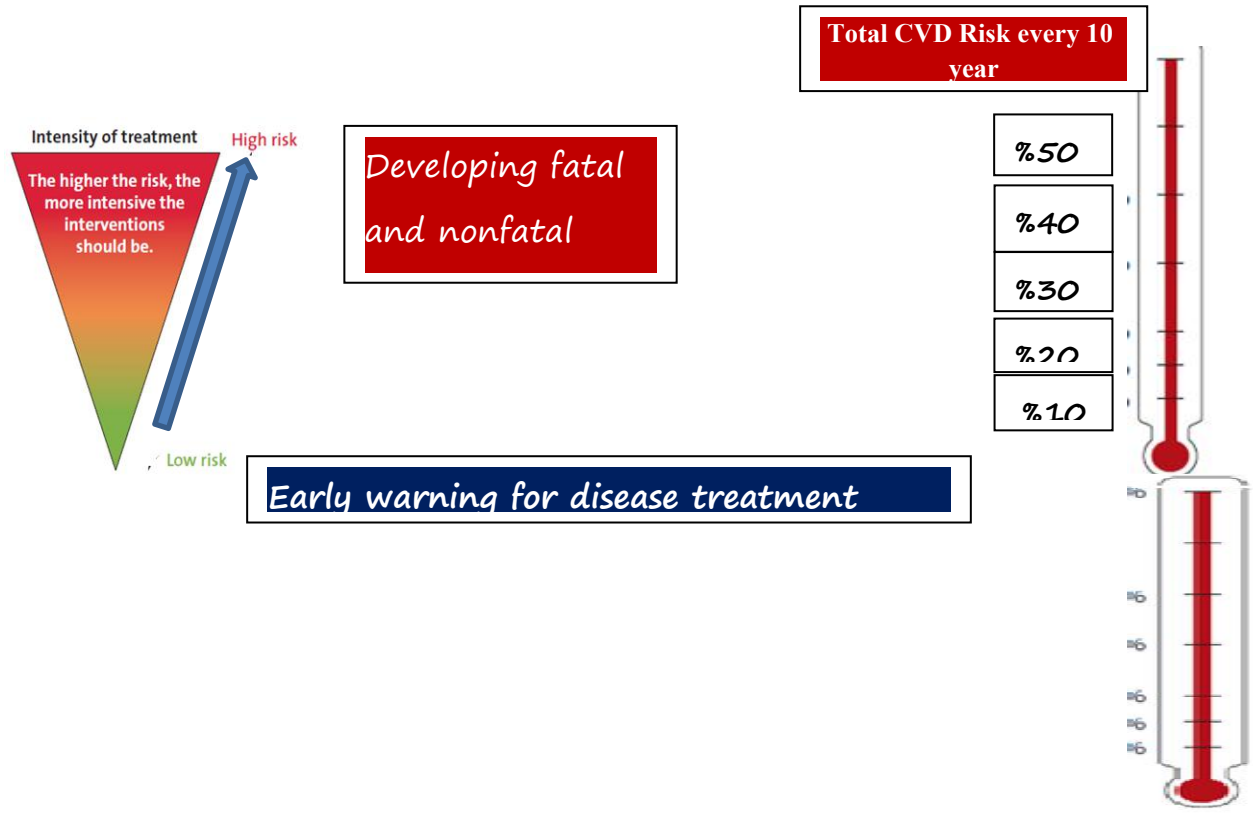
| | ECG | The changes |
|---|---|---|
| 1. | **STEMI :** Acute stage | • Myocardial damage .<br>• T Wave peaked .<br>• ST Elevation in to Contiguous leads with reciprocal ST depression . |
| 2. | Medium stage | • Myocardial necrosis present .<br>• Absence of ( R ) wave .<br>• T wave inversion .<br>• Pathological Q wave . |
| 3. | Chronic stage | • Permanent scarring .<br>• Persistent, broad, and deep Q Wave .<br>• Often in complete recovery of (R) wave .<br>• Permanent T wave inversion is possible . |
| | **NSTEMI** | • No ST elevations present .<br>• Nonspecific changes may be present.<br>• ST depression .<br>• Inverted T wave .<br>• Loss of R wave . |

Non-ST-Segment elevation myocardial infarction ( NSTEMI ) , ST- Segment elevation myocardial infarction STEMI) .

## DISCUSSION

We have worked to collect all the evidence and proof in order to develop our work from the clinical and academic point of view into an advanced program through simple, medium, and heavy disease cases and distinguishing between them and the cases that require ( ICU Intensive care unit ) Our emphasis in the research was the rapid early warning characteristic of sudden and fatal cardiac conditions. Not to reach the patient to bad cases if he adheres to the early program and education for patients

in the hospital and specialized centers of the heart and commitment to changing the lifestyle, diet and physical exercise, our choice is to address various heart diseases and focus widely on angina pectoris, myocardial infarction, coronary artery syndrome, myocardial injury and necrosis due to hardening Arteries, coronary arterial stenosis, loss of elasticity of blood vessels, risk factors, complications, genetic predisposition, and everything related to the heart and its influence on it have been overcome before and after and according to the formula that deals with heart disease with early warning that is limited to cases that require internal, surgical treatment. , Or cardiac catheterization from early detection through diagnosis, And observation and monitoring by checking the patient's effort (Treadmill ) , cardiac stress ,Halter monitor ,ECG, Echocardiography, Biomarkers laboratory analyzes, General analyzes of the human body, vagas nerve stimulation, chest x-ray. CT, MRI, Cardio Angiography, And all the necessary examinations are in front of us before and after applying an formula that determines what to do for the doctor in a quick manner, information and analyzes that help in early detection, if the case is simple that can be treated in the outpatient clinic and periodic review, as for the more difficult cases, an formula must be applied( ASA ) Analysis and symmetry Algorithm **:[∑- Primary PM == Algorithmic ECG analysis + biomarker analyzes & O2 and pulls + risk factors + x-ray chest + age + medication]** . Which tries to open a path for rapid diagnosis and treatment within a program and on the causes and consequences of disease cases quickly. As for the more complex patients who already have heart diseases and chronic diseases, they are more exposed to danger and sudden death, the treatment is different, so we according to the second formula apply it immediately "( ASA ) Analysis and symmetry Algorithm **:[ ∑ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk factors + chest x- Ray + Age + complications + medication]**.And to assess the case, stable or unstable angina or myocardial infarction Stroke, and the pathological background of chronic diseases turns dangerous and critical cases into resuscitation and the necessary procedure, so we shortened the time to follow the patient and analyze the prior results, and with this the importance was the work to save time and effort and the correct diagnosis was a successful work to follow up the patients .. by early detection and arranging the patient for treatment and clear discrimination from Except for other diseases. And heart diseases that target the patient and deplete the state economically ... the program was to collect information and results quickly, especially low and middle-income patients who face living difficulties that are reflected in their health.




## RESULTS

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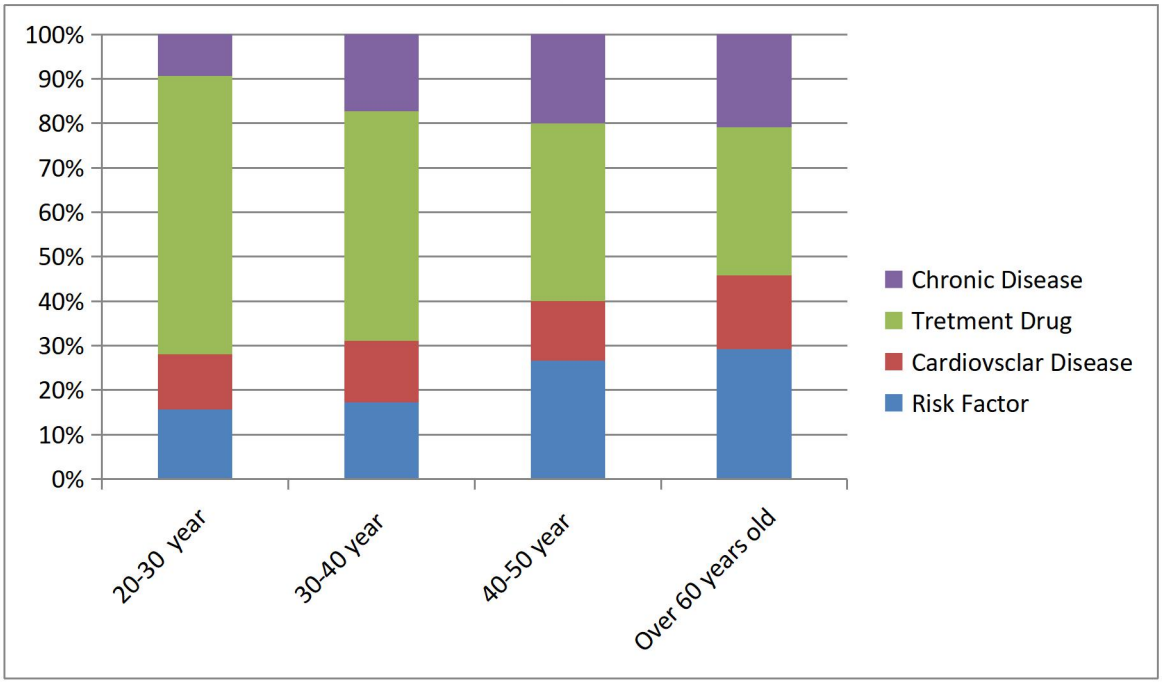
52% decrease mortality and morbidity , 3% PCI coronary revascularizations by (95% CI 16% to 59%) , 0.001% Permanent pacemaker , 21% decrease Heart failure.

## CONCLUSION

From practical basis and academic study,The cases have 960 patients randomly assigned for a year of prevention and prediction of fatal heart diseases before and after their occurrence .. and serious work to develop an formula ( ASA ) Analysis and symmetry Algorithm = [ ∑- Primary PM == Algorithmic ECG analysis + biomarker analyzes & O2 and pulls + risk factors + x-ray chest + age + medication] .That confines and surrounds heart diseases in the diagnosis and necessary treatment of mild and moderate cases, and developing a second formula:"( ASA ) Analysis and symmetry Algorithm :[ ∑ Secondary SM = ECG Algorithmic Analysis+ biomarker analyses & O2 and pulls+ Risk factors + chest x- Ray + Age + complications + medication].For patients who already suffer from cardiovascular disease, coronary artery disease, comorbidities and chronic diseases as a result of their health condition worsening, such as diabetes, bronchial asthma, pressure, stomach ulcers, cardiac catheterization or open heart operations, our work focuses on more widespread diseases, stable and unstable angina, heart attacks and syndrome Coronary artery and myocardial infarction, which most deaths in our country due to lack of early and periodic review, lifestyle, behavior and diet habits, lack of exercise, the psychological state that the patient is going through, the remnants of war and pollution, the environment that exacerbates the situation (Cardiac attic, Stroke) that The patient cannot be delayed and transferred immediately to a unit (Intensive care unit ICU) Because of the patient's failure to reach this bad stage of his condition .. We developed a program for the doctor and the patient that guarantees the patient's health and therapeutic condition. We used various cardiac medicines, chronic diseases, food and sports modification, and hope for a better healthy life. They were combined in the two formula in addition to laboratory, radiological and cardiac diagnostic methods and the balance of the disease before and after And how to real prevention and reduce deaths is clear as follows:Therefore, the results were clear, with a decrease in the overall assessment of cardiac diseases for youth, women, and men, of different ages in the":(350 patient) youth - 37% reduction I.H.D ,Myocardial infraction, stable blood pressure, ( RR) 0.70 ; 95% CI 0.52 to 0.90 ; p = 00.1), 17% lower risk of stroke, 33 % lower total risk of CVD, CHD, 22% HbA1C Diabetic mellitus stable , 42% lower lipid profile, 44% decrease in the incidence of fatal or nonfatal myocardial infarction , 6% reduction BMI , 72% CAC . As for the women ( 250 patient), They were less likely to have heart disease 32% reduction IHD, MI, Angina ,Bp, lipid profile, 22% reduction stroke (heart ,brain ), CAC, CHD, D M, As for the men (360 patient ) Those who have heart disease and chronic diseases and their age is over 50 years 36% decrease I.H.D, MI, NSTEMI, STEMI, The incidence of fatal Stroke .46% CAC, 32% decrease Neuropathy, Nephropathy, retinopathy ,HBA1c ,BP, CHD, 52% decrease mortality and morbidity , 3% PCI coronary revascularizations by (95% CI 16% to 59%) , 0.001% Permanent pacemaker , 21% decrease Hear failure .

**Table N: 7**




**Statistical statement of the decline in heart disease before and preparing the injury for the use of early warning within the program (ASA)**

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