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A Review

Patients urgent ventricular arrhythmia (VT) is a disorder of the electrical conduction systems to prevent cardiogenic shock and sudden cardiac arrest. (Article Review)

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ABSTRACT

A system was established through the daily work of patients in outpatient clinics, consultants, emergency and resuscitation, in connection with the causes and results that lead to different arrhythmia, and we focused on the life-threatening type (VT, VF) with the number of patients 140 cases + classical arrhythmia patients controlled by treatment 556 patients in Iraq –The city of Samawah, over the course of the year 2021-2022, we started with knowledge from the ground up by relying on the sick history, on Guideline books, American and British scientific references, and research related to reducing deaths and limiting the aggravation of cases to (VT, VF) An early therapeutic diagnostic program was implemented by controlling common heart diseases (IHD, Cardiomyopathy, myocarditis, Rheumatic heart disease, heart failure), chronic diseases, accompanying diseases, surgical interventions (cardiac catheterization Diagnostic and therapeutic) and a periodic schedule for follow-up of patients.

• Non - sustained (VT) (NSVT) Lasts ≥ 3 - 4 beats and ≤ 30 seconds.

• sustained (VT) > more 30 Second . Patients may complain of palpitation or the symptoms of low cardiac output, such as dizziness, dyspnea or syncope.

• morphology (Monomorphic, polymorphic, pleomorphic),mechanism, clinical stability, localize PVCs (premature ventricular contractions), Hemodynamically stable Vs .

We used methods in diagnosis and treatment, each according to his condition and the extent of its stability discrimination (scar-related VT and idiopathic VTs) and the most serious emergency cases. The majority of cases after 60 years of both sexes (male and female) are the ones that take intensive care. We surrounded the patients with the early diagnostic and therapeutic program for all cases that were , Taking it into account that threatens life, in addition to the various arrhythmia cases that are controlled for reasons known to us. A group of life-saving drugs has been used, and a group of medicines has been used for arrhythmia cases, chronic diseases, comorbid diseases, psychological and physical rehabilitation, lifestyle change, food, risk factor exclusion, and exercise. To improve blood circulation, the results were excellent for the medical work and for the supervising staff. According to the results, there was a decrease in the cases that cause arrhythmia and dangerous cases, and the control of chronic diseases at different ages, especially after 60 years, with an adjustment to the normal state of the patient's condition, and a decrease in heart and coronary diseases by

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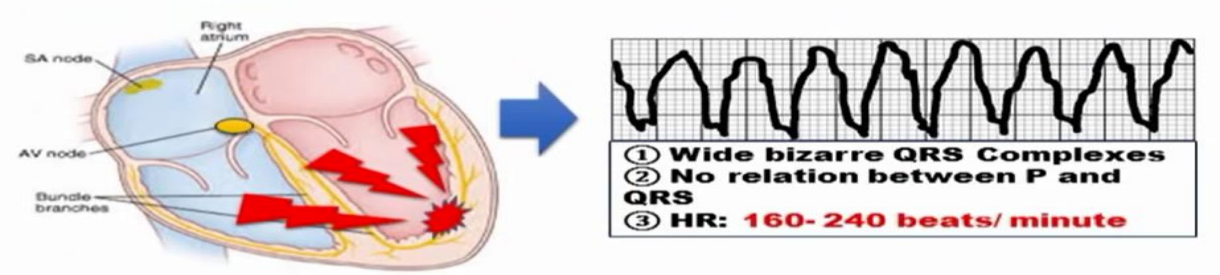
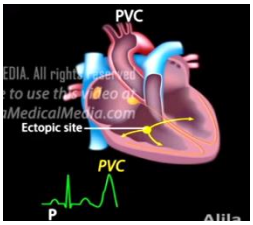
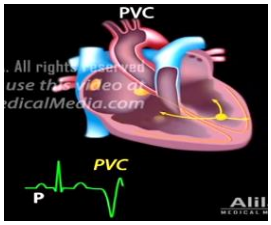
±75%, chronic diseases by ±60%, and associated diseases ±72 %, Arrhythmia (VT, VF) ±76% ,mortality and Morbidity rate decreased by ± 80%.



Introduction

From daily scientific clinical work, we monitor a dangerous condition that threatens human life. Ventricular tachycardia is a heart rhythm disorder (arrhythmia)[1,2] caused by abnormal electrical signals in the heart's lower chambers (ventricles) , This condition may also be called a (VT)or V-tach or a dangerous (VF). , [3,4]a healthy heart normally beats between 60 and 100 times per minute at rest. In ventricular tachycardia, the heartbeat is faster than normal, usually by about 100 or more beats per minute. Irregular heartbeats prevent proper filling of the chambers of the heart with blood. As a result, the heart may not pump enough blood to the rest of the body and the lungs. Also,[5,6] ventricular tachycardia may last only a few seconds or it may last longer. The patient may feel dizziness, dyspnea, short of breath, or chest pain. Also, sometimes ventricular tachycardia can cause the heart to stop (sudden cardiac arrest), which is a life-threatening medical emergency. [9,10]And in patients with more severe symptoms, such as syncope, outpatient monitoring may be inadequate. In patients with structural heart disease and syncope with suspected ventricular tachycardia (VT), Hospital admission and diagnostic electrophysiology testing are warranted, with strong consideration for implantation of a cardioverter-defibrillator (ICD) device. A 12-lead ECG recorded in sinus rhythm should be carefully evaluated in patients without structural heart disease for evidence of ST-segment elevation in leads V1 and V2 [11,12]compatible with Bragada syndrome: (an inherited disorder in which the electrical activity of the heart is abnormal, increasing the risk of arrhythmias and sudden cardiac death), QT interval changes consistent with long or short QT syndromes, or short PR interval and delta wave consistent with Wolff-Parkinson-White syndrome [19,20] (WPW). These ECG patterns identify an arrhythmogenic substrate that may cause life-threatening intermittent symptoms and require further evaluation and treatment..[15.16].





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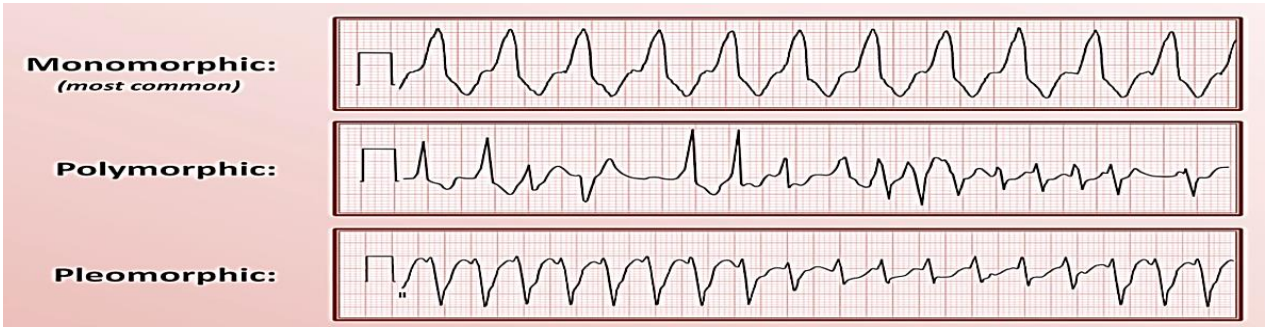
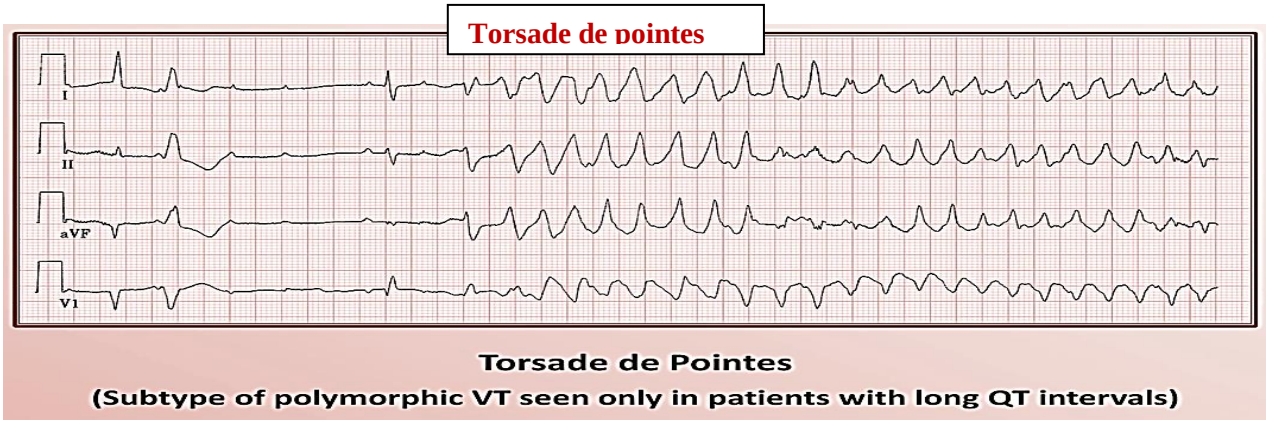
Classification of (VT) : [7.8]

Duration : 1) Non – sustained (VT) (NSVT) Lasts ≥ 3 – 4 beats and ≤ 30 Second

. 2) sustained (VT) > more 30 Second .

Morphology :





Mechanism :

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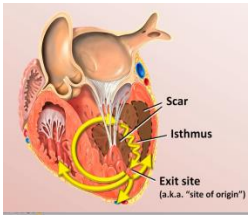
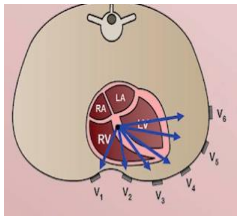
Scar-related (VT)		Idiopathic (VT)
1.	Associated with structural heart disease . - Primarily re-entry . - Older patients . - Relatively poor prognosis .	1. Not associated with structural heart disease . - Primarily focal . - Younger patients . - Relatively good prognosis .

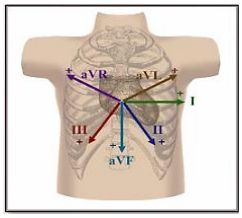
Clinical Stability :

- Hemodynamically stable VS , - Hemodynamically Unstable .

Localize PVCS and VT :





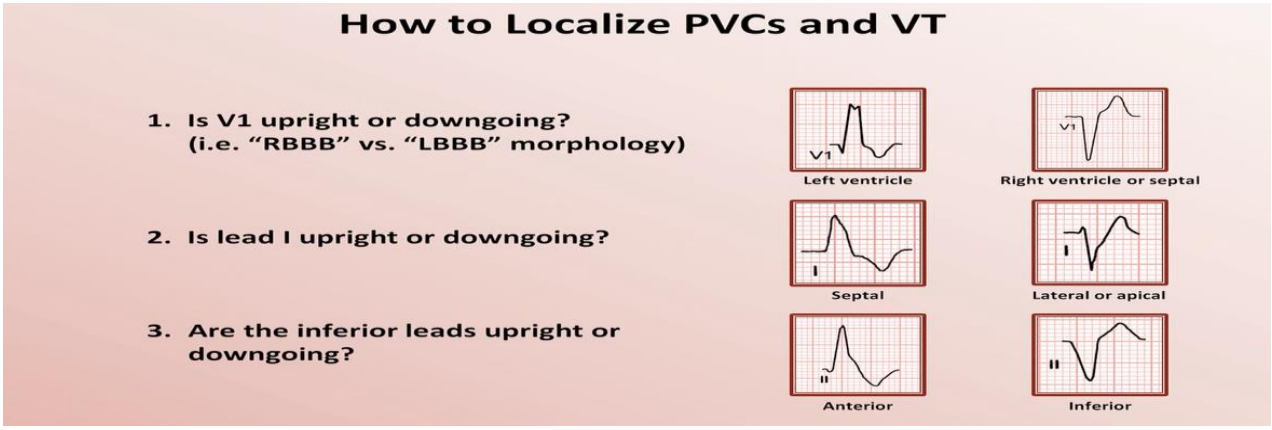


3 Things to keep in mind : 1) Remember the vectors

2) Theirs imperfect correlation between localization and ECG appearance .

3) There is not one universally accepted approach s tradeoff between com plexity and accuracy .

“:



Cardiogenic Shock (CS):[17,18] It is an emergency situation that threatens the life of the patient because of a severe defect in the left ventricle (VT) which leads to weakness of the heart muscle, systolic and diastolic, which leads to a decrease in cardiac output and lung congestion often, a lack of blood flow occurs state of end-organ hypo- perfusion du to cardiac failure ultimately results in death .

Keyword

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E.C.G , Physiology diagnose , Halter , Echo , patients , Emergency Room , drug treatment , DC Shock , Transcutaneous pacing , AICD (Implantable cardioverter Defibrillator) . PCI (Cardiac catheterization), VT ,VF . pacemaker , ablation .

objective / purpose

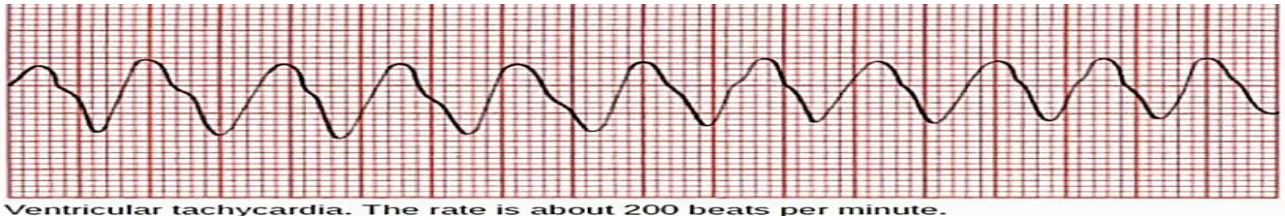
The main objective is to reduce the exacerbation of dangerous cardiac cases of arrhythmia before it occurs, and to treat the real causes and symptoms that lead to and threaten the lives of patients, and IHD, Cardiomyopathy , Myocarditis , Rheumatic heart disease ,congenital heart disease, chronic diseases , We put these causes, diseases, hemodynamic disorders, congenital anomalies, heart diseases, primary follow-up of patients, and reducing deaths (Mortality- Morbidity) .

Methodologic Review

From the daily clinical work of patients, a group of patients in Iraq - Samawah city / teaching hospital who are exposed to this type of arrhythmia in outpatient clinics, consultants, and recipients in emergency rooms, and to (ICU) resuscitation, we have collected a group of patients 140 patients who were exposed to (VT) cases , life-threatening (VF) at different ages, but the majority of patients are after 60 years of age ... As for the patients who suffered from various Arrhythmia diseases that were controlled by treatment, early periodic examination and control of chronic diseases, their number was 556 patients who were under follow-up and safely. We collected the patients over the course of the year 2021-2022. Our main goal is to reduce deaths, prepare the medical staff for emergencies, and develop a work technique, high technology, and programmed skill for early knowledge of the causative heart diseases (heart attack, congenital anomalies, cardiomyopathy, heart failure, rheumatic fever) leading to(VT, VF) and providing the patient with a periodic table To follow up on diagnosis, treatment, prevention, and a diet, in addition to providing medical cases with cardiac catheterization interventions, cardiac operations, and AICD implantation in the heart, according to the patient's condition. The cases were classified as follows:

1) Non – sustained (VT) (NSVT) Lasts $\geq 3 - 4$ beats and ≤ 30 Second .

2)sustained (VT) > more 30 Second . The cases that can be treated are simple and can be treated with medication.. However, the more serious and life-threatening cases that continue immediately need resuscitation, which can be dealt with quickly (>Second 30). sustained VT: Lasts



Ventricular tachycardia. The rate is about 200 beats per minute.

As for life-threatening cases of(VF) that require immediate treatment, in which the shape is not clear, the patient dies, the Systole and the patient dies, quick and life-saving procedures must be

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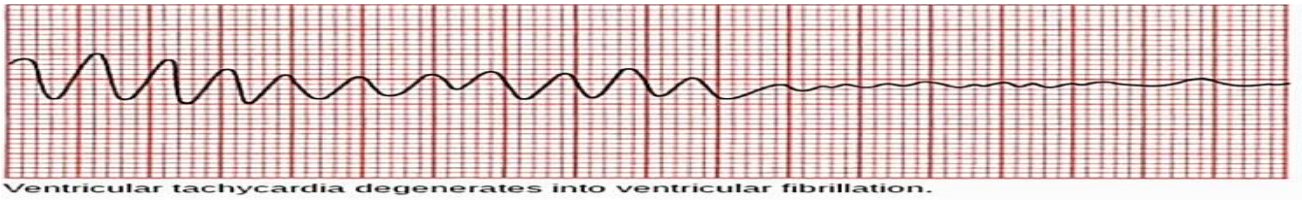
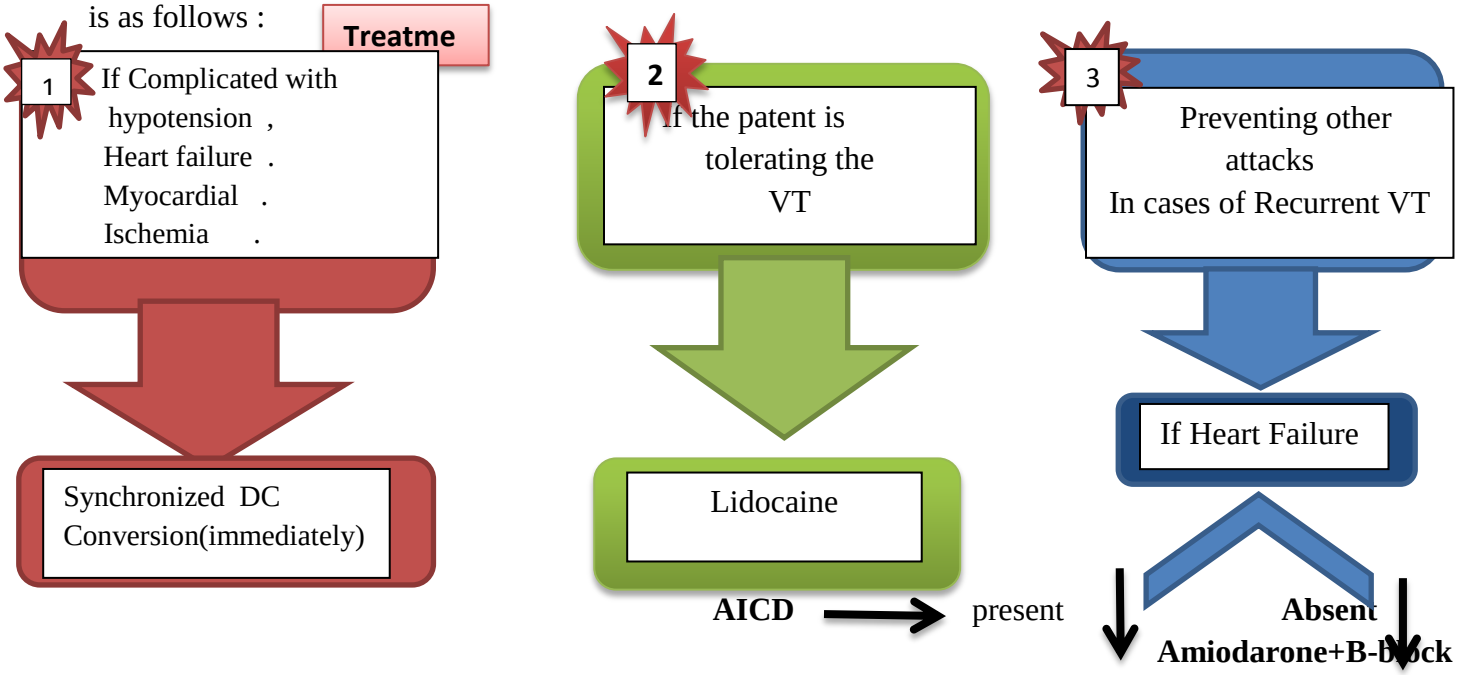
taken ... as shown in the figure (ECG) .



Ventricular tachycardia degenerates into ventricular fibrillation.

Treatment :

Treatment begins for cases that are considered emergency and quick and can be dealt with withe caution before the occurrence of life-threatening (VF) or death of the patient, and it is as follows :



Intensive care unit

1) Heart monitor + oxygen cannula, amiodarone 150 mg with the Fluid. If it does not work, repeat 150 with the Fluid. If it does not work, lidocaine 50 mg 1%. 50 mg did not work 50mg We repeat 50 mg, 50 mg did not work. The maximum dose of lidocaine is 200 mg, not responding after which DC SHOCK 200 joules is required. Beta Blocker , AICD .

RESULTS

It is the result of the results of work by developing a program that changes the lifestyle, conducts laboratory, radiological and physiological analyzes, and the pathological history in early diagnosis. The patient receives treatment, recommendations, and periodic examination for heart diseases, especially rheumatic diseases of all kinds that threaten human life, chronic diseases and cases of hemodynamic and psychological disorders of the patient's condition, daily disorders, exposure to environmental pollution and smoking. The wars that the patient went through... the nature of the patient's work and profession, the nature of customs and traditions, food, the dimensions of the multiple risk factors that surround the patient, age,

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gender and other concomitant diseases that he suffers from... all were taken into account in the patient's file is recorded in the number, sequence, and medical work statistics, with a decrease in the general rate of cases, as follows:

Table: 1 ((Read results shown to patients))

age and gender	50-20- years decrease	60 - 80 years decrease	Males decrease	Females decrease	stability and getting better
Arrhythmia	± % 9	±%72	± %42	±%35	± %7 6
VT , VF	±%3	± 60%	± 77%	± 52%	± 66%
heart disease	±%12	± 65%	±60%	± 53%	± 75%
chronic diseases	±%22	± 70%	± 65%	± 55%	± 60%
Hospital admission rate	±%60	±65%	± 60%	± 53%	± 70%
Surgical interventions	± %7	±9%	± 6%	±3%	± 80%
Cardiogenic shock	± %90	± 40%	± 68%	± 86%	± 78%
death rate	± % 90%	± 70%	± 72%	± 65%	± 80%

According to the results, there was a decrease in the cases that cause Arrhythmia , dangerous cases, and the control of chronic diseases at different ages, especially after 60 years, with an adjustment to the normal state of the patient's condition, and a decrease in heart disease and coronary disease by ± 75%, decrease chronic diseases ± 60%, and associated diseases ±72% , Arrhythmia decrease ±76% ,The death rate decreased by 80% .

DISCUSSION

The work was real from the cases that were treated and followed up in connection with Guidline and the recommendations of the American Heart Association (Follow of Royal society) and the British Royal Society. It has to be one of the most important heart disease ( ) that have been dealt with, and the control of chronic diseases and the causes of exacerbation of the disease was a joint work between cardiologists, internists, cardiac surgeons, and various examinations .. All of these things definitely reinforced the reduction in this type of life-threatening Arrhythmia (IHD, Cardiomyopathy, myocarditis, Rheumatic heart disease, heart failure), There are a lot of non-dangerous arrhythmia, where the risk factors have been raised and the lifestyle changed, which promoted recovery.. The dangerous cases did not reach the exacerbation and development of the disease except with the negligence of some of the patients by not reviewing.. The key to the complaint is that they are side effects of heart diseases that have a sick history.. Reducing deaths and not deteriorating the patient's condition is our main goal, so among the results that appeared and receiving cases, medical capabilities and experience have a role for the medical staff, medicines and medical equipment in strengthening

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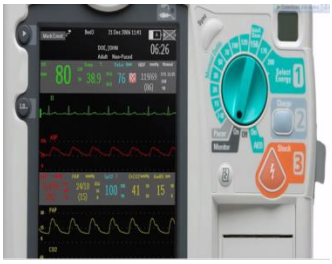
work .. and reducing the economic aspect of the state by not reaching the patient's condition (VF), which is fatal to humans, and seriously dealing with it And that a diseased condition in the heart and an imbalance in the heart rhythm and a change in the location of the nerve impulse from the ventricle, which causes tachycardia and enters into heart failure, we are DC Shock quickly to save the patient's life, of course, according to the condition and its stability, and limiting diseases from periodic follow-up to him and early examinations are of great importance and saving the patient's life .

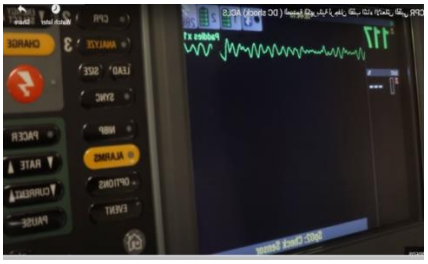
CONCLUSION

Summary of work from scientific and practical practice on a group of patients in a teaching hospital over the course of a year on patients 140 patients randomized in outpatient clinics, consultants, emergency and resuscitation who were exposed to (VT) and patients complaining of different heart and arterial disorders controlled by treatment, simple and stable 556 patients In a random manner, work was done by providing an early therapeutic diagnostic program to avoid a dangerous type of Arrhythmia (VT, VF), which causes death and sudden cardiac arrest, and we examined the underlying causes of heart disease (IHD, Cardiomyopathy, myocarditis, Rheumatic heart disease, heart failure) And chronic diseases and accompanying diseases, where we succeeded in reducing to the lowest level of exposure to the type of lethal and classic Arrhythmia. Smoking, knowledge of the patient's profession, poverty and wealth, his living condition. The results were clear and successful in reducing the percentage of deaths, dysentery, heart diseases, chronic diseases and accompanying diseases by a large percentage, protecting the economy of the state and the effort on the medical staff and preserving the patient's life from the threat of death .. Use the various main therapeutic drugs according to the case as in the equation :

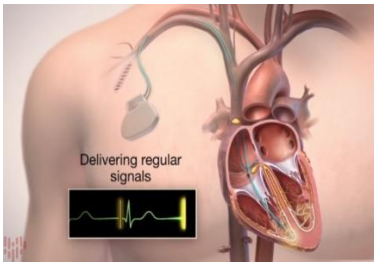
[DC Shock , Amiodarone 150 mg , lidocaine , B-Block , calcium channel , Anticoagulant , Fluid , cannula, AICD] . Gradually, the therapeutic drugs are controlled in addition to the medications for chronic diseases, accompanying and monitoring devices. According to the stability of the condition and exposure to heart attacks and sudden ones, all work and effort have been rationalized by stabilizing the patient's condition and controlling these diseases and fatal cases.



(DC Shock)



The patient monitor



(AICD)

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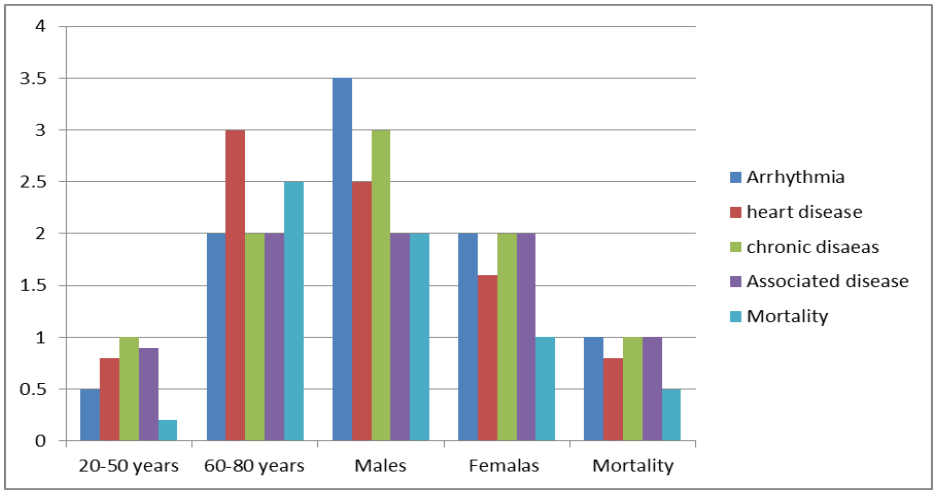

Statistical statement of regression of heart disease before preparing patients for use of early follow-up within the ASA program

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