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A STUDY ON PREVALENCE, RISK FACTORS, MEDICATION ADHERENCE AND DRUG UTILIZATION STUDIES OF CARDIOVASCULAR DRUGS IN MYOCARDIAL INFRACTION IN CARDIOLOGY DEPARTMENT IN A TERTIARY CARE HOSPITAL

[1]Dr. J. Gopala Krishna, [2]S.Asma Parveen[3] I. Sai Kiran, [4]R.Vijayvikas

[1]M.S. Pharm, PhD, [2, 3,4]Pharm D

[1]Department of Pharmaceutical Chemistry,

[1]Dr.K.V. SUBBA REDDY INSTITUTE OF PHARMACY DUPADU, KURNOOL – 518218 India.

Abstract: **Aim:** This study is aim to assess the Prevalence, Risk factors, Medication Adherence, Drug Utilization Studies in MYOCARDIAL INFRACTION. **Objectives:** The key objectives of the study include: ¬ To evaluate the Risk Factors in Coronary Artery Disease Patients. ¬ To access the Medication Adherence in Coronary Artery Disease Patients. ¬ To determine the Drug Utilization patterns of Cardio Vascular Drugs. **Methodology:** Our study is prospective, observational conducted in cardiology department of govt. general hospital attached to Kurnool medical college. The sample was collects based on inclusion and exclusion criteria in the patient data collection proforma. **Conclusion:** The prevalence of myocardial infraction is very high and, on the rise. Prevalence of Myocardial infraction is higher in men, whereas the mean age of women at the time of incidence is higher. The majority of risk of myocardial infraction can be explained by Alcohol use, Smoking, Hypertension and Diabetes mellitus. Medication adherence in our study was seen to be reducing over 3 months due to factors such as low monthly income and low educational status of the subjects. Our study showed that initiation of treatment in both the genders and various age groups. The difference in the use of drugs on hospital admission might be due to the varied clinical presentation. Our study leads us to the conclusion that the proportion of prescription medications with generic names needs to increase

Index Terms **-** Mi - Myocardial Infractiom Sa – Sino Atrial Av – Atrio Ventricular Cad – Caronary Artery Disease Hf – Heart Failure Vdh – Valcular Heart Disease.

I.INTRODUCTION

CARDIOVASCULAR SYSTEM: Cardiovascular system consists of heart and arteries and veins that are connected to the heart. Heart functions as an important part of the body of a human through which the blood and nutrients and metabolites are transported to the appropriate places. Heart pumps the blood and other constituents to the tubular channels and blood vessels circulation is controlled and maintained by the central pumping organ called heart. Components of cardiovascular system Cardiovascular system is closed with tubes and is made up of parts based on their structural and topographical characteristics 1.Heart 2. Arteries 3. Veins 4. Capillaries.

CARDIO VASCULAR DISEASES:

Cardiovascular diseases, also known as heart and blood vessel diseases are a group of conditions that affect the heart and blood vessels, including the coronary arteries, veins, and capillaries. These conditions can range from high blood pressure, coronary artery disease, heart failure, to heart valve disease, and arrhythmias.

According to the World Health Organization, cardiovascular diseases are the leading cause of death globally, with an estimated 17.9 million deaths per year. Risk factors for cardiovascular diseases include smoking, high blood pressure, high cholesterol levels, diabetes, obesity, and physical inactivity.

Prevention and management of cardiovascular diseases involve lifestyle modifications such as a healthy diet, regular physical activity, quitting smoking, and managing other risk factors. Treatment options include medications, surgery, and procedures such as angioplasty and bypass surgery.

Research in the field of cardiovascular diseases is ongoing, with new discoveries and advancements in treatment options being made regularly. Some of the current areas of research include the use of stem cells for heart repair, gene therapy, and the development of new drugs and treatments.

Types of Cardiovascular Diseases:

There are several types of cardiovascular diseases, including:

- Coronary Artery Disease (CAD): This occurs when plaque builds up in the arteries that supply blood to the heart, leading to reduced blood flow to the heart muscle. This can result in chest pain (angina), heart attack, and heart failure.
- Heart Failure: This occurs when the heart is not able to pump enough blood to meet the body's needs. This can result from CAD, high blood pressure, or other conditions that damage the heart muscle.
- Arrhythmias: These are abnormal heart rhythms, which can range from benign to life-threatening. They can be caused by CAD, heart failure, or other factors.
- Valvular Heart Disease: This occurs when the valves that control blood flow in and out of the heart are damaged or diseased, leading to reduced blood flow or backflow of blood.
- Aortic Aneurysm: This is a bulge in the wall of the aorta, which is the largest artery in the body. If the aneurysm ruptures, it can be life-threatening.

Risk Factors:

Several risk factors increase the likelihood of developing cardiovascular diseases, including:

High blood pressure: This puts extra strain on the heart and blood vessels.

High cholesterol levels: This can lead to the build-up of plaque in the arteries.

Smoking: These damage the blood vessels and increase the risk of blood clots.

Diabetes: This increases the risk of heart disease and stroke.

Obesity: This puts extra strain on the heart and increases the risk of high blood pressure and diabetes.

Treatment:

Treatment for cardiovascular diseases depends on the specific condition and its severity. Some treatments may include:

- Lifestyle changes: These can include a healthy diet, regular exercise, quitting smoking, and managing other risk factors.
- Medications: These may include blood pressure medications, cholesterol-lowering drugs, and blood thinners.
- Procedures: These may include angioplasty, bypass surgery, or valve replacement surgery.

Research:-

Research in the field of cardiovascular diseases is ongoing, with new discoveries and advancements in treatment options being made regularly. Some current areas of research include:

- cell therapy: This involves using stem cells to repair damaged heart tissue.
- Gene therapy: This involves modifying genes to treat or prevent cardiovascular diseases.
- Artificial heart technology: This involves the development of devices that can replace or assist the function of the heart.
- Precision medicine: This involves tailoring treatment to an individual's genetic makeup to improve outcomes.

Prevention:

Preventing cardiovascular diseases involves reducing the risk factors that contribute to the development of the condition. Some measures that can be taken to reduce the risk include:
Eating a healthy diet: A diet that is low in saturated and trans fats, cholesterol, salt, and added sugars can reduce the risk of developing cardiovascular diseases.
Regular exercise: Physical activity can help to maintain a healthy weight, lower blood pressure and cholesterol levels, and reduce the risk of developing cardiovascular diseases.
Quitting smoking: Smoking damages the blood vessels and increases the risk of developing cardiovascular diseases. Quitting smoking can help to reduce the risk.

Managing other health conditions:

Conditions such as diabetes, high blood pressure, and high cholesterol levels can increase the risk of developing cardiovascular diseases. Managing these conditions can help to reduce the risk. Getting regular check-ups: Regular check-ups can help to identify risk factors and conditions that can contribute to the development of cardiovascular diseases.

Conclusion:

Cardiovascular diseases are a major global health problem that affects millions of people worldwide. The condition can be prevented through lifestyle modifications and management of risk factors. Treatment options are available for individuals with cardiovascular diseases, and ongoing research is focused on improving treatment outcomes and developing new therapies. Understanding the epidemiology, social and economic impact, and prevention strategies of cardiovascular diseases is crucial in addressing the burden of the condition and improving public health.

MYOCARDIAL INFARCTION

Introduction:

Myocardial infraction colloquially called as heart attack is initiated by the decreased or complete stopping of blood flow to the myocardium. Myocardial infraction might be silent and goes undetected leading to hemodynamic deterioration and sudden death in India prolonged deprivation of oxygen to the myocardium lead to myocardial cell death or necrosis.

Patients often complain about discomfort or pressure that radiates to neck jaw, shoulder, arm, in addition to history and physical exam myocardial infraction might show out in ECG changes and elevated biochemical markers such as troponins.

The myocardial infraction is mostly occurred by blood clot in epicardial artery supplies that territory of heart muscle, not all cases are diagnosed with blood clot etiologically. In living heart tissue blood supply must equal the oxygen demands of heart muscle, this is termed supply demand ratio. Imbalance in this ratio with too much demand then heart rate might be very rapid or drop in blood pressure may lead to myocardial damage without the presence of a blood clot this can arise a definition that there must be a rise or fall in blood test sensitive to heart muscle damage (troponin I or t) this clinical evidence for diagnosis of myocardial infarction includes ischemia which include either ECG evidence for diagnosis of myocardial

infraction such as ST segment changes or new left bundle branch block development of pathological Q waves on ECG or new wall motion abnormalities on cardiac testing or combination of these.

DRUG THERAPY:

Classes of Drugs Used to Treat Myocardial Infarction:

- Classes of drugs used in the treatment of myocardial infarction are given below. Clicking on the drug class will link you to the page describing the pharmacology of that drug class.
- Vasodilators (dilate arteries and veins) contains Nitro dilators,Angiotensin converting enzyme inhibitors (ACEIs),Angiotensin receptor blockers (ARBs),Aldosterone (mineralocorticoid receptor) antagonists
- Cardiac depressant drugs (reduce heart rate and contractility) includes beta-blockers and Antiarrhythmics (if necessary)
- Anti-thrombotic (prevent thrombus formation) has Anticoagulant and Anti-platelet drugs
- Thrombolytics (dissolve clots - i.e., "clot busters") have Plasminogen activators
- Analgesics (reduce pain) like Morphine.

REPERFUSION THERAPY IN ACUTE MYOCARDIAL INFARCTION:

 Immediate percutaneous coronary intervention or fibrinolytics for individuals with STEMI

 Patients with NSTEMI should receive immediate percutaneous coronary intervention if they are unwell, or within 24 to 48 hours if they are stable.

 For STEMI patients when accessible quickly by a skilled operator, emergency PCI is the preferred ST-segment elevation myocardial infarction treatment for STEMI patients. STEMI patients who fulfil the criteria should undergo thrombolysis if there is a chance that PCI will be significantly delayed. When administered within the first few minutes to hours following the onset of myocardial infarction, reperfusion using fibrinolytics is most successful. It is best to start a fibrinolytic as soon as possible

 Patients with unstable NSTEMI (patients with persistent symptoms, persistent hypotension, or persistent arrhythmias) should go right to the cardiac catheterization lab to find any coronary lesions that need PCI or coronary artery bypass surgery (CABG).

 Because a fully blocked infarct-related artery at presentation is rare in patients with uncomplicated NSTEMI, immediate reperfusion is not as urgent. In order to detect coronary lesions necessitating PCI or CABG, such patients usually undergo angiography within the first 24 to 48 hours of hospitalisation.

MEDICATION ADHERANCE:

It plays a keyrole in management of coronary artery disease.

Non- adherance to cardiovascular medications remains a major problem for cardiovascular patients.it leads to poor clinical outcomes including rehospitilization, subsequent myocardial infraction and increased mortality in various patients.

II.NEED FOR STUDY

- The annual number of deaths from CVD in India is projected to rise from 2.26 million (1990) to 4.77 million (2020). Coronary heart disease Prevalence rates in India have been estimated over the past several decades and have ranged from, 1.6% to 7.4% in rural populations and from 1% to 13.2% in urban populations.
- So, this study is taken up to assess the prevalence and the risk factors in myocardial infraction.
- To assess the medication adherence in the myocardial infraction patients.
- To determine the Drug Utilization Patterns of cardiovascular drugs.

III.AIMS AND OBJECTIVES

AIM:

This study mainly aims to assess the prevalence, Risk Factors, Medication adherence and Drug utilization of cardiovascular drugs in myocardial infarction.

OBJECTIVES:

The key objectives of the study include:

- To evaluate the Risk Factors in Coronary Artery Disease patients.
- To assess the Medication Adherence in Coronary Artery Disease patients.

➢ To determine the Drug Utilization Studies of cardiovascular drugs.

IV.PLAN OF WORK:

- ➢ Got an approval from medical superintendent and institutional human ethics committee.
- ➢ The study will be conducted in government general hospital.
- ➢ Obtained informed consent form from the patient.
- ➢ The study planned shall be carried out for 6 months.
- ➢ Enrolment of patients into the study is based on the inclusion criteria.
- ➢ Receiving and study of informed consent form from the patients.
- ➢ The incidence and prevalence of patient condition is assessed through clinical profile.
- ➢ Patients' demographic details were collected, every prescription is studied.
- ➢ The prepared data is analyzed, processed, formed and reported.

V.METHODOLOGY:

STUDY DESIGN:

- ➢ Prospective observational study.

STUDY SITE:

- ➢ Cardiology Department of Government General Hospital attached to Kurnool Medical College, Kurnool.

STUDY DURATION:

- ➢ The present study was carried out for a period of 6 Months.

SAMPLE SIZE:

- ➢ During the study the total of 126 Cases were collected.

STUDY MATERIAL:

- ➢ Patient data collection proforma.

INCLUSION CRITERIA:

- All patients diagnosed with Myocardial Infarction are included.
- All the patients of either sex aged above 18 years would be included.
- Conscious, co-operative patients are included.
- All patients with all risk factors are also included in our study.

EXCLUSION CRITERIA:

- Pediatrics.
- Psychiatric patients with Myocardial Infarction.
- Patients who are not willing to participate in the study.
- Pregnant and breastfeeding women are excluded.

METHOD OF DATA COLLECTION:

It is a prospective observational study to be conducted in government general hospital Kurnool district in the department of Cardiology.

LIMITATIONS

- ➢ This study is conducted in the Cardiology Department of government general hospital attached to Kurnool medical college, Kurnool.
- ➢ The limitation of our present study was small sample size
- ➢ The study was conducted in the limited time frame (6months)
- ➢ It was hospital-based study
- ➢ The study is conducted in a single centre which doesn't reflect the original scenario of myocardial infraction in India. so there needed a large multi-scale, multi-centre countrywide study for authentic outcome.
- ➢ The study's sample size might not be representative of Kurnool district.

VI.RESULTS:

GENDER:

Table.6.1: Gender Wise distribution of study population

We have collected the total number of 123 subjects among this, 99 were observed as males and 24 members are females. The count and distribution given below in the form of table 6.1 and Figure 6.1(a).

Gender	Males	Females
Total	99	24

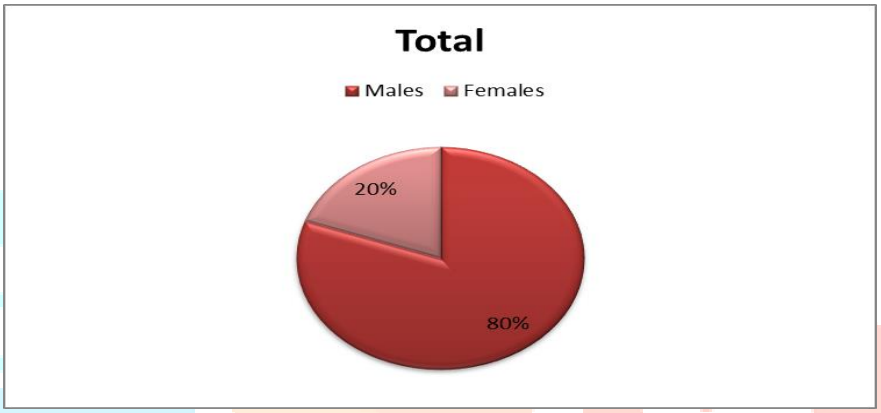


Figure 6.1: (a). Gender Wise distribution

AGE WISE DISTRIBUTION:

In the current study, the age range of 51–61 years was the most affected, with a percentage of 29.2%, and the range of 73–83 years had the lowest percentage (4.8%).

AGE GROUP	MALE	FEMALE	TOTAL	PERCENTAGE
18-28	5	2	7	5.6%
29-39	11	1	12	9.7%
40-50	22	10	32	26.4%
51-61	30	6	36	29.2%
62-72	26	4	30	24.3%
73-83	5	1	6	4.8%

Table.6.2: Age Wise Distribution of Study Population

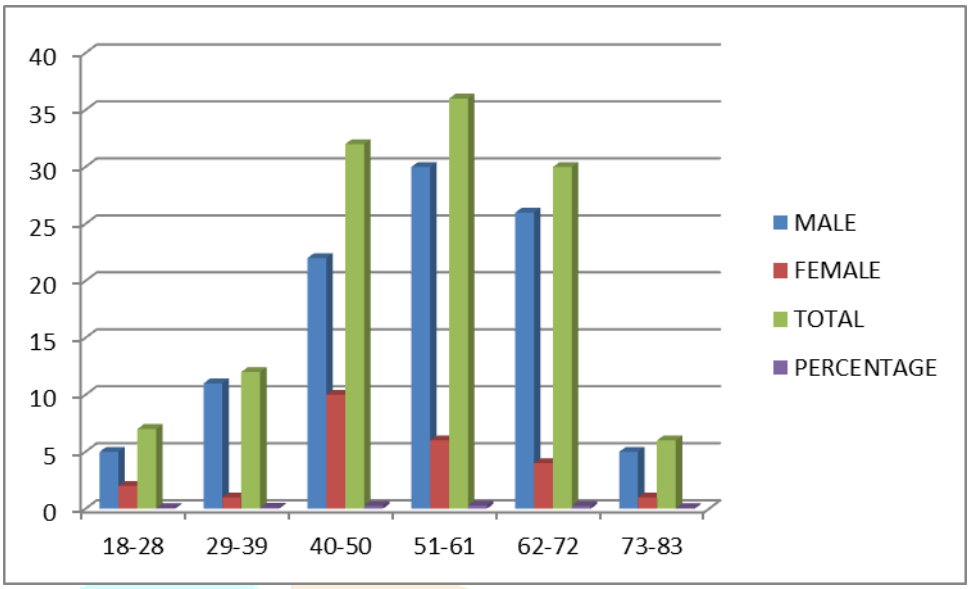


Fig 6.2(b): Age Wise Distribution

Educational Status:

34 patients in our study were illiterate, compared to 89 who are literate.

TABLE 6.3: Distribution of Educational Status in Study Population

GENDER	LITERATE	ILLITRATE	TOTAL
MALE	12	22	34
FEMALE	2	87	89

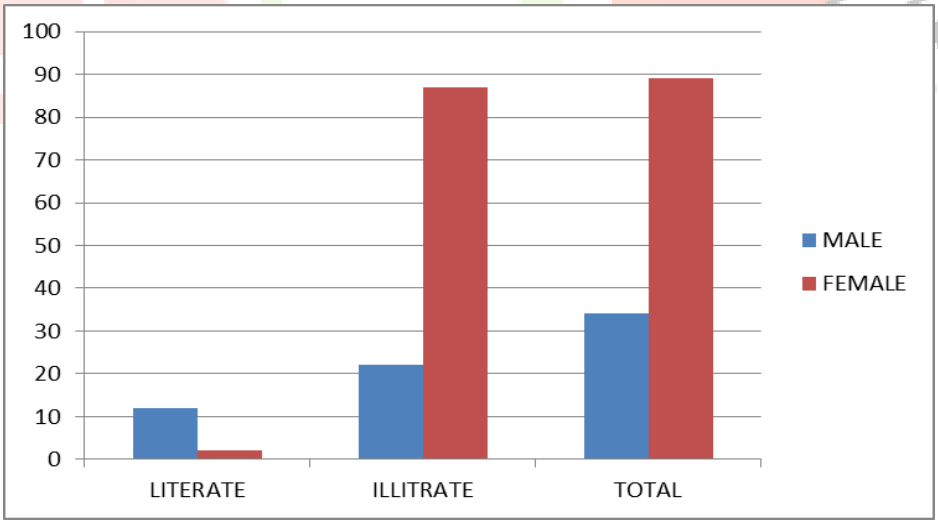


Figure 6.3(c): Educational Status

Marital Status:
In our study, 120 participants are married and 3 are single.
TABLE.6.4: Distribution of Marital Status in Study Population

MARITAL STATUS	MALES	FEMALES
MARRIED	102	18
UNMARRIED	3	0

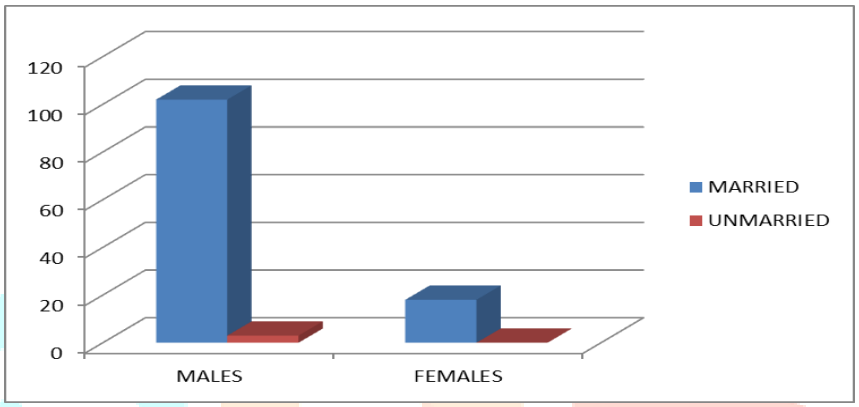


Figure 6.4(d): Marital Status

SOCIAL STATUS:

In our study, 123 patients were involved. Among these, 11 men smoked exclusively, 1 woman smoked exclusively, 10 men consumed alcohol exclusively, and 66 men smoked and drank simultaneously.

TABLE.6.5: Distribution of Social Habits in Study Population

SOCIAL HABITS	MALE	FEMALE
SMOKING	11	1
ALOCOHOL	10	0
SMOKING + ALCOHOL	66	0

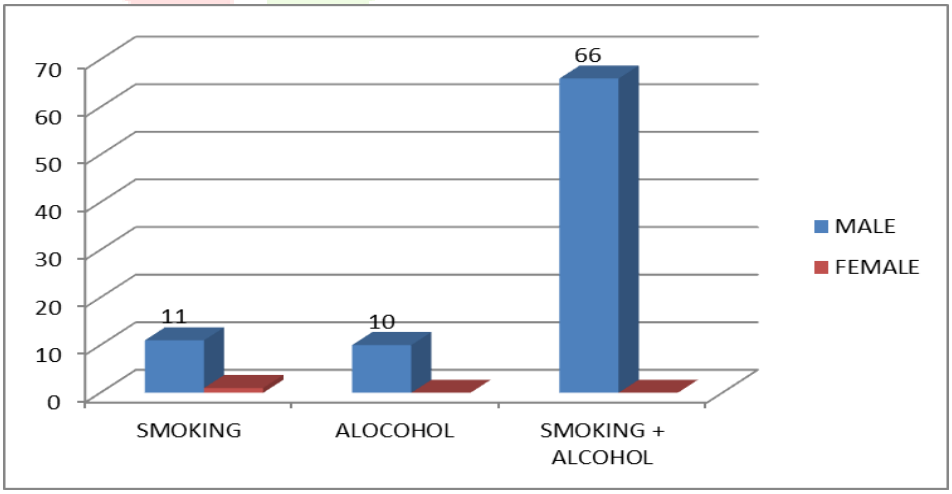


Figure 6.5(e): Social Habits

RISK FACTORS:

In Present study, Alcohol (76), smoking (75), hypertension (69), diabetes mellitus (54), and family history of CAD (80) were the most significant risk variables in our study.

TABLE. 6.6: Distribution of Risk Factors in Study Population

RISK FACTORS	MALE	FEMALE
HTN	52	17
DM	42	12
SMOKING	74	1
ALCOHOL	76	0
FAMILY H/O CAD	8	0
OTHER	18	6

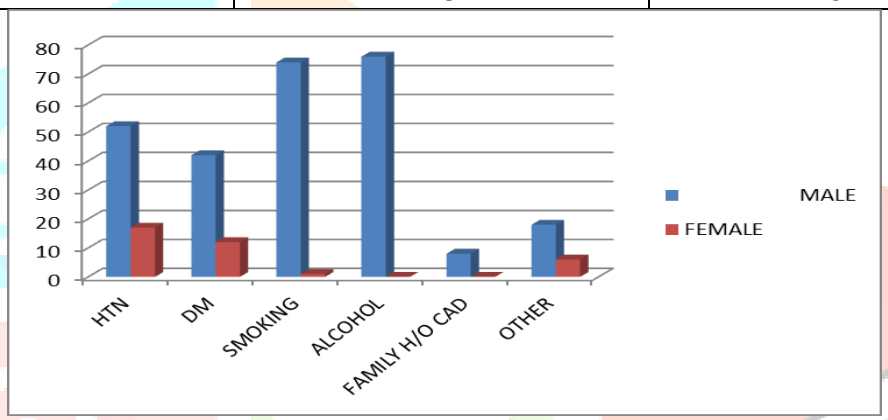


Figure 6.6(f): Risk Factor

TYPES OF MYOCARDIAL INFRACTION:

The most frequent type of myocardial infarction in our study was anterior wall myocardial infarction, while lateral wall myocardial infarction was the least prevalent.

Table 6.7: Distribution of Different Types of Myocardial infarction in Study Population

TYPE OF MI	MALE	FEMALE
AWMI (Anterior wall MI)	53	4
IWMI (Inferior wall MI)	23	3
LWMI (Lateral wall MI)	16	0
PWMI (Posterior wall MI)	1	0
NSTEMI (Non-ST Elevated MI)	7	3
STEMI (ST Elevated MI)	4	6
ANTEROSEPTAL	4	1
LW+AWMI	3	0

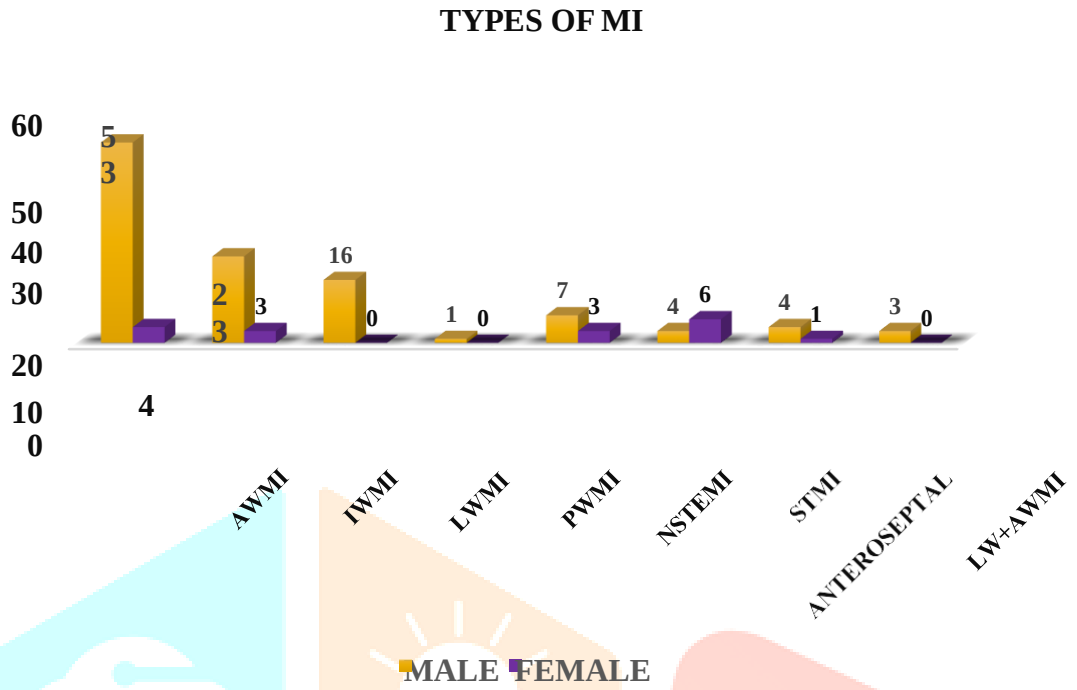


Figure 6.7(g): Types of Myocardial Infarction

BASED ON 2D ECHO:

In our study, subjects mostly effected with moderate LVD with 35.7%, and mild LVD with 28.4%, both normal LVF and severe LVD are with 17.8%.

Table 6.8: Distribution of 2D-Echo in study population

CONDITION	AFFECTED PEOPLE	PERCENTAGE
NORMAL LVF	22	17.8
MILD LVD	35	28.4
MODERATE LVD	44	35.7
SEVERE LVD	22	17.8

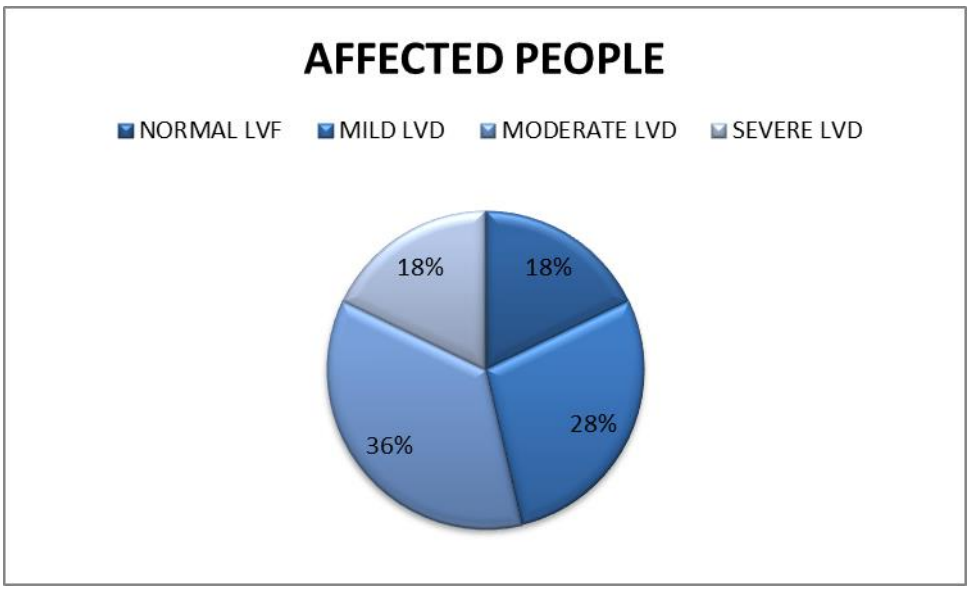


Figure 6.8 (h): Based on 2D Echo

MEDICATION ADHERANCE:

In our study, moderate adherence was more prevalent with 43 respondents, whereas low and high adherence were each found in 40 subjects.

TABLE.6.9: **DISTRIBUTION BASED ON MEDICATION ADHERENCE**

Medication Adherence	Low Adherence	Moderate Adherence	High Adherence
Total	40	43	40

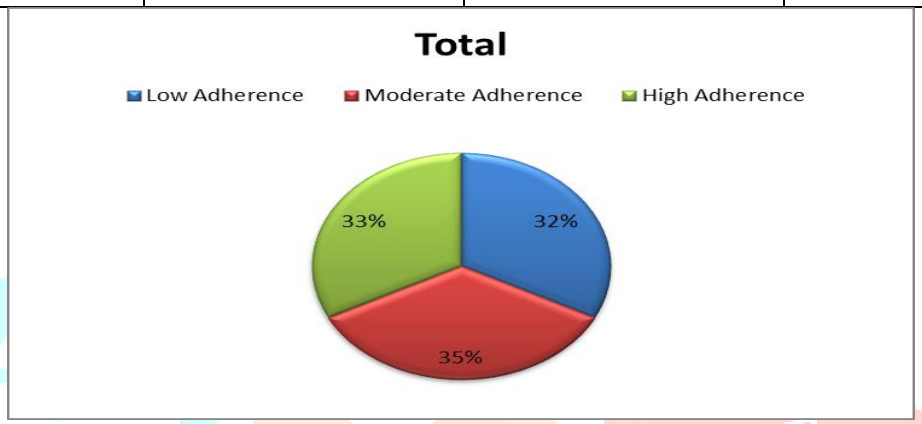


Fig 6.9 (I): Based on Medication Adherence

DRUG UTILIZATION STUDIES:

PRESCRIBED DRUGS:

Atorvas is the most often given cardiovascular medicine in our survey, with 111 prescriptions, followed by clopitab with 103 and Ecospirin with 101.

Table 6.10.1: Distribution of Cardiovascular Drugs Based on Study Population

S.NO	PRESCRIBED DRUGS	NO. OF PRESCRIPTION
1	HEPARIN	89
2	ECOSPIRIN	101
3	CLOPITAB	103
4	ATORVAS	111
5	LOMARIN	11
6	PRAX	10
7	ANGIOSPAM	3
8	CARNISURE	5
9	IVABRAD	16
10	S. CREMAFFIN	5
11	STIGMA GOLD	1
12	ATROPINE	2
13	ELAXIM	1
14	ALDACTONE	68
15	SORBITRATE	22
16	SPIRINOLACTONE	21
17	DIGOXIN	1
18	DYTOR PLUS	1

19	AMIDARONE	1
20	NITROCARTIN	1
21	TELMA	13
22	LABETELOL	1
23	NOR-ADRENALINE	1
24	AMLODIPINE	4
25	MANNITOL	1
26	ACITRAM	1
27	ENAM	83
28	LASIX	89
29	MET-XL	78

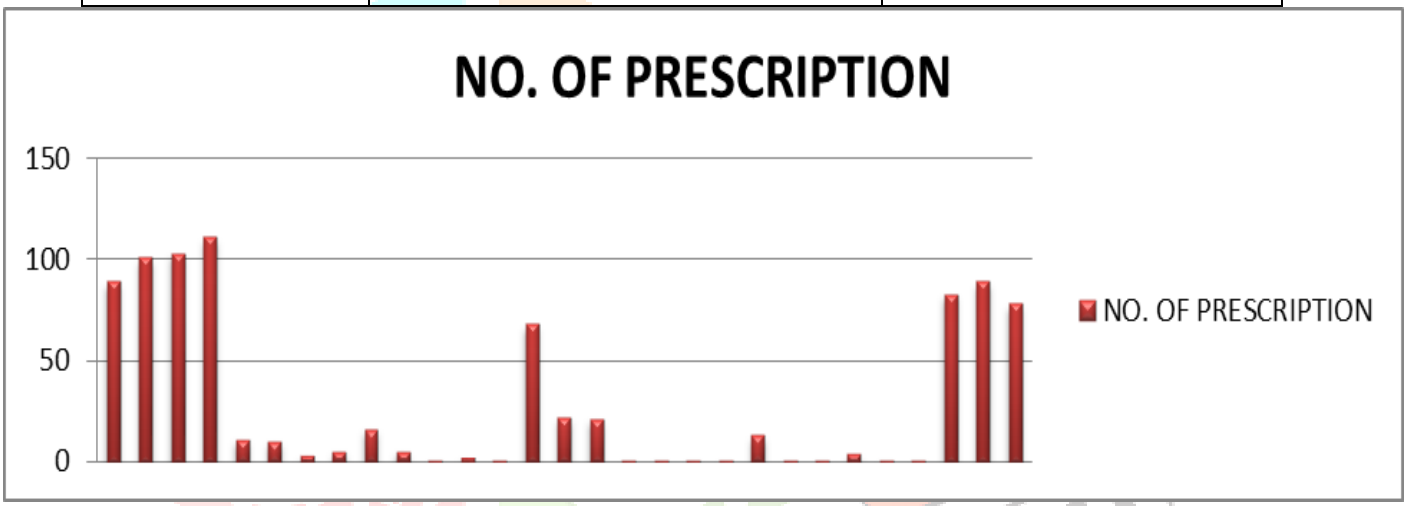


Fig 6.10.1(j): Cardio Vascular Drugs

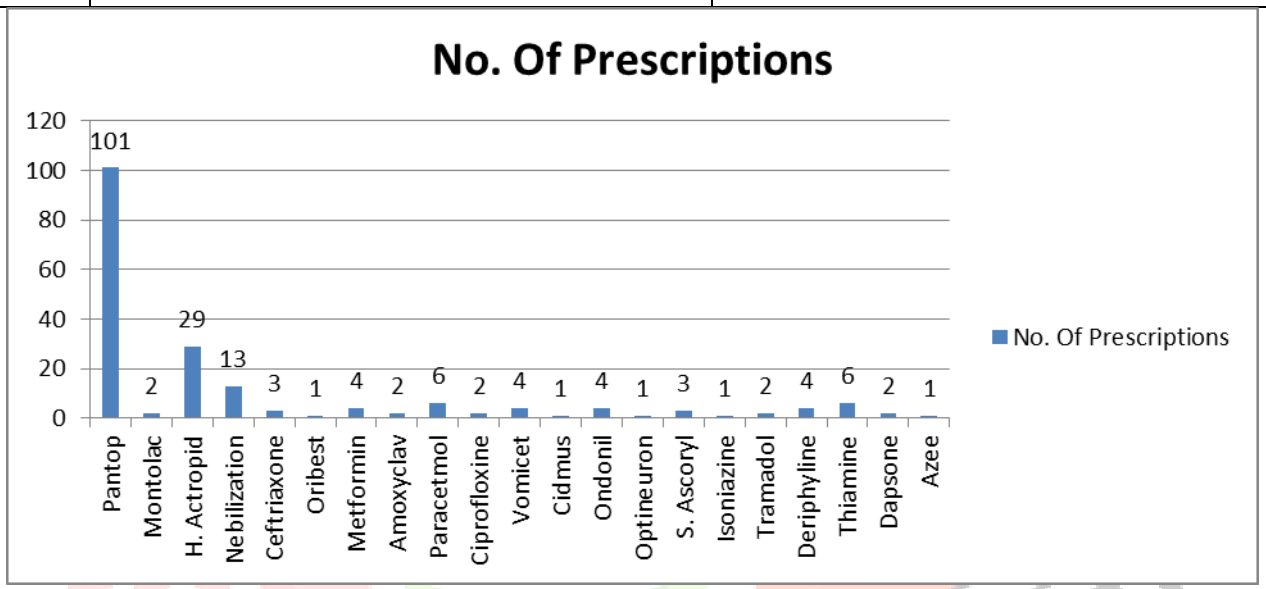
Most commonly utilized miscellaneous drugs:

- Pantop was the most widely used miscellaneous drug

Table.6.10.2: Distribution of Miscellaneous Drugs in Our Study Population:

S. No	Miscellaneous Drugs	No. Of Priscriptions
1	Pantop	101
2	Montolac	2
3	H. Actropid	29
4	Nebilization	13
5	Ceftriaxone	3
6	Oribest	1
7	Metformin	4
8	Amoxyclav	2
9	Paracetmol	6
10	Ciprofloxine	2
11	Vomicet	4
12	Cidmus	1
13	Ondonil	4
14	Optineuron	1

15	S. Ascoryl	3
16	Isoniazine	1
17	Tramadol	2
18	Deriphyline	4
19	Thiamine	6
20	Dapsone	2
21	Azee	1



ANTI HYPERTENSIVE DRUGS:

In our study most commonly utilized Anti-Hypertensive Drug was Lasix with 83 prescriptions and labetalol was the lowest with 1 prescription.

Table 6.11: Distribution of Usage of Anti-Hypertensive Drugs in Our Study Population

S. No	Drugs	No. Of Prescription
1	Lasix	83
2	Met-Xl	78
3	Telmisartan	13
4	Amlodipine	4
5	Spironolactone	2
6	Labetolol	1

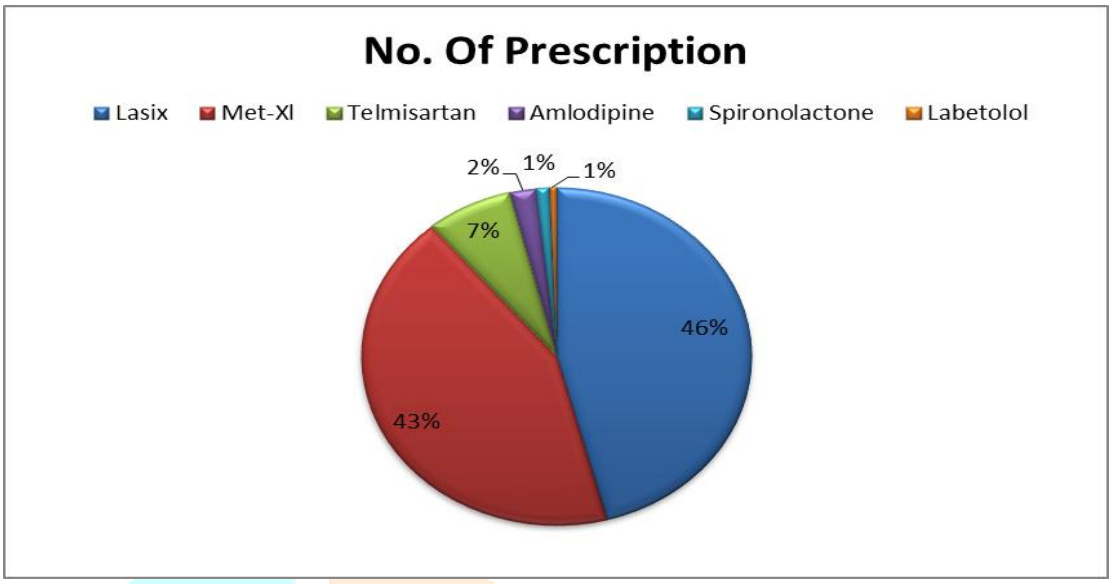


Fig 6.11(l): Anti-Hypertensive Drugs

CARDIOVASCULAR DRUGS:

Most commonly utilized cardiovascular drugs

ANTI PLATELET DRUGS:

The most commonly utilized anti-platelet drug was clopitab with 103 prescriptions followed by Ecospirin with 101 prescriptions.

Table.6.12.1: Distribution of Anti Platelet Drugs in Our Study Population

Drugs	No. Of Prescription
Ecosprin	101
Clopitab	103
Prax	10
Angiospan	2
Stigma Gold	1

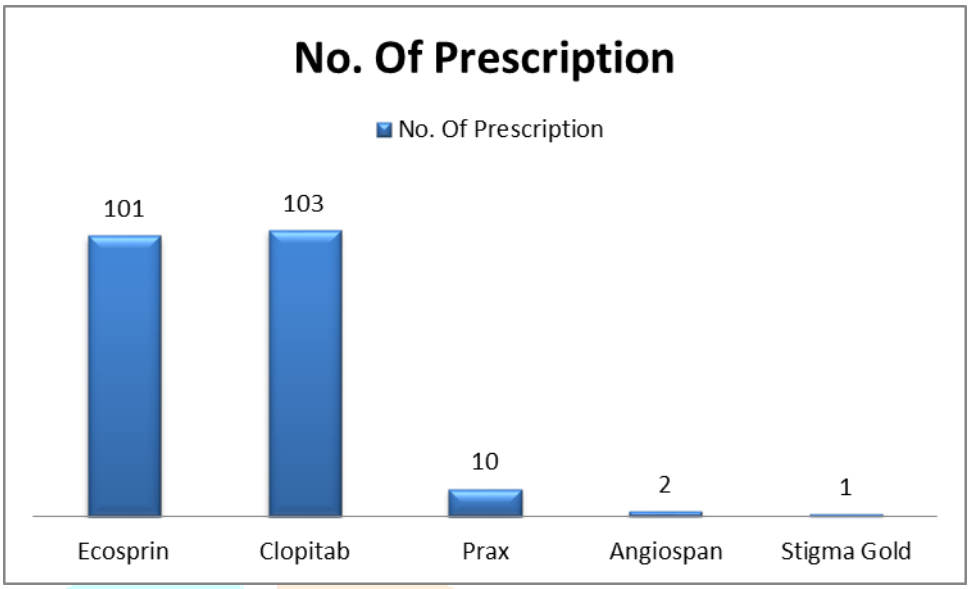


Fig 6.12.1(m): Anti Platelet Drugs

ANTI HYPERLIPIDEMICS:

Atorvastatin was the only prescribed anti-hyperlipidemic with 111 prescriptions.

Table 6.12.3: Distribution Of Anti Hyperlipidemic Drugs In Study Population

DRUGS	NO. OF PRESCRIPTIONS
ATORVASTATIN	111

ANTI COAGULATS:

Table 6.12.2: Distribution Of Anti Coagulants In Our Study Population:

Drugs	No. Of Prescription
Heparin	89
Lomarin	11
Acitram	1

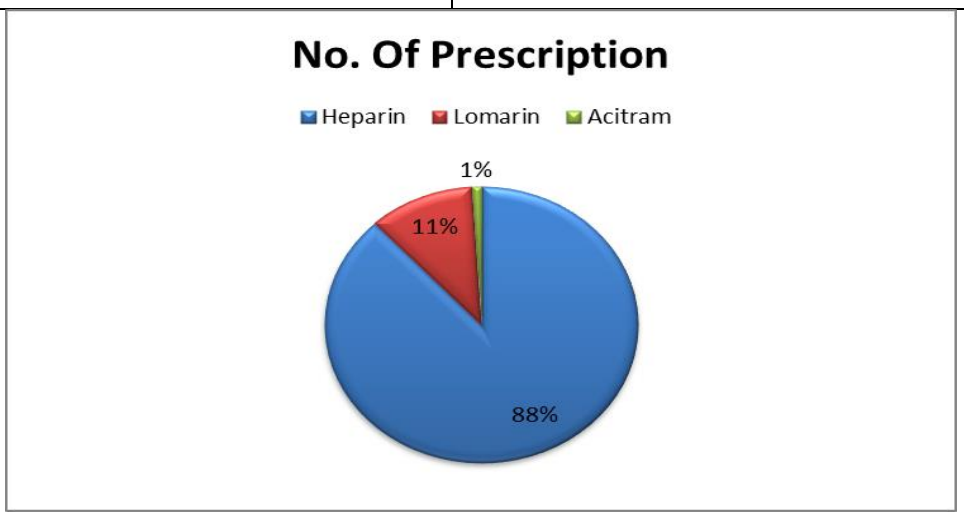


Figure 6.12.2(n): Anti-Coagulants

DRUG COMPLIANCE:

Drug Compliance Without Complication Is Seen In Most Of The Mi Patients In Our Study And Non-Compliance Without Complication Is The Least Observed In Our Study Population.

Table 6.13: Distribution Of Drug Compliance In Study Population

Type	No. Of Patients
Drug Compliance With Complication	11
Drug Compliance Without Complication	72
Non-Compliance With Complication	34
Non-Compliance Without Complication	6

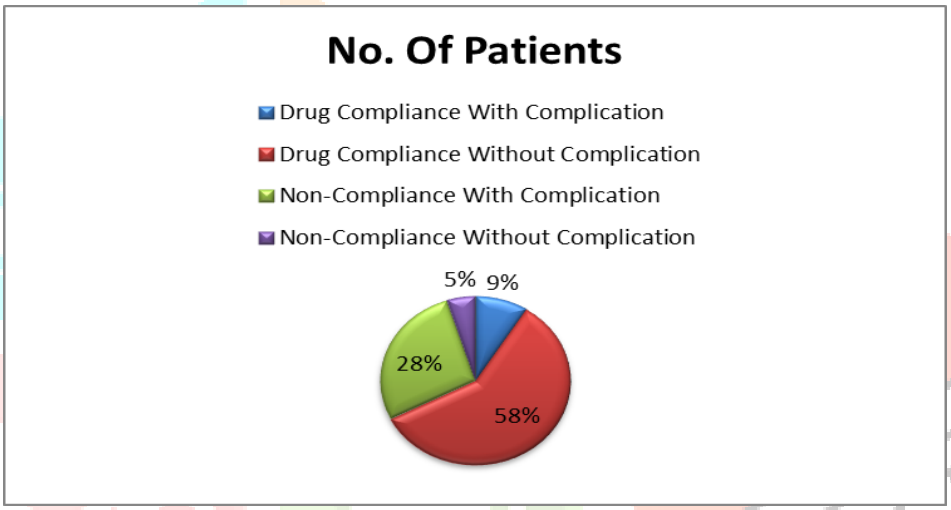


Fig 6.13(o): Drug Compliance

TYPE OF TREATMENT:

In our present study Angiogram was the most performed procedure in 103 subjects followed by PTCA STENT in 59 subjects & Bypass surgery was done in 7 subjects.4 subjects were Died in our study

Table 6.14: Distribution of Type of Treatment taken by patient in study population

Type	No. Of Patients
Angiogram	103
Ptca Stent	59
Bypass Surgery	7
Death	4

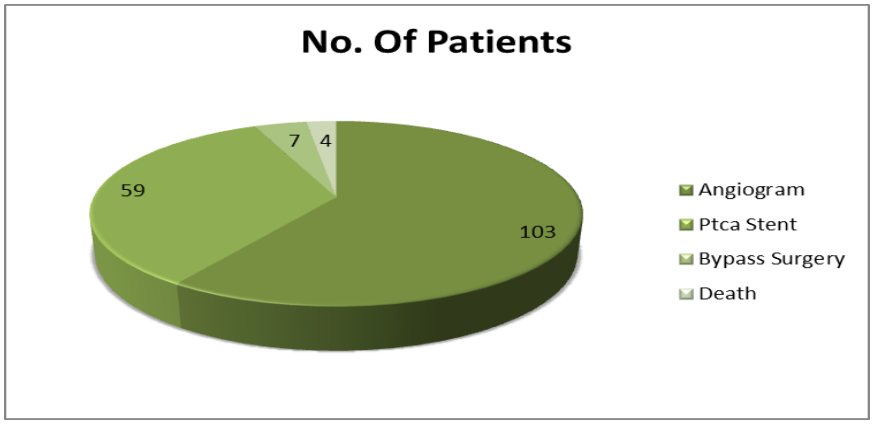


Figure 6.14(p): Type of Treatment

VII.DISCUSSION:

A prospective observational study was conducted at GGH Kurnool included 123 patients.

COMPARISON OF PREVALENCE:

Out of 123 patients, 99 were male and 24 were female.

In our study, the incidence of myocardial infarction is higher in men than in women**.**

COMPARISON OF AGE WISE DISTRIBUTION:

The age group 51-61 years old has been affected the most with 29.2%, followed by the age group 40-50 years old with 26.4%**,** there the age group of 46-55 years have affected more with 34%.

By marital status, 102 married men, 18 married women, and 3 unmarried men were categorized in this study.

The most common social behaviors among 66 male patients are smoking and alcohol consumption.

COMPARISION OF RISK FACTORS:

Myocardial infarction is associated with an extensive list of risk factors, including hypertension, diabetes, smoking, and alcohol consumption, a family history of coronary artery disease, age, and hypercholesterolemia. In this investigation, the most significant risk factors were alcohol (76), smoking (75), hypertension (69), diabetes mellitus (54), and a family history of coronary artery disease (8). Consistent with past prospective studies on MI, it is safe to believe that these findings are representative of the full cohort.

COMPARISON OF TYPES OF MYOCARDIAL INFRACTION:

In our present study, **AWMIs** had the greatest mean values (57), which is the type of **STEMI** and when it's all types are combined together it gives a total of 91%**,** where **STEMI** is the most common type of Myocardial infraction among others with 86%.

Myocardial infarction patients are classified as Normal, Mild, Moderate, or Severe based on the 2D-Echo results from our study group. The ejection factor determines these values. In our study, the majority of patients (35.7%) have moderate LVD, followed by mild LVD (28.4%), severe LVD and normal LVF (both 17.7%).

COMPARISON OF MEDICATION ADHERENCE:

The Morisky scale was utilized to evaluate medication adherence. On the basis of this score, the results for Poor Adherence, Moderate Adherence, and High Adherence were determined. Afterward, the proportion of patients with **Moderate Adherence** exceeded those with Low and High Adherence in our present study, they say **low adherence** was observed in patients.

COMPARISON OF CARDIOVASCULAR DRUGS:

Heparin, Ecospirin, Clopitab, Atorvastatin, Lomarin, Prax, Angiospam, Carnisure, Ivabrad, Syp. Cremaffin, Stigma Gold, Atropine, Elaxim, Aldactone, Sorbitrate, Spironolactone, Digoxin, Dytor Plus, Amidarone, and Nitrocartin are some of the cardiovascular drugs used to treat Myocardial Infraction in our study.

The results for the previously prescribed cardiovascular medications are as follows:

Heparin (89), Ecospirin (101), Clopitab (103), Atorvas (111), Lomarin (11), Prax (10),Angiospam (3), Carnisure (5), Ivabrad (16), Syp.cremaffin (5), Stigma Gold (1), Atropine (2),Elaxim (1), Aldactone (68), Sorbitrate (22), Spirinolactone (2), Digoxin (1), Dytor Plus (1),Amidarone (1), Nitrocartin (1).

The following miscellaneous medications were provided and utilized in this study:

Pantop (101), Telma (13), Montalac (2), H.Actropid (29), Nebulization (13), Ceftriaxone(3), Labetalol (1), Oribest (1), Metformin (4), Amoxiclav (2), Nor-adrenaline (1), PCT (6),Amlodipine (4), Mannitol (1), Ciprofloxine (2),Acitram (1), Vomicet(4), Cidmus(1), Ondonil(4), Optineuron(1), syp.ascoryl(3), Isoniazine(1), Tramadol(2), Enam(63), Lasix(89), Met-xl(78), Deriphyline(4), Thiamine(6), Dapsone(2), Azee (1).

The most common non-prescription medication in this study involved in 101 participants, while the least common non-prescription medications included Labetalol, Oribest, Mannitol, Acitram, Cidmus, Optineuron, Isoniazine, and Azee. In our study, Lasix, Met-Xl, Telmisartan, Amlodipine, Spironolactone, and Labetalol were the most frequently used antihypertensive medications.

COMPARISON OF ANTI-PLATELET DRUGS:

The most commonly used **Antiplatelet** medications in our analysis were Ecospirin (101), Clopitab (103), Prax (10), Angiospam (2), and Stigma Gold (1).

HEPARIN has 89 prescriptions and LOMARIN has 11 for **Anti-coagulants.**

COMPARISON OF ANTIHYPERLIPIDEMIC DRUGS:

- A total of 111 prescriptions for atorvastatin, the sole **Anti-hyperlipidemic** medication used in our study.
- In our study Drug compliance was observed under four categories. They are Drug compliance with complication, Drug compliance without complication, non-compliance with complication, Non-compliance without complication.
- The findings of the aforementioned categories are as followed as 11 subjects,72 subjects, 34 subjects and 6 subjects respectively.
- The complications which were observed in the non-compliance patients are fatigue, uneasiness, stunt thrombosis and ventricular tachycardia.
- In the current study, 103 participants underwent an angiogram, which was followed by PTCA STENT in 59 subjects and bypass surgery in 7 subjects.
- Four patients passed away during the course of our investigation.

VIII.CONCLUSION:

- The prevalence of myocardial infraction is very high and, on the rise. Prevalence of Myocardial infraction is higher in men, whereas the mean age of women at the time of incidence is higher.
- The majority of risk of myocardial infraction can be explained by Alcohol use, Smoking, Hypertension and Diabetes mellitus. Given that all of these factors are modifiable, the INTERHEART Latin America Study provides a scientific basis to develop preventive strategies that are practical and generally similar in the countries in the entire region.
- Medication adherence in our study was seen to be reducing over 3 months due to factors such as low monthly income and low educational status of the subjects. Employed, higher educated and those with comorbidities showed good adherence.
- Our study showed that initiation of treatment in both the genders and various age groups. The difference in the use of drugs on hospital admission might be due to the varied clinical presentation, or the time taken to present to the hospital following the acute episode.
- Our study leads us to the conclusion that the proportion of prescription medications with generic names needs to increase.

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