

RESULTS

A total number of 169 CAD patients with Post COVID-19 and without COVID-19 were enrolled into our study.

DISTRIBUTION OF POST COVID-19 AND NON COVID-19 PATIENTS IN CAD:

It was found that the study population was comprised of Post COVID-19 (62) and Non COVID-19 (38).

No. of Patients (Post COVID)	No. of Patients (Non COVID)	Post COVID%	Non COVID%
104	65	62	38

TABLE: 2

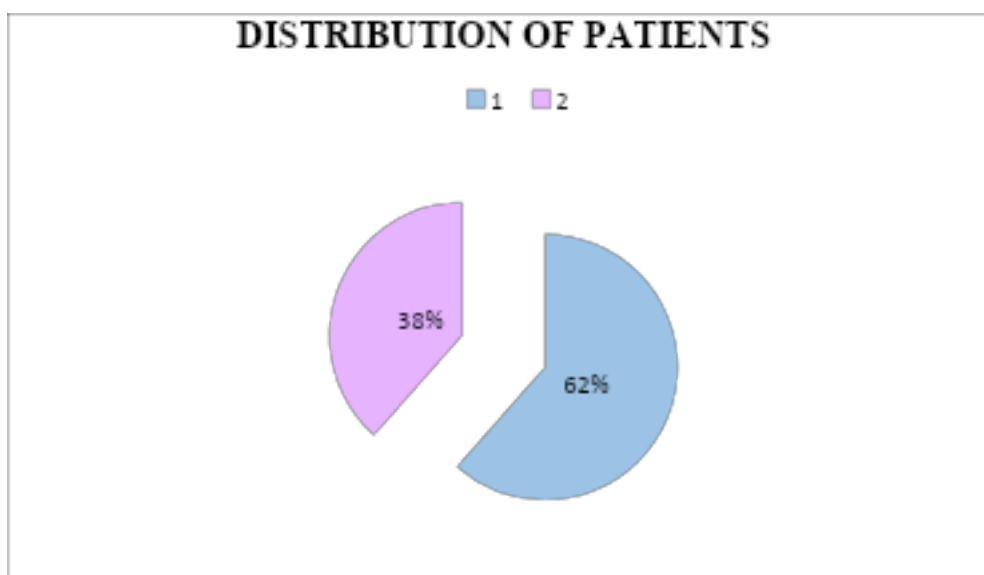


FIGURE: 19

EVALUATION OF GENDER IN CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

It was found that the study population consisted of 40.82% (male), 20.70% (female) Post COVID-19 patients and 26.62% (male), 11.83% (female) Non COVID-19 Patients.

S.NO	Gender	No. of patients (Post COVID)	No. of patients (Non COVID)	Post COVID%	Non COVID%
1	MALE	69	45	40.82%	26.62%
2	FEMALE	35	20	20.7%	11.83%

TABLE: 3

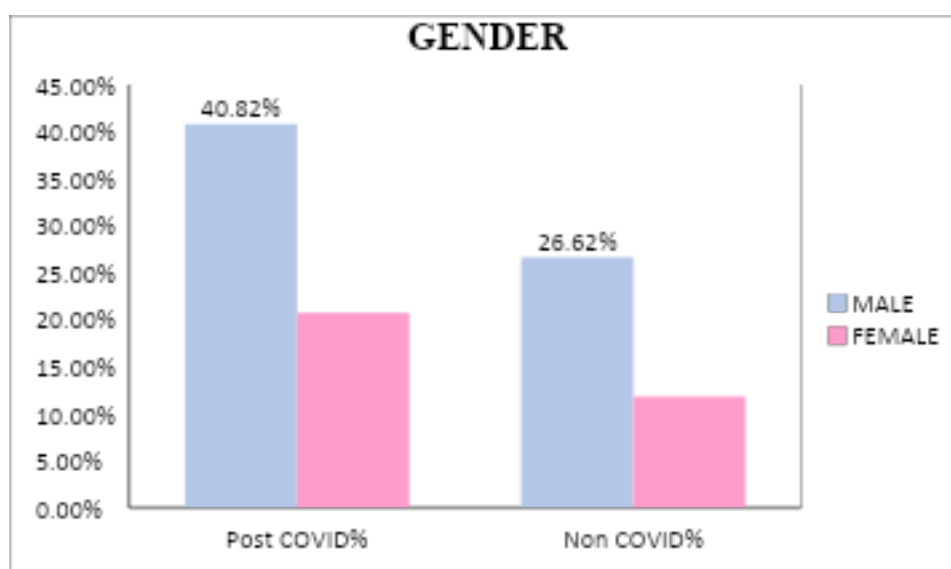


FIGURE: 20

DISTRIBUTION OF HEMOGLOBIN IN CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

It was found that the study population was comprised of hemoglobin in Post COVID-19 (13) and in Non COVID-19 (13.25) with significant p value ($p=0.0001$)

Hemoglobin	No. of patients	MEAN \pm SD	P VALUE
Post COVID	104	13.0 \pm 0.02327	0.0001*
Non COVID	65	13.26 \pm 0.020	

TABLE: 4

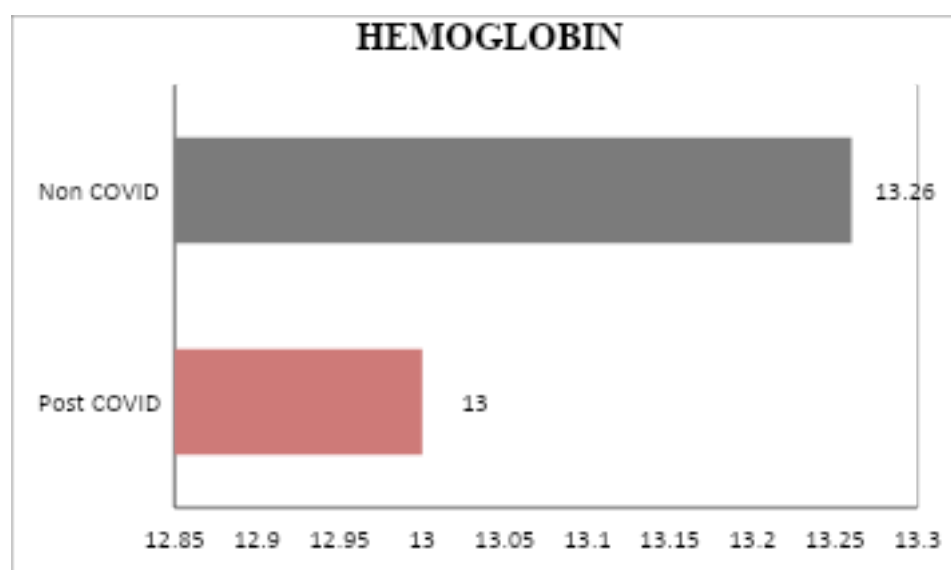


FIGURE: 21

EVALUATION OF HEMATOLOGICAL PARAMETERS BASED ON POST COVID-19 AND NON COVID-19 IN CAD PATIENTS:

It was found that Post COVID-19 patients was comprised of WBC (11988.46), Neutrophils (8103.19), Lymphocytes (1607.961) and Non COVID-19 patients with WBC (11570.769), Neutrophils (7893.523), Lymphocytes (2248.123).

WBC (p=0.0049), Lymphocytes (p=0.0001) shows significant p values.

Post COVID-19 patients have low number of lymphocyte count than Non COVID-19 patients.

Hematology	Post COVID (MEAN±SD)	Non COVID (MEAN±SD)	P Value
WBC	11988.46±5516.52	11570.769±4348.66	0.0049*
Neutrophils	8103.19±3988.69	7893.523±4385.796	0.7494
Lymphocytes	1607.961±579.1629	2248.123±876.412	0.0001*

TABLE: 5

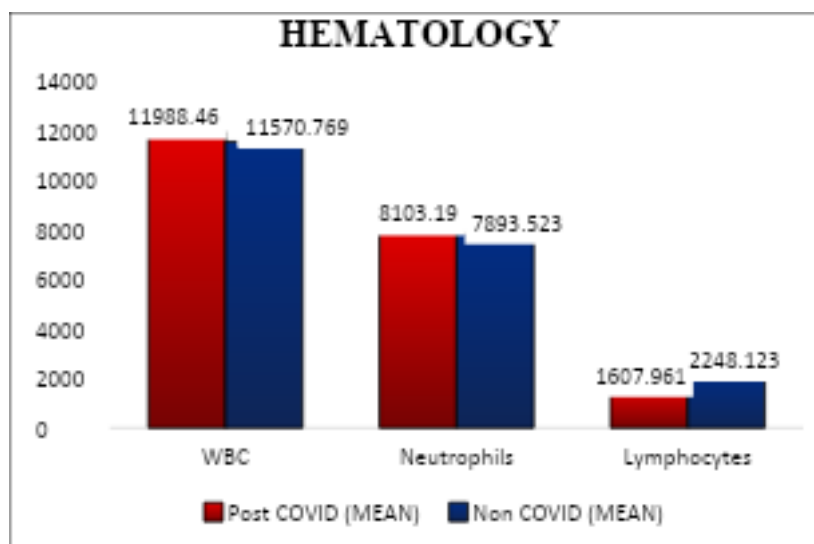


FIGURE: 22

DISTRIBUTION OF BIOCHEMICAL PARAMETERS BASED ON POST COVID-19 AND NON COVID-19 IN PATIENTS WITH CAD:

It was found that the study population was comprised of Renal Function Test (Urea (33.394)), Sr. Creatinine (1.27) Liver Function Test (SGPT (43.2153), SGOT (43.53), ALP (123.65)) and LIPID PROFILE (HDL (29.36), LDL (147.89), TG (271.134), TC (211.875) in post COVID-19 population. In Non COVID-19 Renal Function test (Urea (32.384), Sr. Creatinine

(1.1438)) Liver Function Test (SGPT (38.519), SGOT (42.52), ALP (141.29)) and LIPID PROFILE (HDL (31.70), LDL (131.707), TG (235.15), TC (201.38)).

Significant p values were observed in ALP (p=0.0360), LDL (p=0.0107), TG (p=0.0411)

Biochemistry		Post COVID (MEAN±SD)	Non COVID (MEAN±SD)	P Value
RFT	Urea	33.394±12.821	32.384±13.0811	0.6217
	Sr. Creatinine	1.27±0.79	1.1438±0.627	0.2770
LFT	SGPT	43.21538±23.12769	38.5194±16.256	0.1545
	SGOT	43.53±22.70	42.52307±25.28469	0.7887
	ALP	123.65±41.325	141.2938±67.21778	0.0360*
LIPID PROFILE	HDL	29.36±11.90	31.70769±10.5500	0.1747
	LDL	147.89±43.37	131.2307±36.3995	0.0107*
	TG	271.134±108.12	235.1538±114.4055	0.0411*
	TC	211.875±55.188	201.3846±68.5099	0.2755

TABLE: 6

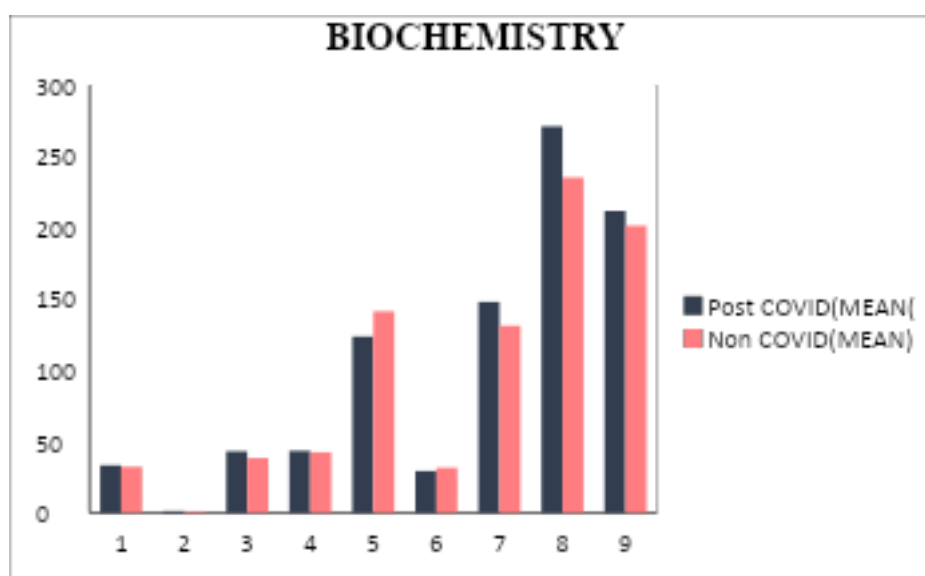


FIGURE: 23

2D ECHO FINDINGS IN POST COVID-19 AND NON COVID-19 PATIENTS WITH CAD: It was found that the Post COVID-19 was comprised of RWMA+ (47.30%), RWMA-(14.20%) and RWMA+ (13.01%), RWMA- (25.44%) in Non COVID-19 and had a significant p value of (p=0.0001).

2D-ECHO	No. of patients (Post COVID)	Post COVID %	No. of patients (Non COVID)	Non COVID %	P Value
RWMA+	80	47.3%	22	13.01%	0.0001*
RWMA-	24	14.20%	43	25.44%	

TABLE: 7

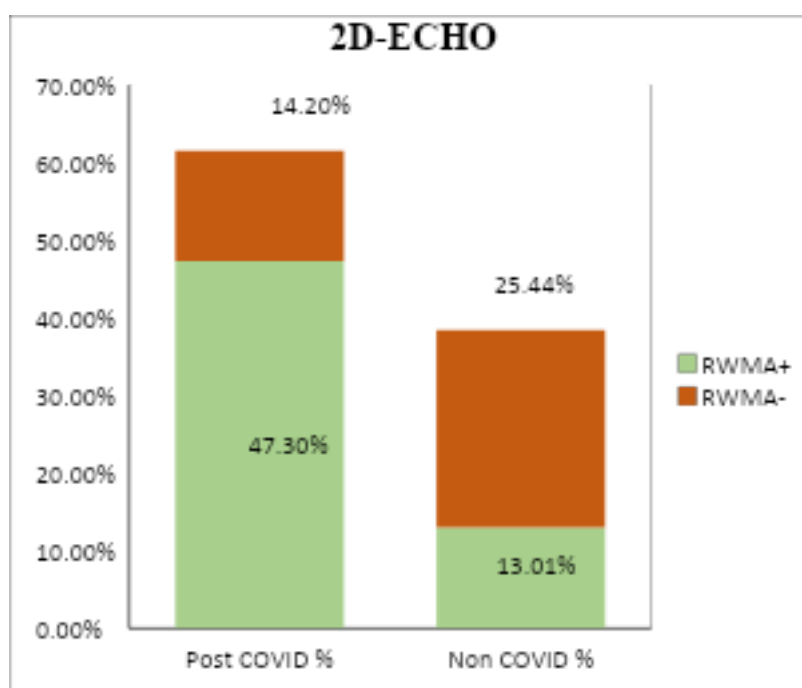


FIGURE: 24

DISTRIBUTION OF ECG IN CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

It was found that STEMI, NSTEMI in Post COVID-19 patients (51.47%), (8.28%) and in Non COVID-19 patients STEMI, NSTEMI (21.30%), (17.15%) respectively.

Significant p value was observed in STEMI (p=0.0001)

ECG	No. of patients (Post COVID)	Post COVID%	No. of patients (Non COVID)	Non COVID%	P Value
STEMI	87	51.47%	36	21.30%	0.0001*

NSTEMI	14	8.28%	29	17.15%	0.2401
--------	----	-------	----	--------	--------

TABLE: 8

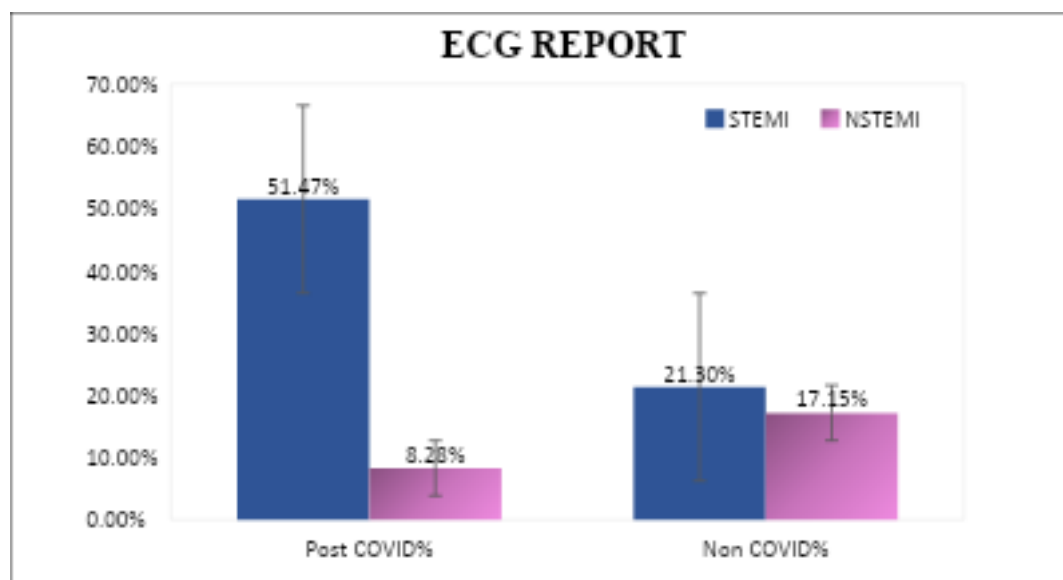


FIGURE: 25

EVALUATION OF BIOMARKERS IN POST COVID-19 AND NON COVID-19 PATIENTS WITH CAD:

It was found that the Post COVID-19 patients comprised of Troponin (1289.26), CPK-MB (163.4509), CRP (108.087) and Non COVID-19 patients with Troponin (926.0153), CPK-MB (112.833), CRP (48.36923).

Biomarkers had shown significant increase in the p value i.e, Troponin (p=0.0042), CPK-MB (p=0.0314), CRP (p=0.0001).

Biomarkers	Post COVID (MEAN±SD)	Non COVID (MEAN±SD)	P Value
TROPONIN	1289.26±860.984	926.0153±815.817	0.0042*
CPK-MB	163.4509±160.2389	112.833±124.299	0.0314*
CRP	108.087±76.7116	48.36923±49.9554	0.0001*

TABLE: 9

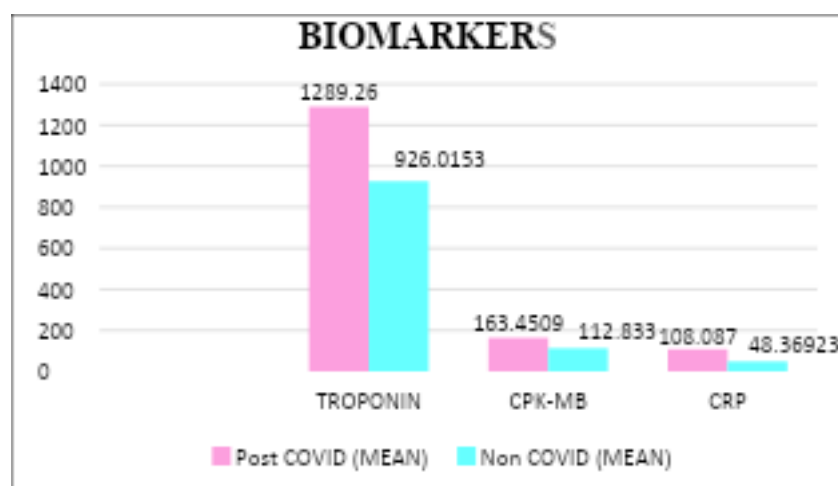


FIGURE: 26

EVALUATION OF BLOOD PRESSURE IN POST COVID-19 AND NON COVID-19 PATIENTS WITH CAD:

It was found that the Blood Pressure in Systole (134.182), Diastole (87.39) in Post COVID-19 patients and in Non COVID-19 patients, Systole (188.76) and Diastole (89.23).

It was observed that systolic blood pressure had the significant p value ($p=0.0001$)

Blood Pressure	Post COVID (MEAN±SD)	Non COVID (MEAN±SD)	P Value
SYSTOLE	134.182±23.453	188.769±95.322	0.0001*
DIASTOLE	87.394±13.775	89.230±22.101	0.5065

TABLE: 10

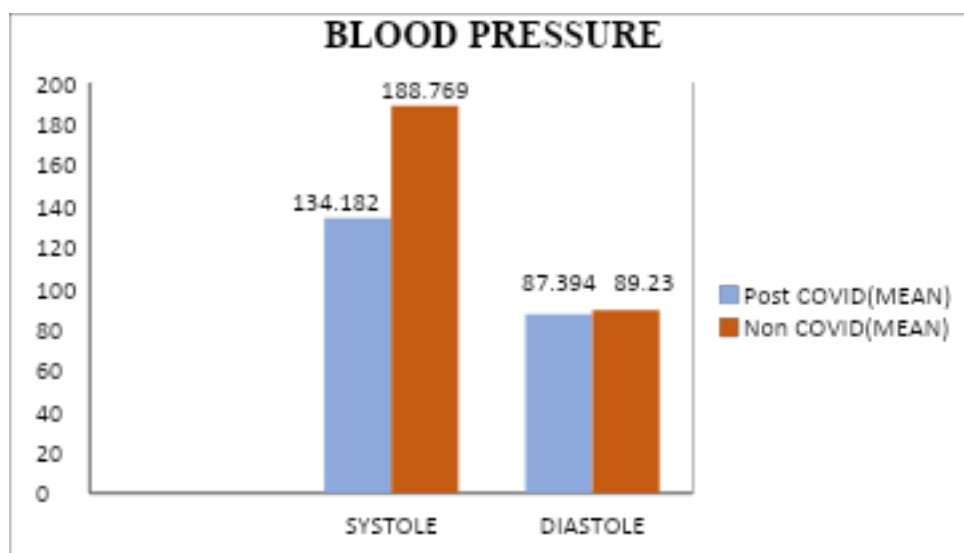


FIGURE: 27

DISTRIBUTION OF RANDOM BLOOD SUGAR IN POST COVID-19 AND NON COVID-19 PATIENTS WITH CAD:

It was found that the study population was comprised of Random Blood Sugar (211.231) in Post COVID-19 and in Non COVID-19 Random Blood Sugar (188.7692).

RBS	MEAN±SD	P Value
Post COVID	211.231±102.850	0.1574
Non COVID	188.7692±95.33211	

TABLE: 11

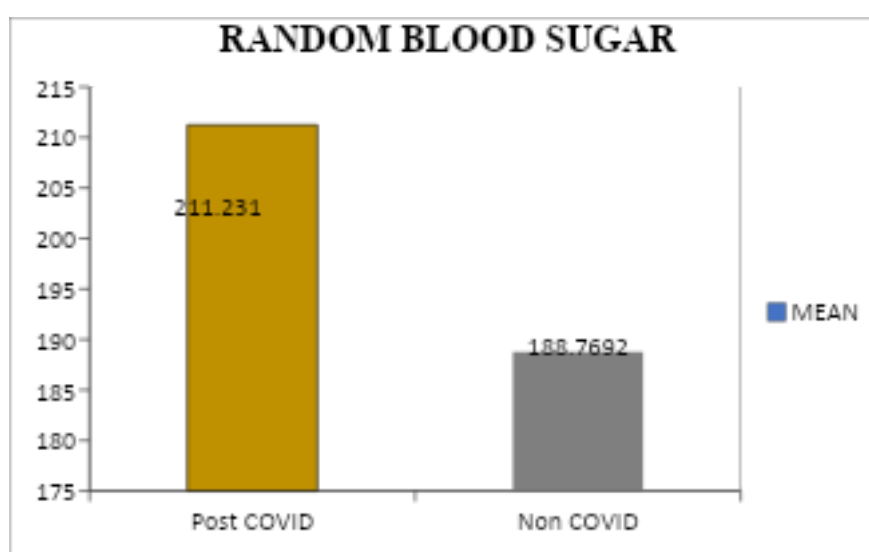


FIGURE: 28

SYMPTOMS OF CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

Each patient's data was collected, and symptoms of patients diagnosed with CAD (Post COVID-19 and Non COVID-19) were examined.

It was found that the Post COVID-19 comprised of Chest pain (71.1%), Cough (23.07%), Sweating (36.53%), Bipedal Edema (14.42%), Dyspnea (49.03%), Palpitations (38.46%), Epigastric pain (34.61%), Fever (32.69%), Vomiting (37.5%), Dyspepsia (29.80%) and in Non COVID-19 it has Chest pain (73.84%), Cough (16.92%), Sweating (35.38%), Bipedal edema (23.07%), Dyspnea (50.76%), Palpitations (15.38%), Epigastric pain (23.07%), Fever (13.84%), Vomiting (12.30%), Dyspepsia (12.30%).

Significant p values were observed in chest pain ($p=0.0001$), Palpitations ($p=0.032$), Epigastric pain ($p=0.043$), Fever ($p=0.034$), Vomiting ($p=0.043$), Dyspepsia ($p=0.034$).

Symptoms	No. of patients (Post COVID)	No. of patients (Non COVID)	Post COVID%	Non COVID%	P Value
Chest pain	74	48	71.1%	73.84%	0.0001 *
Cough	24	11	23.07%	16.92%	0.095
Sweating	38	23	36.53%	35.38%	0.087
Bipedal Edema	15	15	14.42%	23.07%	0.056
Dyspnea	51	33	49.03%	50.76%	0.078
Palpitations	40	10	38.46%	15.38%	0.032*
Epigastric pain	36	15	34.61%	23.07%	0.043*
Fever	34	9	32.69%	13.84%	0.034*
Vomiting	39	8	37.5%	12.30%	0.043*
Dyspepsia	31	8	29.80%	12.30%	0.034*

TABLE: 12

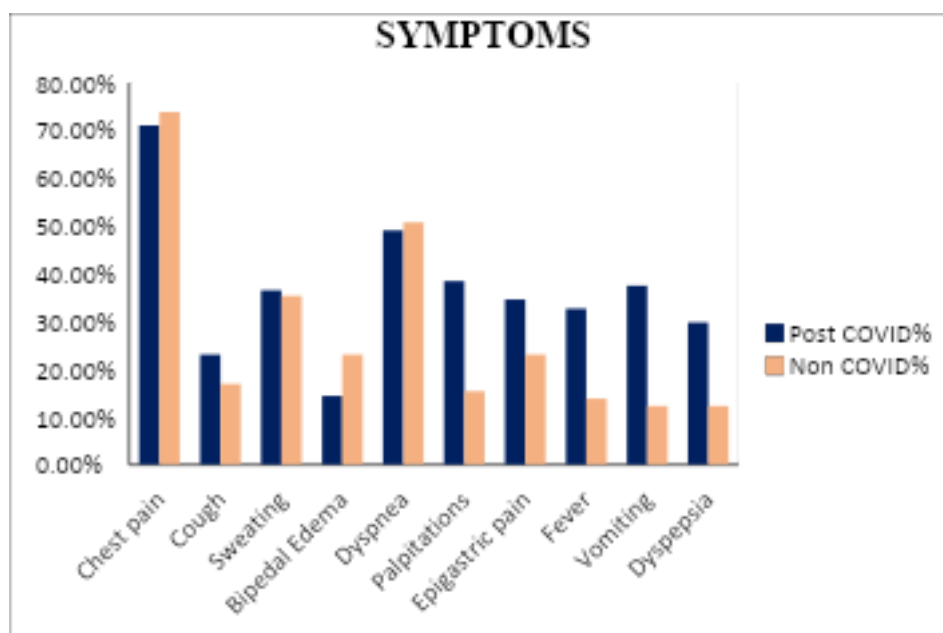


FIGURE: 29

PAST MEDICAL HISTORY BASED ON POST COVID AND NON COVID-19 STATUS IN CAD:

Past medical history based on Post COVID-19 and Non COVID-19 in patients who were diagnosed with CAD was collected.

It was found that the study population was comprised of CAD+CCF+DM+HTN+PTCA (6.50%),CAD+PTCA+DM+HTN(4.73%),CAD+DM+HTN(2.95%),CAD+HTN(3.55%),CAD+CCF+HTN(1.18%),CAD+PTCA+HTN(0.59%),CAD+PTCA(0.59%),CAD+PTCA+DM(0.59%),CAD+PTCA+HTN(3.55%),CCF+DM(0.59%),CCF+HTN(1.18%),PTCA+DM+HTN (5.32%),PTCA+DM(1.18%),PTCA+HTN(2.36%),PTCA(7.69%),HTN+DM(4.14%), DM(3.55%), HTN(2.36%), NO History (2.95%) in Post COVID-19.

In Non COVID-19, CAD+PTCA+DM+HTN (4.73%), CAD+DM+HTN (1.18%), CAD+HTN (4.14%),CAD+CCF+HTN(1.77%),CAD+PTCA+HTN(3.55%),CAD+PTCA(0.59%),CAD+PTCA+DM(0.59%),CAD+PTCA+HTN(3.55%),CCF+DM(0.59%),CCF+HTN(1.18%),PTCA+DM+HTN(5.32%), PTCA+DM (1.18%), PTCA+HTN(2.36%), PTCA (2.36%), HTN+DM (3.55%), DM (2.36%), HTN(2.95%), NO History (1.77%)

Diseases	No. of patients (Post COVID)	No. of patients (Non COVID)	Post COVID%	Non COVID%	P Value
CAD+CCF+DM+HTN+PTCA	11	0	6.50%	0%	0.076

CAD+PTCA+DM+HTN	8	8	4.73%	4.73%	0.067
CAD+DM+HTN	5	2	2.95%	1.18%	0.085
CAD+HTN	6	7	3.55%	4.14%	0.078
CAD+CCF+HTN	2	3	1.18%	1.77%	0.094
CAD+PTCA+HTN	1	6	0.59%	3.55%	0.067
CAD+DM	1	0	0.59%	0%	0.085
CAD	1	0	0.59%	0%	0.095
CAD+PTCA	0	1	0%	0.59%	0.087
CAD+PTCA+CCF+DM	5	0	2.95%	0%	0.084
CAD+PTCA+DM	1	1	0.59%	0.59%	0.095
CAD+PTCA+HTN	1	6	0.59%	3.55%	0.078
CAD+DM+CCF	3	0	1.77%	0%	0.085
CCF+PTCA+DM+HTN	1	0	0.59%	0%	0.067
CCF+DM+HTN	2	0	1.18%	0%	0.084
CCF+PTCA+DM	1	0	0.59%	0%	0.095
CCF+DM	1	1	0.59%	0.59%	0.078
CCF+HTN	3	2	1.77%	1.18%	0.068
PTCA+DM+HTN	5	9	2.95%	5.32%	0.076
PTCA+DM	3	2	1.77%	1.18%	0.098
PTCA+HTN	2	4	1.18%	2.36%	0.097
PTCA	13	4	7.69%	2.36%	0.087
HTN+DM	7	6	4.14%	3.55%	0.067
DM	6	4	3.55%	2.36%	0.078
HTN	4	5	2.36%	2.95%	0.068
NO	5	3	2.95%	1.77%	0.095

TABLE: 13

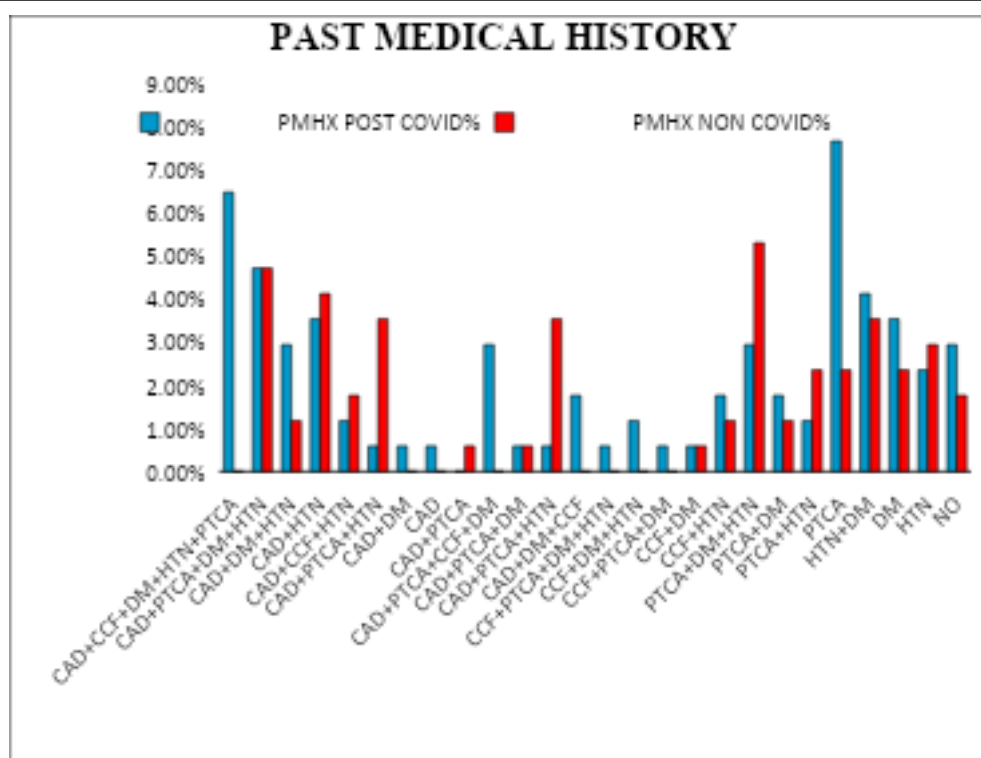


FIGURE: 30

DISTRIBUTION OF SOCIAL HISTORY IN POST COVID-19 AND NON-COVID-19 PATIENTS WITH CAD:

It was found that the Post COVID-19 was comprised of Alcoholic (42.30%), Smoker (25%), Alcoholic + Smoker (20.19%) and with No habits are (1.05%) and in Non COVID-19, Alcoholic (36.92%), Smoker (20%), Alcohol+ Smoker (33.84%) and patients with No habits are (12.30%).

S.NO	SOCIAL HISTORY	No. of patients (Post COVID)	No. of patients (Non COVID)	POST COVID %	NON COVID %	P Value
1	ALCOHOLIC	44	24	42.30%	36.92%	0.086
2	SMOKER	26	13	25%	20%	0.076
3	ALCOHOLIC + SMOKER	21	22	20.19%	33.84%	0.094
4	NO HABITS	11	8	1.05%	12.30%	0.064

TABLE: 14

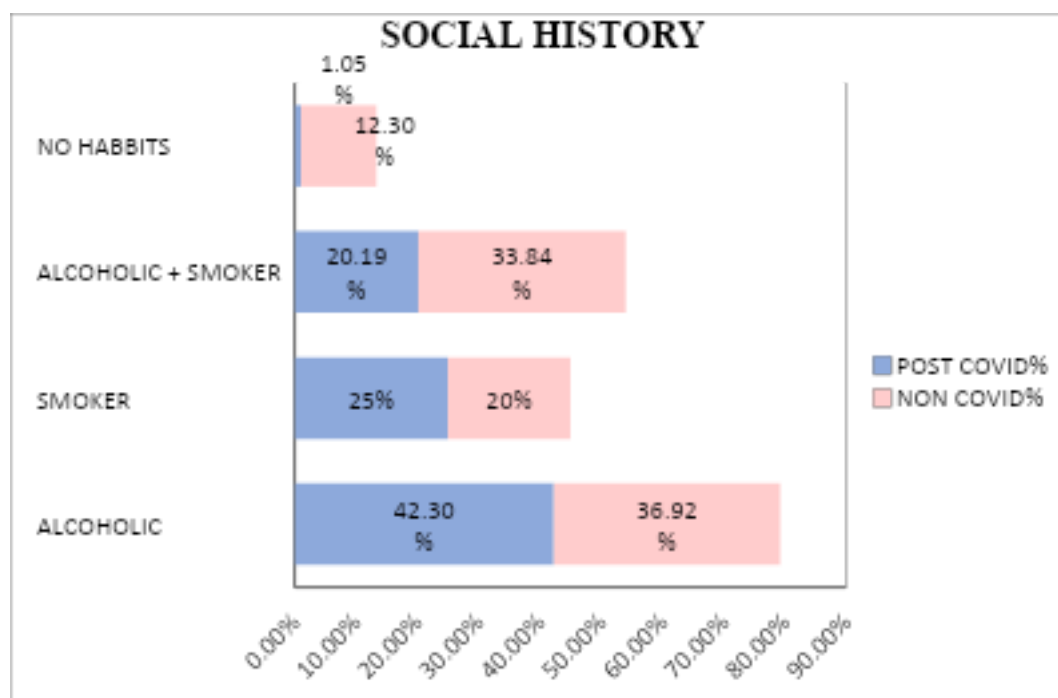


FIGURE: 31

RISK ASSESSMENT SCORE IN CAD PATIENTS WITH POST COVID-19 AND NON

COVID 19:

The study population comprised of post COVID-19 (30.1153) Non COVID-19 (22.20)

Risk assessment score	No of patients	MEAN±SD
Post COVID	104	30.1153±13.870
Non COVID	65	22.20±9.060

TABLE: 15

RISK ASSESSMENT SCORE

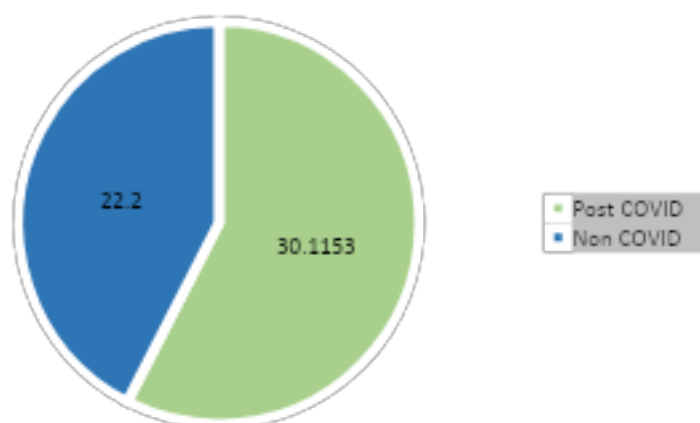


FIGURE: 32

DISTRIBUTION OF DISEASES IN CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

It was found that the Post COVID-19 was comprised of ACS (51.92%), ANGINA (43.36%), IWMI (14.42%), AWM (37.5%), PWMI (0.96%), LV-MILD (7.69%), LV-MODERATE (30.76%), LV-SEVERE (30.76%) and in Non COVID-19, ACS (58.46%), ANGINA (13.84%), IWMI (13.84%), AWM (27.69%), LV-MILD (20%), LV-MODERATE (32.30%), LV-SEVERE (16.92%).

Significant values were shown in Angina ($p=0.0001$), AWM ($p=0.043$), LV-mild($p=0.032$), LV- severe (0.025).

DISEASES						
	Category	No. of patients (Post COVID)	No of patients (Non COVID)	Post COVID %	Non COVID%	P Value
	ACS	54	38	51.92%	58.46%	0.076
	ANGINA	45	9	43.26%	13.84%	0.0001 *
MI	IWMI	15	9	14.42%	13.84%	0.089
	AWMI	39	18	37.5%	27.69%	0.043*
	PWMI	1	0	0.96%	0%	0.068
LVD	LV-MILD	8	13	7.69%	20%	0.032*
	LV-MODERATE	32	21	30.76%	32.30%	0.079

	LV-SEVERE	32	11	30.76%	16.92%	0.025*
--	-----------	----	----	--------	--------	--------

TABLE: 16

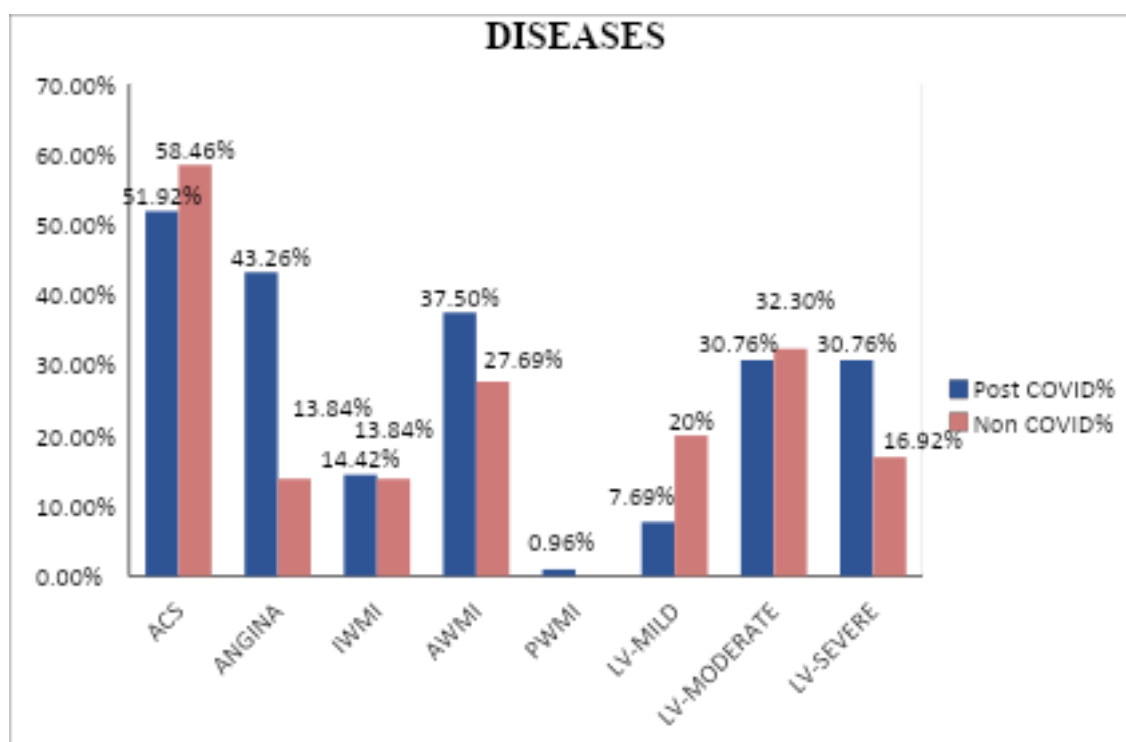


FIGURE: 33

DISTRIBUTION OF MEDICATION CHART IN CAD PATIENTS WITH POST COVID-19 AND NON COVID-19:

In the study population medications were distributed as Streptokinase 43.26%, 33.84%, Anti-coagulants 56.73%, 69.23% Nitrates 43.26%, 13.84% Beta blockers 52.88%, 43.07% Statins 69.23%, 73.84% in post COVID-19 and Non COVID-19 patients with CAD respectively.

MEDICATION CHART					
Drugs	Post COVID	Non COVID	Post COVID%	Non COVID%	P Value
STREPTOKINASE	45	22	43.26%	33.84%	0.067
ANTI COAGULANTS	59	45	56.73%	69.23%	0.041*
NITRATES	45	9	43.26%	13.84%	0.0001*
BETA BLOCKERS	55	28	52.88%	43.07%	0.092

STATINS	72	48	69.23%	73.84%	0.082
---------	----	----	--------	--------	-------

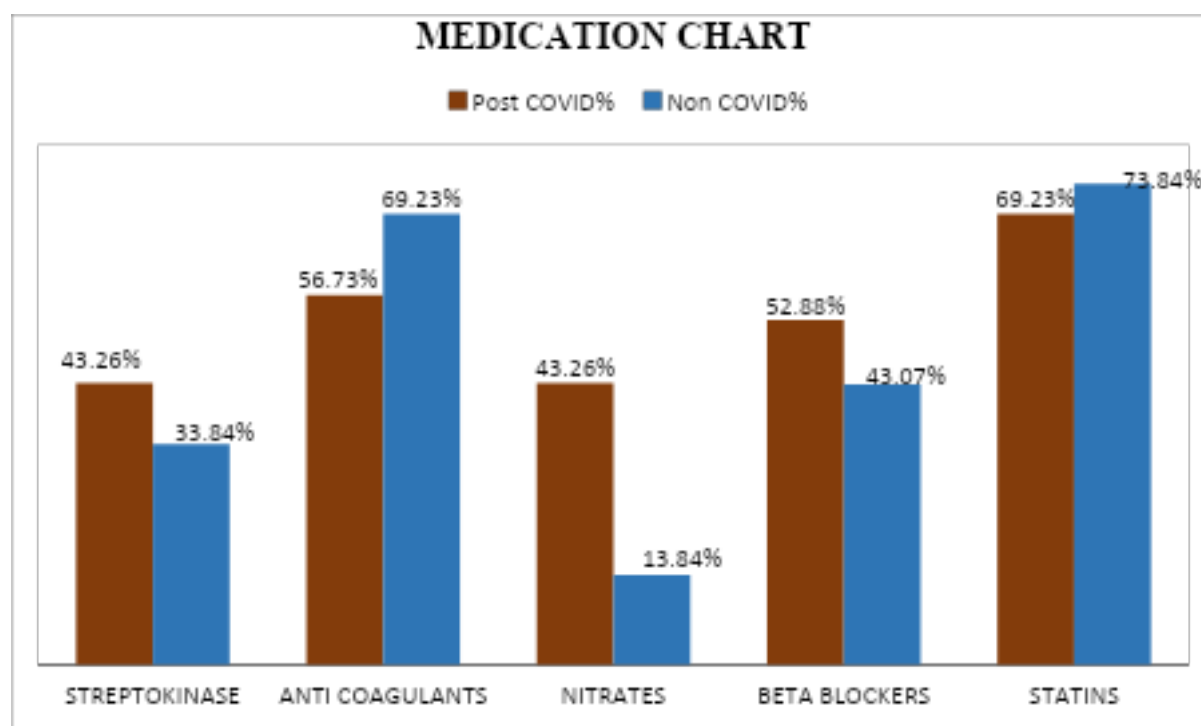


FIGURE: 34

Anti-platelets were distributed as 1 to 31.73%, 35.38%, 2- 47.11%, 40%, 3-18.26%, 13.84% and Anti-biotics 1-58.65%, 53.84%, 2-31.73%, 30.76%, 3-15.38%, 12.30% in post COVID-19 and Non COVID-19 respectively, Anti Hypertensives 1-56.73%, 58.46%, 2-33.65%, 27.69% and Anti-Diabetics 1-48.07%, 35.38%, 2-19.23%, 20% in post COVID-19 and Non COVID-19 patients with CAD respectively.

Drugs	No of drugs	Post COVID	Non COVID	Post COVID%	Non COVID%	P Value
ANTI PLATELETS	1	33	23	31.73%	35.38%	0.083
	2	49	26	47.11%	40%	0.067
	3	19	9	18.26%	13.84%	0.057
ANTIBIOTICS	1	61	35	58.65%	53.84%	0.063
	2	33	20	31.73%	30.76%	0.076
	3	10	8	15.38%	12.30%	0.065
ANTI HYPERTENSIVES	1	59	38	56.73%	58.46%	0.086
	2	35	18	33.65%	27.69%	0.067

ANTI DIABETICS	1	50	23	48.07%	35.38%	0.043*
	2	20	13	19.23%	20%	0.086

TABLE:17

EVALUATION OF SYNTAX SCORE IN POST COVID-19 AND NON COVID-19 PATIENTS:

It was found that patients with post COVID-19 had SYNTAX-1(25.22), SYNTAX-2 (32.43), PCI (14.5), SYNTAX-2 (21.9), CABG (10.95), TREATMENT RECOMMENDATION- CABG (0.75), PCI (0.2769) and Non COVID-19 patients had SYNTAX-1(18.02), SYNTAX-2 (15.133), PCI (12.77), SYNTAX-2 (20.26), CABG (8.104), TREATMENT RECOMMENDATION- CABG (0.72), PCI (0.2403).

The significant p values were observed in SYNTAX-1 (p=0.0001), SYNTAX-2 (p=0.0001), PCI(p=0.0001) CABG (p=0.0001)

SYNTAX SCORE	Post-COVID (Mean±SD)	Non-COVID (Mean±SD)	P Value
SYNTAX-1	25.22115±11.57652	18.0215±9.9762	0.0001*
SYNTAX-2	32.43070±10.0998	15.13384±16.13512	0.0001*
PCI	14.50±0.1138	12.773±0.119	0.0001*
SYNTAX-2	21.90865±7.8862	20.2615±7.509	0.1804
CABG	10.95±0.0891	8.104±0.0799	0.0001*
TREATMENT RECOMMENDATION	0.7596±0.4293	0.7239±0.4509	0.6066
PCI	0.2769±0.4509	0.2403±0.4293	0.5905

TABLE: 18

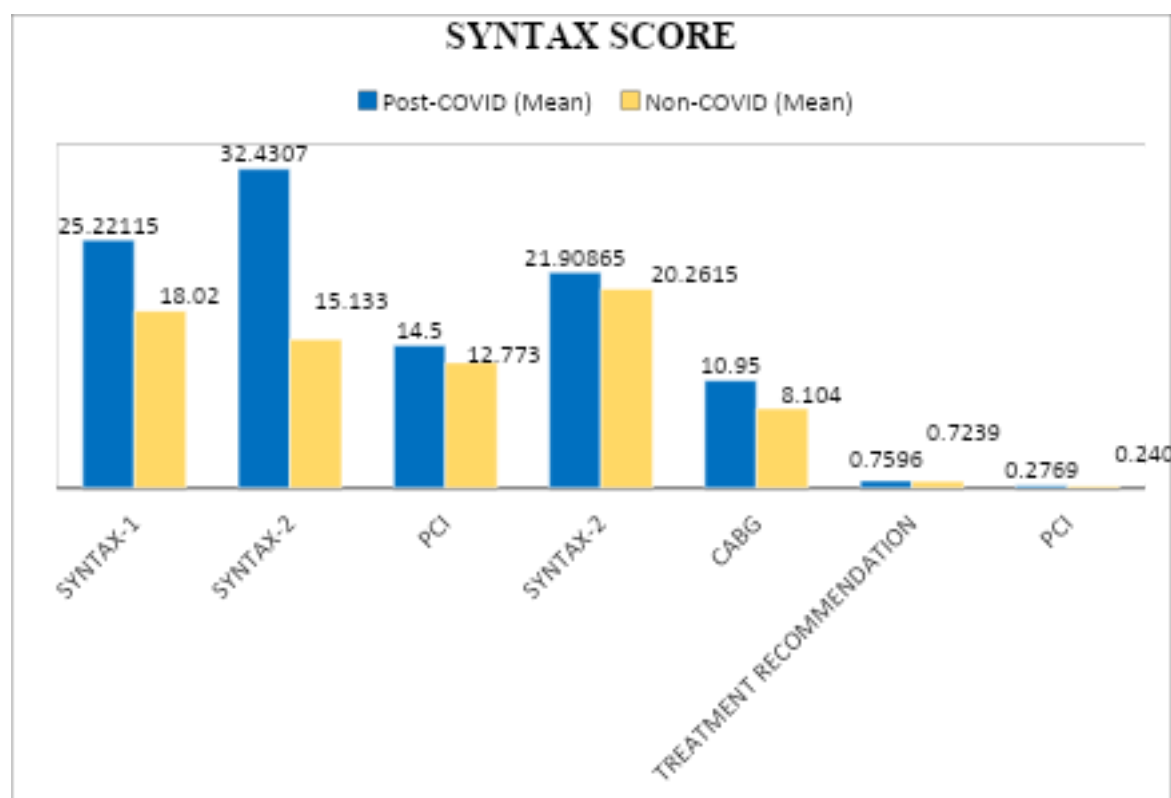


FIGURE: 35

EVALUATION OF TIMI SCORE IN PATIENTS WITH POST COVID-19 AND NON COVID-19 IN CAD:

It was found that the patients with post COVID-19 had TIMI SCORE (3.913), RISK (20.33) and Non COVID-19 patients had TIMI SCORE (2.9076), RISK (15.840).

Significant p values are shown in TIMI Score (p=0.0001) and in Risk (p=0.0026)

TIMI SCORE	Post-COVID (Mean±SD)	Non-COVID (Mean±SD)	P Value
TIMI	3.9134±1.33008	2.9076±1.3196	0.0001*
RISK	20.330±9.9860	15.840±8.050	0.0026*

TABLE:19

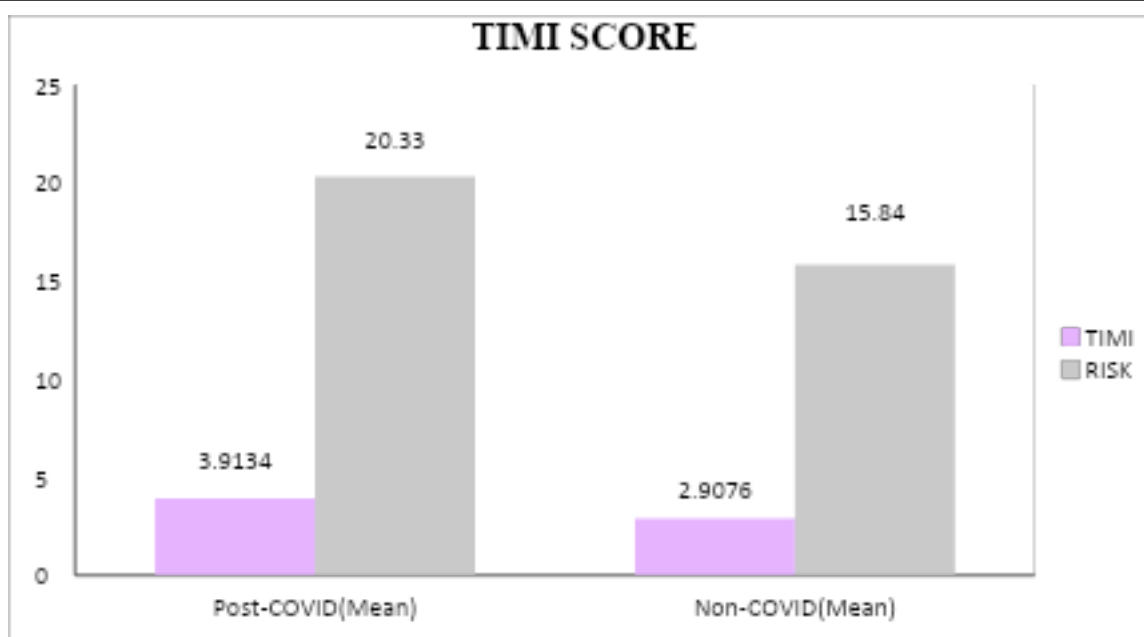


FIGURE: 36