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A Study On Association Between Type-2 Diabetes Mellitus And Mental Disorders.

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ABSTRACT

Diabetes mellitus (DM) is a chronic metabolic disorder that hinders the body's ability to use carbohydrates adequately while lipid metabolism is altered, that forces energy production on protein and metabolic compensation. In several aspects it is thought-about as psycho-somatic disease. Some mental disorders, particularly depression, are more common in diabetic patients compared to the remainder of the population. DM affects psyche of the patients, however at the same time, psychological state of the patients influences the course of diabetes. The causative links are completely different depending on the type of diabetes and mental disorder. Nonetheless, the association is determined on grade of emotions and mental processes, however additionally in biochemical and hormonal aspects. The importance of treatment adherence determines the health outcomes of patients with T2 DM (Type 2 Diabetes mellitus) and the difficulties that a lot of patients have in achieving diabetes treatment goals considers the role of psychopathology in patients with T2DM. The treatment of diabetes needs changes in health behavior and intensive self-management of treatment. The first objective of the current study is to check the association between Type 2 DM and mental disorders also to check the medication prescribing patterns in patients with Type 2 DM and mental disorders. Descriptive observational study was conducted for a period of 3 months at the psychiatry department of a tertiary care Hospital in Thrissur, Kerala, India after obtaining the ethical clearance. In - patients who were willing to take part in the study were included in the study. a total of one hundred patients were chosen for the study. Study materials used were hospital medical records of the patients. Maximum number of patients were found to be in the age group of 40-50 years. Most patients had duration of DM for 1-5 years psychiatric disorders also for 1-5 years. This shows that there could also be an association between type 2 DM and mental disorders. The mean FBS& RBS of patients were 165.52mg/dl and 239.83mg/dl the most frequently used medications were Tab. metformin 500 mg to treat DM. and Tab. lorazepam 2 mg for psychiatric disorders. Most patients had a duration of DM for 1-5 years & duration of psychiatric disorders also for 1-5 years. Which emphasized that the first few years of treatment was crucial for both type 2 DM as well as for mental disorders. This study concludes that there may be a association between type 2 DM and mental disorders and the role of psychological counseling cannot be ruled out for patients with type 2 DM.

Keywords: DM, Mental disorders, Health outcomes, Treatment adherence

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INTRODUCTION

Diabetes mellitus (DM) is a chronic metabolic disorder that hinders the body's ability to use carbohydrates adequately whereas lipid metabolism is altered, that forces energy production on protein and metabolic compensation. In several aspects it is thought-about as psycho-somatic disease.

Some mental disorders, particularly depression, are more common in diabetic patients compared to the remainder of the population. Diabetes affects psyche of the patients, however at the same time, psychological state of the patients influences the course of diabetes. The causative links are completely different depending on the kind of diabetes and mental disturbance.

Nonetheless, the association is observed on grade of emotions and mental processes, however additionally in biochemical and hormonal aspects. The importance of treatment adherence in crucial the health outcomes of patients with T2DM and highlight the difficulties that several patients have in achieving diabetes treatment goals as a context in which to consider the role of psychopathology in patients with T2DM.

The treatment of diabetes needs changes in health behavior and intensive self-management of treatment. These are tough tasks for many patients' with T2DM, and those who are affected by psychological issues are probably to have even larger issue. Therefore, clinicians have a vital chance to deal with health behavior and treatment adherence in their approaches to psychopathology in patients with diabetes.

Such an approach could improve not only the psychological outcomes of treatment, but may have a useful impact on health outcomes. The importance of treatment adherence determines the health outcomes of patients with T2DM however several patients face difficulties in achieving diabetes treatment goals that considers the role of psychopathology in patients with T2DM [1-8].

OBJECTIVE

The major objective of the study was to study the relationship between diabetes and psychiatric disorder and to analyze the medication pattern in these patients

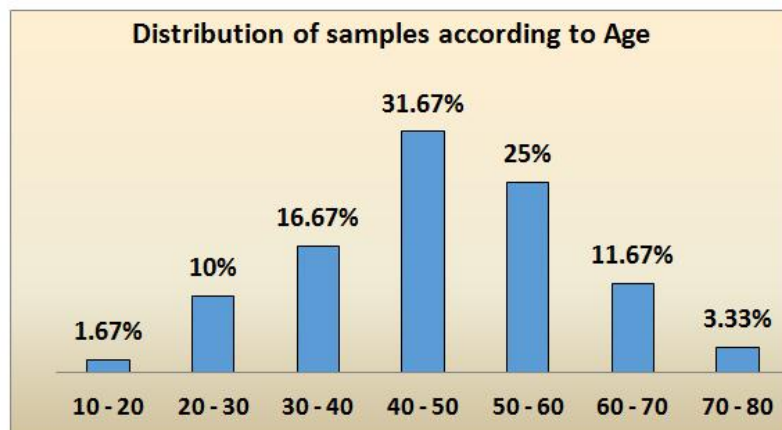
MATERIAL AND METHOD

The study was conducted at a tertiary care hospital Thrissur.

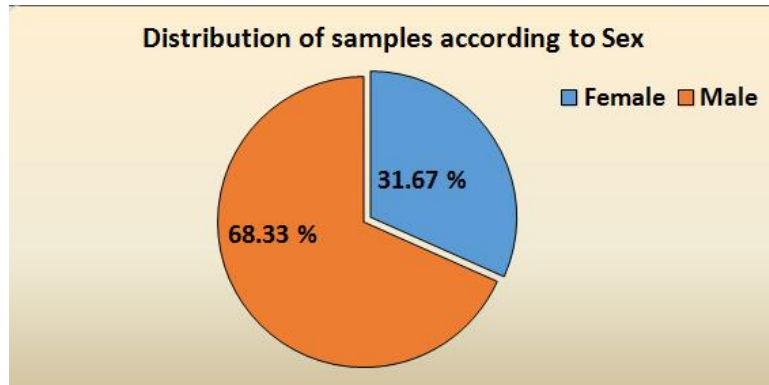
100 patients were randomly selected.

All patients suffering from both DM & psychiatric disorders were included in the study

Data was collected from the patients charts for a period of 3 months



DATA ANALYSIS, RESULT & DISCUSSION



Descriptive Statistics – Weight, FBS & RBS

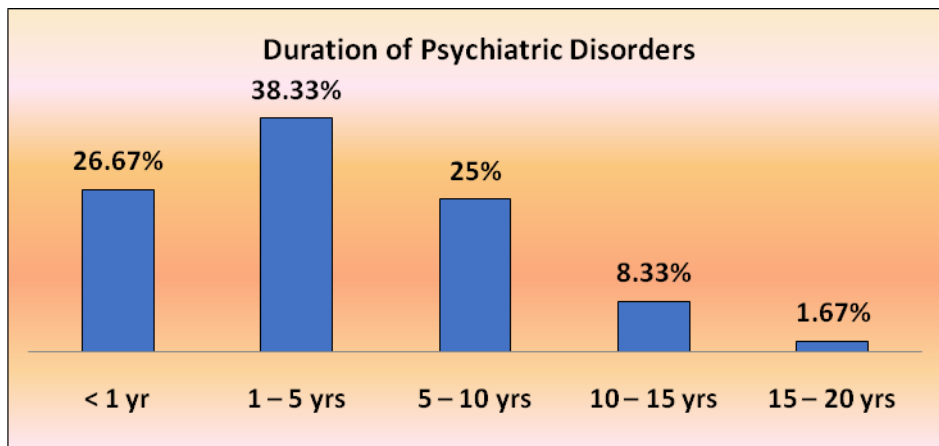
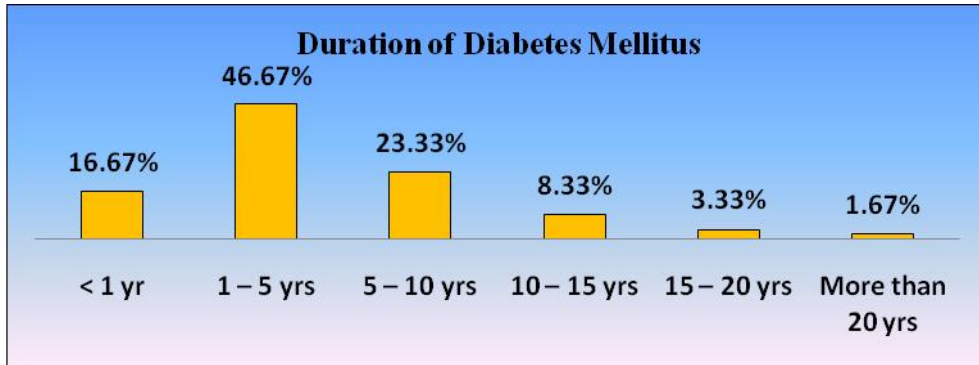
Parameter	Minimum	Maximum	Mean	Std. Deviation
Weight (Kg)	35	98	65.25	10.53
FBS	109	332	165.52	38.87
RBS	115	405	239.83	71.73

Distribution of samples according to their Medical History

Disease	Frequency	Percent
ADS-Apocalyptic despair syndrome- ,DM	1	1.7
ADS,DM,DEPRESSION	1	1.7
ALCOHOLIC DISORDER,DM	1	1.7
ALCOHOLIC WITHDRAWAL, BEHAVIOURAL CHANGES,DM	2	3.3
BPAD- Bipolar affective disorder, MANIAC,DM,	1	1.7
BPAD MANIAC,DM,TD-Thyroid disorder,HT	1	1.7
BPAD,DM	3	5.0
CHRONIC SCHIZOPHRENIA	2	3.3
DELIRIUM,DM	3	5.0
DEPRESSION,DELIRIUM,DM	1	1.7
DEPRESSION,DM	1	1.7
DM, ALCOHOLIC DEPENDENCE	1	1.7
DM, H/O CVA	1	1.7
DM,ADS	1	1.7
DM,DEPRESSION	1	1.7
FEARFULNESS,DEPRESSION	1	1.7
HT,DM, PSYCHOSIS	1	1.7
HT,DM,PARANOID PSYCHO	1	1.7
MANIA,DM	2	3.3
MDP- maniac depressive psychosis, DM	5	8.3
MDP, DM,MANIA	1	1.7
MDPM,DM	1	1.7
MOOD DISORDER,DM	1	1.7
OBESITY,MR WITH BEHAV	1	1.7
PARANOIDS SCHIZOPHRENIA	1	1.7
PSYCHO-SOCIAL ISSUES	1	1.7
PSYCHOSIS, DM	9	15.0
PSYCHOSIS,DM,TD	1	1.7
SCHIZOAFFECTIVE DISORDER	2	3.3

SCHIZOPHRENIA, DM	7	11.7
SEVERE DEPRESSION,DM	1	1.7
WERNICK'S ENCEPHALOPATHY	1	1.7
Total	60	100.0

Distribution of samples according to Duration of Diabetes Mellitus



Medication Pattern In Patients

Medication	No. of patients	Percent
Tab Metformin 500 mg	29	48.33 %
Inj. Actrapid	20	33.33 %
Tab Lorazepam	19	31.67 %
Inj. Insulatard	12	20 %
Tab Torvatechronon 500 (Sodium valproate+ Valproic acid)	7	11.67 %

The mean age of patient was found to be 31.67%.

The distribution based on sex showed that male patients were more than female patients.

The patient showed mean weight 65.25

Most patients had a duration of DM for 1-5 years & duration psychiatric disorders also for 1-5 years.

The mean FBS& RBS of patients were as follows

FBS:165.52
RBS:239.83

Tab.metformin 500 mg was most frequently used for DM.

Tab.lorazepam 2 mg was most frequently used for psychiatric disorders.

CONCLUSION

The study was conducted in patients with diabetes mellitus & psychiatric disorders, the study attempted to find an association between type 2 DM and mental disorders. The patients included in the study were within the age group 14-74 and the analysis showed that maximum number of patients were found to be in the age group of 40-50 years male patients were more than female patients.

The study found that there was an association between type 2 DM and mental disorders. The most common psychiatric disorder among diabetics was psychosis followed by schizophrenia. Most patients had a duration of type 2 DM for 1-5 years & duration psychiatric disorders also for 1-5 years. Thus we can conclude from the study that the initial 1-5 years of diagnosis of the disorder was crucial and needed monitoring of the patients.

The frequently used medication for diabetes was tab.metformin 500mg.

And frequently used medication for psychiatric disorder was tab lorazepam2mg .

LIMITATIONS: The study was carried out for a short period in limited number of patients so the entire picture could not be perceived. However the study did establish a causal relationship between type 2 DM and mental disorders. The study can be conducted in a larger number of patients for confirmed conclusions.

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