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A PROSPECTIVE STUDY ON INCIDENCE OF TYPES OF DIABETIES MELLITUS

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ABSTRACT

Objective: The main objective is to study Gender and Age difference among diabetic patient A prospective study on incidence of types of diabetes mellitus at Tulasi Multi Specialty, Hospital Guntur. To improve quality of life health care status caused by economic growth of the patient. **Materials and method:** It is a prospective study done at Tulasi Multi Specialty Hospital, Guntur. The records of all patients who had Diabetic Mellitus was extracted by using patient data collection forms. **Result:** A total of 302 patient consisting of 197 males (65%) and 105 females (35%) were enrolled. Among these 17 patients were diagnosed as Type 1 DM (Males-13 females -4) where 291 patients were diagnosed as Type 2 DM. (Males -291 and Females-17). The age group between 21-50 (27.14%) more with Type 1 DM. **Conclusion:** It was concluded that, males are more effected than females. Type I diabetic patients are mostly young adults, middle and old age people are diagnosed as T2DM. diabetic patients with irregular usage of medication, improper diet intake, lack of exercises, depression leading to various microvascular and macrovascular complications.

KEYWORDS: Type 1 diabetis, Type 2 diabetis, Gender differention, Age factor, Diabetis Mellitus.

INTRODUCTION

Diabetes is referred to a group of diseases characterized by high glucose level in blood. It is caused by a deficiency in the production or function of insulin or both, which can occur

because of different reasons, resulting in protein and lipid metabolic disorders. The long-terms effects of hypoglycemia are tissue and organ damage.

Symptoms of diabetes include polyuria, thirst, vision disorders, and weight loss. In some cases, there are more severe forms of diabetic ketoacidosis and hyperosmolar that may lead to stupor and coma. But most symptoms are not severe, which may cause damage or even failure of different organs in the long run and lead to irreparable injuries such as blindness, amputation, stroke and eventually death. Previously, type 1 diabetes was called insulin -dependent diabetes and it could happen at any age but is most common in children and young people.

People with type 1 diabetes are not able to produce enough insulin. This type constitutes about 5%-10% of all cases of diabetes. In this type, the cellular destruction of beta cells occurs in the pancreas. In type 1 diabetes, the pancreas dose not release any insulin. Since there is no epidemiologically accurate information on the prevalence and incidence of type 1 diabetes 1 in the world and in the region, therefore, the present study was designed and implemented as a systematic review and meta -analysis, because of geopolitical map of the policy on the prevention and treatment of this disease can be done better.

The most common of diabetes is type 2 according to the CDC, 90 to 95 percent of people with diabetes in the United States have type 2. Just 5 percent of people have type 1. About 422 million people worldwide have diabetes, the majority living in low -and middle -income countries, and 1.5million deaths are directly attributed to diabetes each year.

MATERIALS AND METHODS

Study design: It includes the patients, usage of antidiabetic drugs in Tulasi multispecialty hospital, Guntur. To study the incidence of types of diabetic mellitus and antidiabetic drugs.

Study period: 6 months (June 2023- December 2023)

Source of data: Tulasi multispecialty hospital, Guntur (private hospital).

Methods of collection of data: By reviewing case sheets, by reviewing prescriptions.

Study population: All outpatients and inpatients of endocrinology department of Tulasi multispecialty hospital in Guntur.

Sample size: 302 patients were analyzed and studied.

Sampling criteria

Inclusion criteria

All patients diagnosed with diabetes mellitus.

Prescription containing one or more antidiabetic drugs.

Exclusion criteria

Pediatrics.

Prescription with improper details or incomplete details.

RESULTS AND DISCUSSION

In this study males (65%) effected more than females (35%) data were depicted in figure 1. Recent study shows the prevalence of diabetes mellitus more in males compared to females but the reason is unclear. Risk factors for the DM are age, lifestyle modifications, lack of exercise, highs blood pleasure, depression, genetic, over weight. A study conducted by Patrico Fernando Lemes Dos Santos et al, among 175 adults ages 18-64 years in inner town of central- western Brazil reveal that men have lower knowledge regarding the DM compared to women. Syed waif Gillani et al, in his study states that women significantly reported high destress level and low social functioning than men. Another study by Shaista Malik et al, states that men have high risk fatal and nonfatal cardiovascular events as well as 40% greater risk for all-cause mortality.

Table 1: Gender categorization.

S.no	Parameters	Frequency	Percentage
1	Males	197	65%
2	Females	105	35%

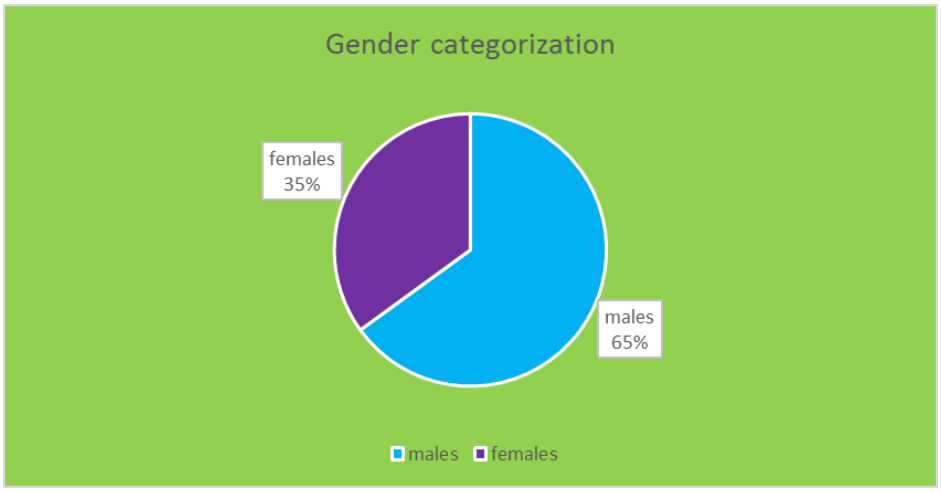

Fig 1: Gender categorization of males and females.

The age of onset is typically different, with T1DM (hereditary) being diagnosed most often in younger people, while type 2 diabetes is diagnosed more commonly in adults. However, this is not always the case. The increasing incidence of obesity among children and adolescence has caused a rise in the development of T2DM in young people. Further, some adults with diabetes maybe diagnosed with a form of late- onset T1DM. in T2DM, the pancreas produces insulin, but the body cannot use it effectively, whereas in T1DM no longer production of insulin because of pancreatic beta cell damage by immune system. A fasting blood sugar (<100mg/dl) and random (non- fasting) blood glucose (<200mg/dl) measurement can be used to diagnosed any type of diabetes. This study reveals that patients are affecting more with type 2 DM than type 1 DM. 17 patients are diagnosed as type 1 DM accounting with 6%, 285 patients has been diagnosed as type 2 DM, accounting with 94% as shown in **fig 2.**

Table 2: comparison of Type 1 DM and Type 2 DM.

Parameters	Type 1 DM	Type 2 DM
No of patients	17	285

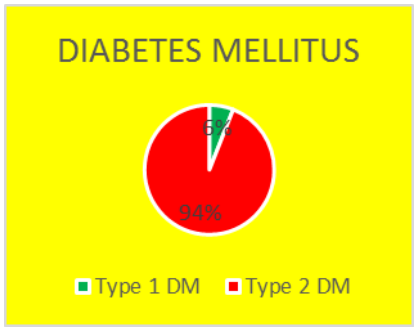

Figure No. 2: Comparison between Type 1 DM and Type 2.

The male diabetic patients are observed to be living more affectively with diabetes lesser, depression and anxiety but more energy and better positive well- being than women. Christa Meisinger et al, observed sex related differences in his study among 3052 cases of male and 3114 cases of female. systolic blood pressure, regular smoking and high daily alcohol intake predicted the development of DM in men, whereas uric acid and physical inactivity during leisure time were associated with diabetic development in women. In both T1 DM and T2 males were affected more than females as shown in

Table No. 3: Gender differentiation of Type 1 DM and Type 2 DM.

Parameters	Type - 1	Type - 2
Males	13	203
females	4	82

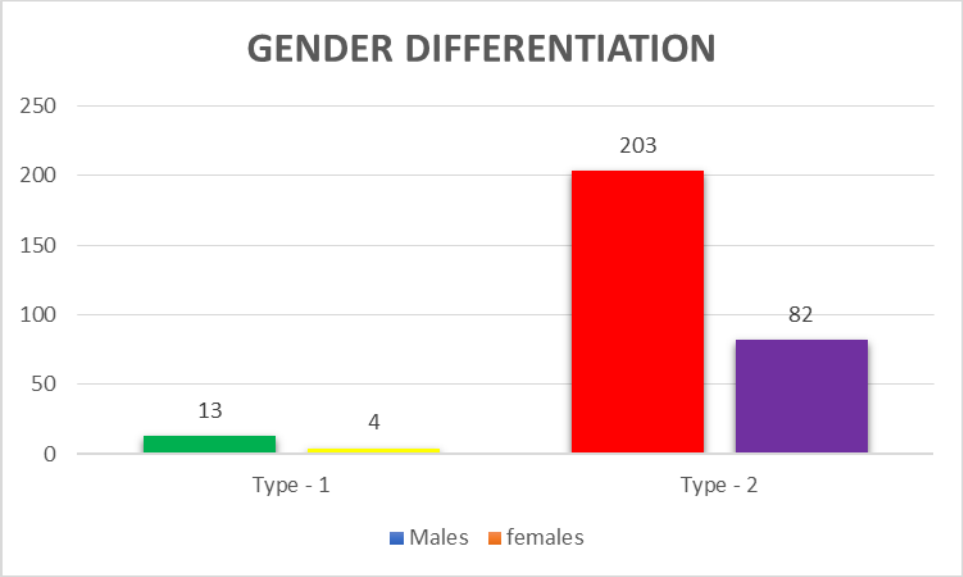

Fig. 3: Gender differentiation of Type 1 DM and Type 2 DM.

Gender distribution of males and females in diabetes mellitus

The prevelence of diabetic was incresed with advancing age. Decline beta cell proliferation and incresed sensitivity to apoptosis are -related problem. In this study 41-50 are group are pictorially represented.

Table 4: Type 1 Dm Based on Age Factor.

AGE IN YEARS	MALES	FEMALES
21 – 30	6	2
31 – 40	6	2
41 – 50	0	0
51 - 60	0	0
61 – 70	0	0
71 – 80	0	0
81 - 90	1	0

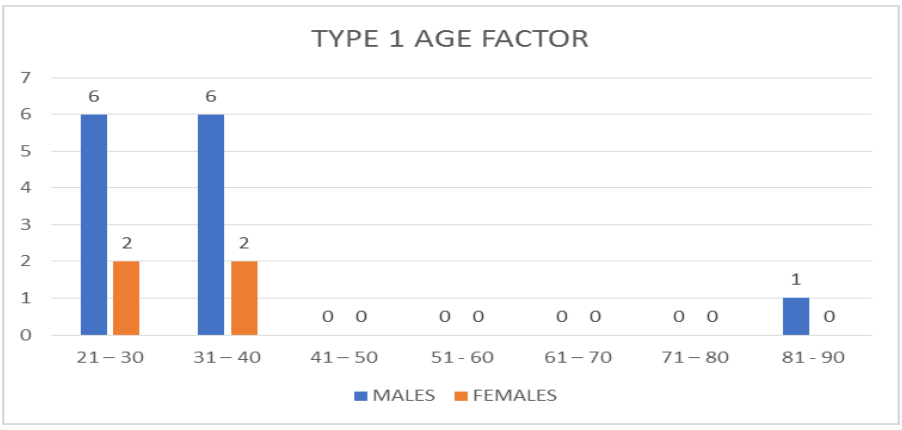

Fig. 4: Type 1 Dm Based on Age Factor.

Table 5: Type 2 Dm Based on Age Factor.

AGE IN YEARS	MALES	FEMALES
10 - 20	0	1
21 – 30	20	5
31 – 40	50	19
41 – 50	55	24
51 - 60	47	15
61 – 70	20	6
71 – 80	15	6
81 - 90	2	6

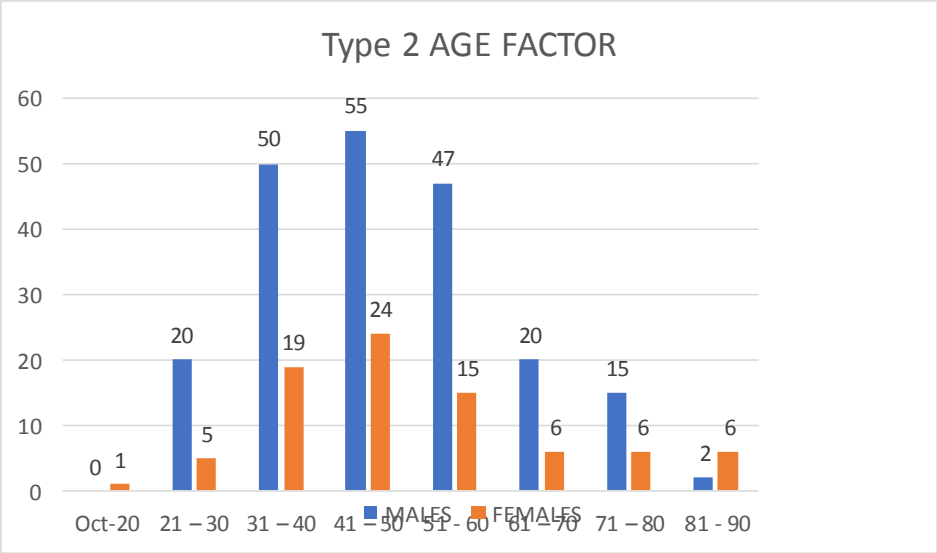

Fig. 5: Type 2 Dm Based on Age Factor.

CONCLUSION

It was concluded that, males are more effected than females. Type I diabetic patients are mostly young adults, middle and old age people are diagnosed as T2DM. diabetic patients with irregular usage of medication, improper diet intake, lack of exercises, depression leading to various microvascular and macrovascular complications

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