

Clinical Presentations of Type II Diabetes

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ABSTRACT

Background: Type 2 diabetes mellitus is one of the leading causes of morbidity and mortality worldwide and is even a bigger threat to the developing countries. Early recognition and treatment initiation is the key to successful future course of the disease.

Methods and results: 1012 newly diagnosed diabetics were selected who presented to the diabetic outpatient department of Ghurki Trust Teaching Hospital from January 2013 to December 2016. Out of them 469 were males and rest were females. Their age was between 26–78 years. History was taken and the cause of getting their blood sugar checked was determined. Major presenting complaints were polyuria and / or nocturia in 303(29.9%) patients, leg pains or fatigue was present in 198(19.56%), eye problems and numbness and paresthesia were present in 193(19.05%) and 138(13.6%) patients respectively. Other presenting complaints were polyphagia 19(1.8%), weight loss 62(6.5%) and miscellaneous 99(9.7%). Out of miscellaneous only 10 were incidentally discovered as diabetics.

Conclusions: Patients likely to develop diabetes (family history, obesity etc) should have their blood sugar levels checked regularly for early diagnosis of diabetes. The typical symptoms of diabetes likely polyuria, polydipsia or polyphagia were present only in one third of patients

Keywords: Type 2 diabetes mellitus,

INTRODUCTION

World today is facing an epidemic of Diabetes mellitus. Asian countries are main contributors being more than 60% of world diabetics¹. The health care and socioeconomic burden of diabetes is alarming in Pakistan as well as many other Asian countries. The World Health Organization (W.H.O.) has estimated that incidence of diabetes will be doubled in next 25 years with developing countries bearing the larger burden². A recent survey showed that about 8.8 million people are suffering from diabetes in Pakistan and this number is estimated to be doubled in the year 2025^{3, 4}. Survey of Pakistani population have shown a 4% prevalence of diabetes in the adult population. Diabetes is a dreaded disease because it can cause morbidity and mortality specially if not properly controlled. Early diagnosis without complications has a more favorable prognosis. Periodic monitoring according to guidelines is important. In our country patients usually presents late often after developing some type of complication. The problems with which diabetics presents are usually nonspecific or related to complications of diabetes. In this study we have tried to determine various presenting complaints of diabetic populations so they can be subjected to early investigation and prompt diagnosis

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MATERIALS AND METHODS

This study was conducted at diabetic clinic Ghurki trust teaching hospital from January 2013 to December 2016. 1012 consecutive diabetic patients who were newly diagnosed were included. The inclusion criteria included patients more than 25 years of age, diagnosed on the day of interview or within 1 month of visit as type 2 diabetics. The patient meeting any one of the following criteria was diagnosed as diabetic

- HbA1c > 6.5%
- 2 or more fasting blood sugar levels of >126mg/dl
- 2 or more random blood sugar levels of >200mg/dl patients who agreed to tell the symptoms at diagnosis

Type 1 diabetic patients less than 25 years who were not mentally well or not sure about their symptoms of diabetes were excluded. After taking informed consent, patient's symptoms were ascertained. Patients' first or the major symptoms for which they were forced to have diabetes checked were recorded. The symptoms which were recorded as the cause should have been there for 4 weeks or more. The data was analyzed on SPSS version 21.

RESULTS

One thousand and twelve patients were included in the study. Their age was between 26 – 78 years. Mean age was 48.4 years. 696 (68.7%) patients were from 31 – 50 years. Age distribution is shown in

figure 1. Out of 1012 patients 469(46.3%) were male and 543(53.7%) were female (Fig. 2). Major presenting complaints were polyuria and / or nocturia in 303(29.9%) patients, Eye problems, numbness and paresthesia were present in 193(19%) and 138(13.6%) patients respectively. Other presenting complaints were pain in legs on rest and excessive fatigue 198(19.56%), polyphagia 19(1.8%), weight loss 62(6.5%) and miscellaneous 99(9.7%). The distribution of different symptoms is shown in figure 3

Out of the miscellaneous presentations most common was delayed wound healing. 31(3%) patients did not have any symptoms and were Fig. 1: Age distribution

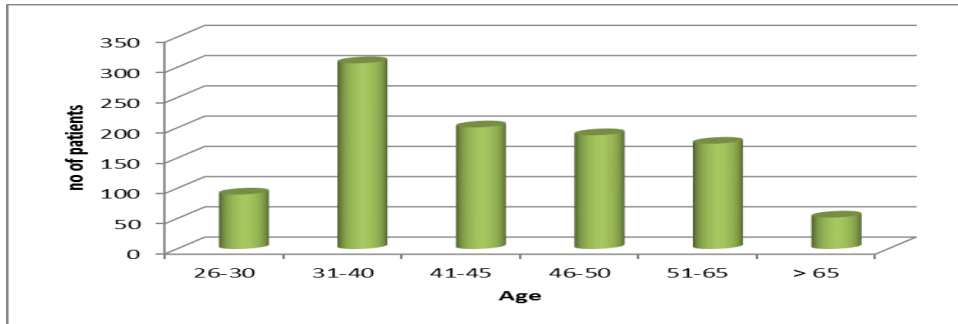


Fig. 2: Gender distribution

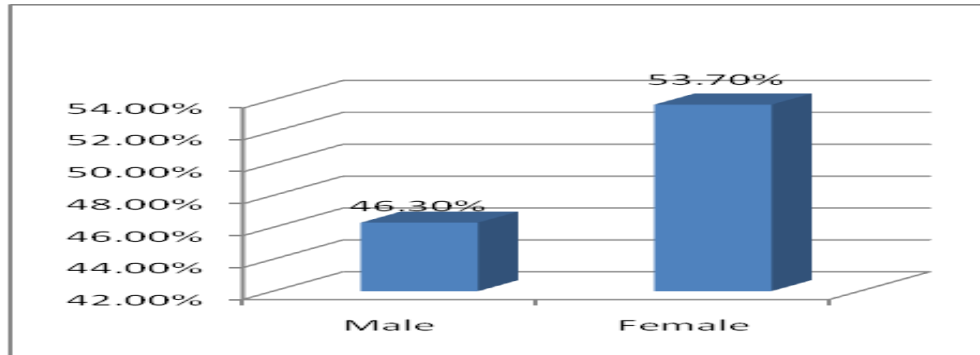
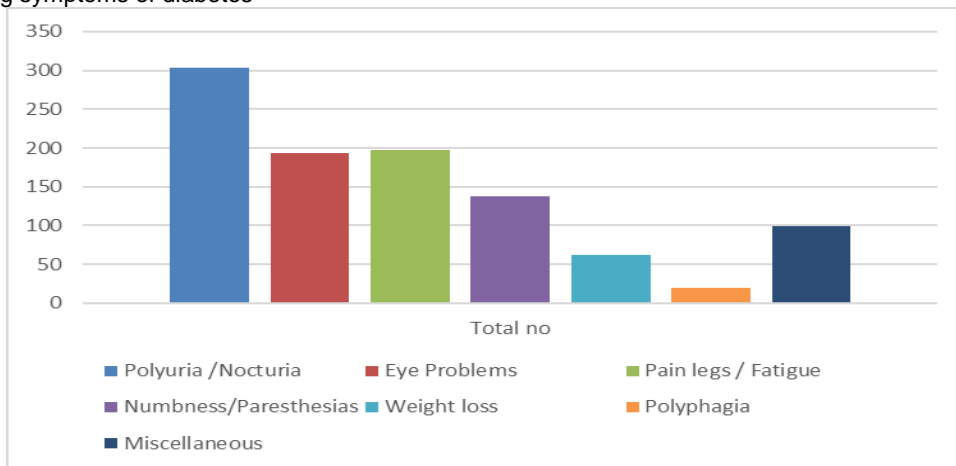


Fig. 3: Presenting symptoms of diabetes



discovered incidentally due to some other causes. Other complaints with which patients presented are shown in table 1

Table 1: Distribution of miscellaneous symptoms

Delayed wound healing	24
Dental problems	13
Vulvar itching	11
Joint stiffness	8
Intermittent claudication	7
Gestational Diabetes	5
Incidental	31

DISCUSSION

Early type 2 diabetics are often do not have any symptoms and the disease may be diagnosed many years after it sets in.^{5,6} As many as 25% of patients may have already developed one or more micro vascular complication before it is diagnosed⁷.

Approximately one-fourth U.S. and nearly half of Asian and Hispanic Americans have undiagnosed diabetes⁸. This is due to asymptomatic hyperglycemia for a few years before symptoms and complications of diabetes. In some studies, type 2 diabetics had diabetes for at least 4-7 years at the time of diagnosis⁹. In the United Kingdom Prospective Diabetes Study, 25% of diabetics had retinopathy; 9%, neuropathy; and 8%, nephropathy at the time of diagnosis¹⁰.

In our study the most common presenting symptom was polyuria and nocturia. This was followed by feeling of generalized fatigue and pain in the legs. Eye problems and paresthesia were next in line. Only 31 patients were incidentally discovered.

In SHIELD study, findings indicated that the most commonly reported symptoms in any of the patient groups were frequent urination and increased fatigue which were also the main findings in our study. Though this study only took into account the symptoms of diabetes and not the complications as the presenting symptoms¹¹.

In another study by Bhaskar ME et al, only 4% of patients were diagnosed incidentally which is supporting our findings of 3%. Also 40% of their patients presented with either polyuria, nocturia, polydipsia, polyphagia or fatigue which supports our findings¹².

In our population the concept of regular screening for type 2 diabetes is missing and most of the people are not aware of so patients usually present after they develop any symptoms related to diabetes or its complications. In a country like Pakistan where diabetes has hit like an epidemic, it is advisable to test patients for diabetes than to miss the millions with silent disease. More studies are required to help improve our screening recommendations for diabetes among patients who are yet to develop the symptoms of hyperglycemia

REFERENCES

1. Ramachandran A, Snehalatha C, Shetty AS, and Nanditha A. Trends in prevalence of diabetes in Asian countries. *World J Diabetes*. 2012 Jun 15; 3(6): 110–117.
2. Amos AJ, McCarty DJ, Zimmet P. The rising global burden of diabetes and its complications; estimates and projections to the year 2010. *Diabetic Medicine*, 1997; 14 (suppl):S7 - S84.
3. Shera AS, Rafique G, Khawaja IA, et al. Pakistan National Diabetic Survey: prevalence of glucose intolerance and associated factors in Shikarpur, Sindh province. *Diabetic Med*.1995; 12:1116-21.
4. Tarin SMA. Global 'epidemic' of diabetes. *NMJ* 2010; 2(2):56-60
5. U.K. Prospective Diabetes Study Group. U.K. prospective diabetes study 16. Overview of 6 years' therapy of type II diabetes: a progressive disease. *Diabetes*. 1995;44:1249-1258.
6. Nathan DM. Clinical practice. Initial management of glycemia in type 2 diabetes mellitus. *N Engl J Med*. 2002;347:1342-1349.
7. UK Prospective Diabetes Study (UKPDS). VIII. Study design, progress and performance. *Diabetologia*. 1991;34:877-890.
8. Menke A, Casagrande S, Geiss L, Cowie CC. Prevalence of and trends in diabetes among adults in the United States, 1988–2012. *JAMA* 2015;314:1021–1029
9. Harris MI, Klein R, Welborn TA, Knudman MW. Onset of NIDDM occurs at least 4-7 yr before clinical diagnosis. *Diabetes Care*. 1992 Jul. 15(7):815-9.
10. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). UK Prospective Diabetes Study (UKPDS) Group. *Lancet*. 1998 Sep 12. 352(9131):837-53.
11. Nathaniel G. Clark NG, Fox KM, Grandy S. Symptoms of Diabetes and Their Association With the Risk and Presence of Diabetes. Findings from the Study to Help Improve Early evaluation and management of risk factors Leading to Diabetes (SHIELD). *Diabetes Care* 2007 Nov; 30(11): 2868-2873.
12. Bhaskar ME, Sowmya G, Moorthy S, Kumar NS, Praveena R, Kumar V. Presenting Features of Diabetes Mellitus. *Indian J Community Med*. 2010 Oct-Dec; 35(4): 523–525.