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Research Article

ASSESSMENT OF THE PREVALENCE OF DIABETIC AND ASSOCIATED COMPLICATIONS IN PATIENTS VISITED TERTIARY CARE HOSPITAL OF DERA ISMAIL KHAN KPK PAKISTAN

Dr Tahir Ghaffar ¹, Dr Khalid Usman ², Dr. Salman Khan ³, Dr Nisar Khan ⁴, Altaf Ali Mangi ^{*5}, Eshwa Dar ⁶

¹Assistant Professor Lady Reading Hospital Peshawar KPK, ²Associate Professor diabetes & Endocrine Unit Hayatabad Medical Complex Peshawar, ³District Headquarter Teaching Hospital Dera Ismail Khan, ⁴Mufti Mehamood Memorial (MMTH) Hospital Dera Ismail Khan KPK Pakistan, ⁵Faculty of Pharmacy Gomal University Dera Ismail Khan KPK Pakistan. ⁶Department of Pharmacy the university of Lahore Punjab

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Abstract:

Objective: Diabetes mellitus (DM) is a clinical syndrome of disordered metabolism and chronic hyperglycemia due to relative insulin deficiency, inefficiency or both. Diabetes Mellitus is very noxious and fatal if the proper care is not exercised. The purpose of the current study is to assess the prevalence of Diabetes Mellitus Type II among patients visited the tertiary care Hospital of Dera Ismail Khan

Methodology: The descriptive cross sectional study was carried out to find out the prevalence and triggered complications of the Diabetes Mellitus type II. The sample purposive technique was used to collect the sample and the instrument questionnaires was used to collect the Data.

Results: A total 300 patients were selected and the questionnaire was administered among 350 patients but only 300 properly filled questionnaires were received from the patients and included in the study which makes the total response rate about 85.7%. And their verbal consent was ensured.

Conclusion: Most of the Patients were suffering from Diabetes Mellitus type II and poorly managed patients had more associated complications.

Keywords: Prevalence, Diabetes Mellitus, Complications.

Corresponding author:

Altaf Ali Mangi,
Ph-D scholar faculty of Pharmacy,
Gomal University Dera Ismail Khan KPK Pakistan,
Email: Pharmacistsindh41@gmail.com.
03313421263.

QR code



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INTRODUCTION:

Person with pre-diabetes are expected to convert into type II diabetes and they have more chances of heart diseases and stroke.(1-2)

As we know that the diabetes is increasing worldwide day by day without any particular cause. The global warming and sudden climatic change may cause of diabetes, after the discovery of insulin in the decades of 1930s many cases of Type I diabetes are reported.(3-4) There are many geographical and ethical differences are present to prevent the causes of Type I diabetes, according to geography many cases were reported in USA (United States of America) and very rare cases were found in South Asia and Japan. In European countries only 0.3% of population were reported with Type I under the age of 30 years, it was concluded that Type I diabetes is increased sharply at puberty time and reduces afterward. Approximately 50-60% of type I diabetes patients were reported under the age of 20 years. Type II diabetes or Non-Insulin dependent diabetes is very common than type I. it was estimated that about 80-85% population of diabetic people had type II diabetes and its onset of age is above 40 years. With reference to statistical data it was assumed that about 1.5 million of population of U.K was diagnosed with type II diabetes many were undiagnosed.(5-6-7) Type II diabetes is diagnosed over the age of 40 years and there are many chances of occurrence of type II in the condition of obesity.(8-9-10) The prevalence of type

II is 1-2% in the nonobese population and according to ethnic and geographical variations it is concluded that diabetic value is more common among immigrant of USA than the local indigenous population, some study concluded that the chances of Type II is 20 time more in the population who are eating in huge quantity and obese than the lean population.(10-11)

METHODOLOGY:

The descriptive cross sectional study was made at the tertiary care Hospital of Dera Ismail Khan KPK Pakistan for the period of Eight months the mentioned Hospital is one of the major hospital providing the medical facilities to the numerous patients of Khyberpakhunkhwa Pakistan .The sample purposive technique employed to collect the sample size .The detailed questionnaire was administered among 350 patients and only 300 properly filled questionnaires were received and those patients were recruited for study. In addition to this their medical charts were also taken into the consideration and discussed with the clinical Pharmacist .The verbal consent was sought from the patients who were included into the study ..Those patients who were suffering from Diabetes Mellitus type II were included in the study and patient having disinterest or who were mentally unsound were excluded from the study.

Table 01 : Gender wise distribution of the sample.

Gender	Number (percentage)
Male	205(68.33)
Female	95(31.77)

Table 01 Shows the gender distribution of the sample .

Table 02: Age wise distribution of the Diabetes Mellitus

AGE GROUP	FREQUENCY	PERCENTAGES
40-50 Years	78	26%
51-60 Years	87	29%
61-70 Years	135	45%

Table 02 depicts the age wise prevalence of Diabetes Mellitus Type II

Table 03 Prevalence of Diabetic Mellitus Associated complications

Complication	Frequency	Percentage
Diabetic Neuropathy	70	23.33
Diabetic Retinopathy	63	21
Diabetic Nephropathy	28	9.33
Hypertension	37	12.33
Impotence	45	15
Gastro paresis	22	7.33
Stroke	35	11.6

Table 03 shows the different complications and their prevalence percentage among the patients suffering from Diabetes Mellitus Type II patients

Table 04: frequencies and percentages for glyceemic control

GLYCEMIC CONTROL	FREQUENCY	PERCENTAGES
Poor	35	16.66%
Good	175	83.33%

DISCUSSION:

Diabetes is the global threat and in the United states the crude prevalence is diagnosed diabetes went upto 120% between 1980 to 2010 and the number will further increase upto 2025.and the cost on Diabetes is very substantial incurred upon the individuals and the society and family . the estimated cost of Diabetes augmented from \$ 98 billion in 1997 to \$ 201 billion in 2010. It is matter of the fact that DM is incurable disease but it can better be managed and if the proper care is exercised it will have no negative impact on the quality of life and good glyceemic control will enhance the Quality of life .Guidelines aimed to prevent the Diabetes Mellitus, subside the complications and to improve the quality of life are available for both healthcare providers and the patient .

The genetic as well as external environmental factors are responsible for the developing Type I diabetes but no any exact relationship between two factors is observed. Type I diabetes is caused by immunological component and related to organ specific auto immune disease. ICAs (Islet Cell Antibodies) are present more than 70%, if the patient is newly diagnosed with type I. family study shows that occurrence of ICAs is transfer with very slow onset of 03 years whereas it is believed that type I diabetes has very rapid onset. It is very difficult to identify the people who will diagnosed with diabetes in near future but it is estimated that diabetes is caused by sudden stress or any reason after dysfunction of beta cells, which reduces the working capacity up to 5-10%. Some research was conducted on newly diagnosed type I diabetes as they were treated with immune suppressant therapies including cyclosporine, azathioprine, prednisolone,

antithymocyte and globulin. These immune suppressant drugs show positive response to wards type I patients and that patient got improved day by day and they do not need any insulin for managing the elevated glyceemic level whereas these drugs can cause different disorder and become risk factor whenever used continuously as they can cause toxicity in the children. For the last two decades the emphasis of the community pharmacies has turned very smoothly from the product centered approach to the patient centered activities .This resulted due to the increasing awareness that not only the well quality of product is sufficient alone but the pharmacotherapy is also very vital in the effectiveness and the safety .(14-15)These kind of the topics like the medication surveillance and patient education on compliance has found alot value in routine practice in tertiary care hospitals of KPK(16).As the result of this shift and the impact of Diabetes Mellitus on general Health of the masses created more curiosity in the interventions involving the pharmacist in the Diabetes care has substantially enhanced . It is the best way to control your diabetes in the optimal ranges and it is essential for the healthy life, according to modern research in diabetes it is calculated physical activity consume extra calories in our body and keep the diabetes within acceptable range.

CONCLUSION:

The number of patients who had poor Glyceemic control were suffering from the Diabetes Mellitus and its' triggered complications.

Recommendations:

The Quality of life of the diabetic patients can be

improved by incorporating the analysis of the prescription costs in the pharmacy curriculum and pharmacist should be engaged to consult with the doctors to provide him the knowledge about the updated and complete info about bioequivalence, quality and cost of the Pharmaceuticals preparations.

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