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STUDY OF DIABETIC PROFILE OF DIABETIC PATIENTS AT GOVERNMENT MEDICAL COLLEGE BANDA

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ABSTRACT World over, Diabetes is the most prevalent non-communicable chronic disease, responsible for mortality in a big way. Developing countries, due to transition of lifestyle of population amid lower socioeconomic and medical care development, are predisposed to heavy burden of Diabetes. It is the diabetic long term complications that require mechanisms for early detection and management as key to the care. The state of contemporary care of diabetes in local community may be appraised through study of clinical profiles of diabetic patients, who happen to be hospitalized on account of inadequate control/complication of the disease. The findings point to scope for improvement in current care.

INTRODUCTION

Diabetes is commonest of chronic diseases affecting quarter of a billion people across the globe. [II] Wide range of micro and macro vascular complications, e.g. retinopathy, neuropathy, nephropathy and cardiovascular disease associate with diabetes. Control of hyperglycaemia through provision of sustained medical care and supporting the patients through education toward essential self care are valued means to minimizing diabetes complications. [III] Next to infections, ill health resultant of diabetes is becoming important cause for hospitalization in these patients. The quality of available care at given location may be appraised through studying clinical profiles of diabetes patients needing to be hospitalized for various eventualities.

Patients and method

The study subjects were 41 adult patients both male and females hospitalized in medical wards of GAMC (Government Allopathic Medical College) in Banda City through period of July 2020 to December 2020 carrying the primary diagnosis as uncontrolled diabetes. The written consent for participation was obtained from patients, for use of their medical information in research with assured anonymity. Along with the medical history, socio-demographic particulars of these patients were also elaborated. Their case records were scrutinized, to note details of clinical and laboratory investigation findings as well as prescribed treatment. Duration of diabetes, as period since first diagnosis of diabetes to the present instance of hospitalization was defined.

Self management profile among the patients was assessed by enquiring about adherence to prescribed medications; compliance with corrective lifestyle advice on diet, physical exercise; and whether patient practices self monitoring of blood glucose. Missing of at least one dose of anti-diabetic medication, recalled in past 7 days, was the parameter of medication nonadherence. Interruption of treatment for longer than a month was defined as treatment default.

Quality of medical care over preceeding one year was assessed by specifically enquiring about frequency of medical checkups; blood glucose and glycosylated haemoglobin determinations, blood pressure and checkups of lipid profile. Any checkups of eye and instances of hospitalization within year were also asked about.

OBSERVATIONS

Table I: Clinical and Socio-demographic Profile of Hospitalized Diabetic (all type 2) patients. n=41

Profile	Median/Number of cases	Range/%
Age	49	19 -72 years
Sex		
Male	21	51 %
Female	20	48%
Economic status		
Lower middle class	28	68%
Upper middle class	9	21%
Affluent	4	9%
Diabetes duration		
Under 1 year	13	31%
More than 1 year	28	68%
Presence of microvascular complications		
Retinopathy	14	34%
Nephropathy	6	14%
Foot infection	1	2%
Comorbidity		
Hypertension	25	60%
Other	6	14%
Anti diabetic treatment		
Oral antidiabetics	29	70%
Oral AD plus Insulin	18	43%
Insulin	4	9%
Glycaemic state at admission		
Hyperglycaemic	37	90%
Hypoglycaemic	4	9%

Table II: Self Management Activity Profiles among hospitalized diabetes patients

Self management activity profile	Number of cases	%
Received medical advice on diet and physical activity	36	87
Complying with medical advice in regard to:		
Exercise	16	39
Diet	19	46
Knowing anti-diabetic drugs taken by name	25	60
Self blood glucose monitoring	6	14
Missing regular medical checkup	26	63
Treatment non-adherence	8	19
Treatment default	12	29

Table III: Profile of diabetes care before hospitalization

Profile	Number of cases	%
Frequency of medical consultations:		
Monthly	20	48
In three months	21	51
Measurement at least in three months of:		
Blood glucose	39	95
Blood pressure	30	73
Not done in past full 1 year:		
Glycosylated Hb measurement	37	90
Serum lipid profile measurement	34	82
Urine analysis	28	68
Eye examination	11	26
Instance of hospitalization in past 1 year	13	31

DISCUSSION

During the study period total 57 patients with uncontrolled diabetes were hospitalized. It was not possible to gather required information's in case of 14 cases, which were therefore excluded. On average the 41 cases included in the report were middle aged, all having type 2 diabetes. Majority were low middle class by income. It was hyperglycemic state that associated hospitalization in most instances. A high fraction of patients had received corrective instructions relating diet and physical exercise but nearly half of these were not complying with the same. Majority knew their antidiabetic medications by name. Very small fraction had indulged in self measurement of blood glucose level at home. Majority were adhering to medications but were not regular in getting medical checkups. This indicates perception of inconvenience of financial burden. A third of the patients were at least once hospitalized within a year. Predominantly blood glucose is measured and not glycosylated hemoglobin.

Only fifth of the 41 cases were referred by others and one tenth came as emergencies. The rest majority were admitted through consultations in the hospital outdoors. The emergency admission was mostly for hypoglycemia, but all others displayed poor glycaemic control at the first blood sugar check up. 14 of the total 16 patients exhibiting microvascular complications were receiving antidiabetic treatment only for less than a year. This suggests that diabetes remains undiagnosed for long in the regional population.

Most patients adhered medications but majority ignored instructions relating diet and physical activity. It may be financial constrains that most patients do not adopt self measurement of blood sugar. Better feeling on treatment, may also promote complacent ignoring of self management perspective in the less educated, predominating among economically lower class. High prevalence of hypertension, points to poor care of blood pressure disorder in diabetic patients. The commonest discovery of microvascular complication was through eye checkup. The lower rate of detection of nephropathy or foot infection may indicate inadequate care profile. Glycosylated hemoglobin checkup was dismally low, as also blood lipid analysis and even urinalyses. The care scenario is highly deficient in early ability to detection and prevention of chronic complications of diabetes.

CONCLUSIONS

Generalizability of findings of present report is limited as study is composed of 41 cases. Only cases where past medical information was available were included, and hence all were receiving medical care. Nevertheless, hyperglycemia formed the commonest encumbrance for hospitalization.

Despite access to antidiabetic treatment, such patients only had poor blood sugar control in long run. The microvascular complications as well as instances of re-hospitalization within an year have high prevalence. Medical care failed to be optimal in regard to timely screening detection and address of complications. Self management ability also needs to be built. Predominance of hospitalization from lower socioeconomic strata is alarming finding. The study like this need be based on wider scale to address issue of diabetes quality care in our society. ([III])

CONFLICT OF INTEREST STATEMENT

There is no conflict of interests among the authors.

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