Research Paper

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Burden and Point Prevalence Of Diabetes in Medical Wards at a Teaching Hospital in Western India

Medical Science

KEYWORDS : Medicine wards, Admissions, Communicable diseases, Non Communicable diseases. Indoor patient Diabetes Mellitus

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ABSTRACT

Introduction: Admissions toMedical Wards are predominantly due non-communicable disorders. This increased prevalence of non-communicable diseases is an indication of changing socio-economic and demographic patterns. The aim of this study was to analyse the point prevalence of various non-communicable diseases on a single day in the medical wards and to evaluate the burden and point prevalence of diabetes, which is an important non-communicable disorder causing significant medical burden in the medical wards.

Materialsand Methods: Case record details of patients in the medical wards on a single day at Smt. KashibaiNavaleMedical College and General Hospital were obtained. The details were analysed with reference to age, gender, and clinical diagnosis. Patients with a clinical diagnosis of diabetes were further analysed with reference to reason for admission, evidence of infection, pattern of hypoglycaemic treatment administered and characteristics of young diabetics.

Results: 129 case records of patients in medical wards on 7thFeb 2014 were analysed. Of these, 22 patients (17%) were found to have evidence of diabetes, whereas 107 patients (83%) did not have associated diabetes. The patients with diabetes were further analysed. Of the 22 patients, 10 patients (45%) patients were admitted primarily for blood sugar control, 7 patients (32%) were admitted for an underlying infection and 5 patients (23%) were admitted for a non-diabetic cause with incidental diabetes. Of the 22 patients, 17 patients (77%) were on oral hypoglycaemic agents, whereas 5 (23%) patients were on insulin therapy. 3 patients (13.6%) were below 40 years of age; all these patients were males.

Conclusions: Diabetes was an important cause of admissions of patients with non-communicable diseases in medical wards.Most admissions were for blood sugar control, while others were for control of infection. All diabetic patients below 40 years of age were males.

Introduction

The spectrum of admissions to medical wards has changed to predominantly include non-communicable diseases1,2,3,4,5. This indicates alterations in demographics and a socio-economic transition with urbanization. Diabetes is an important cause of admissions to medical wards for non-communicable diseases3,4,5, and can cause significant medical burden in the wards. This study was conducted to analyse the burden and point prevalence of diabetes among admitted patients in medical wards on a given day.The study also analysed various characteristics of these patients.

Materials and Methods

Admission data of patients in medical wards on a givenday (07/02/2014) at Smt. KashibaiNavaleMedical College and General Hospital was evaluated with reference to age, gender, clinical diagnosis and presence of diabetes. Patients with diabetes were evaluated with reference to reason for admission, and treatment protocol followed in the medical wards.

Results

129 case records of patients in medical wards were analysed with reference to clinical diagnosis and presence of diabetes. Of these 129 patients, 22 patients (17%) had diabetes, whereas 107 patients (83%) did not have diabetes (Table 1, Figure 1). Of these 22 patients with diabetes, 15 were males (68.2%) and 7 patients were females (31.8%) (Table2, Figure 2). The average age of thesepatients was 51.6 years (32-75 years).

Of the 22 patients with diabetes, 10 patients (45%), were admitted primarily for blood sugar control, 7 patients (32%) were admitted for infection control, and 5 patients (23%) were admitted for a non-diabetic cause with incidental diabetes (Table 3, Figure 3).

Of the 22 patients, 17 patients (77%) were on oral hypoglycaemic drugs whereas 5 patients (23%) were on insulin therapy (Table 4, Figure 4).

4 patients (13.6%) of the total 22 patients were less than 40 years of age and all of them were males.

Discussion

Our study analysedthe point prevalence and burden of diabetes in medical wards in our hospital on a given day. Our study found that in our hospital, of the 129 patients analysed, 22 patients (17%) had diabetes. Inpatient diabetes point prevalence and burden has been found by different studies to vary from 24.7% in

Melbourne 6 to 42.5% in Barbados 7. Other studies have also noted increased burden ofinpatient diabetes3,4,5. This increased prevalence of diabetes among patients in medical wards underscores the importance of primary and secondary prevention in reducing the medical burden in the wards.

Our study found that of the patients with diabetes, 45% patients were admitted for blood sugar control, whereas 32% were admitted for control of infection; 23% patients were admitted for a non-diabetic cause with incidental diabetes. Our study noted that 77% of the patients with diabetes were on oral hypoglycaemic agents, whereas 23% patients were on insulin therapy.Good glucose management remains important in wards 8. The importance of good blood sugar control to minimise burden of diabetes admissions in the medical wards needs to be emphasised.

Our study noted that all the diabetic patients below 40 years of age were males. This requires further evaluation with a larger sample size.

Conclusions

1. Diabetes was an important cause for admission to medical wards.
2. Most admissions were for blood sugar control, whereas others were for infection control.
3. All diabetic patients below 40 years of age were males; this finding needs further evaluation with a larger sample size.

Table 1: Medicine Ward Patients (129 patients)

WITH DIABETES	22	17%
WITHOUT DIABETES	107	83%

Table 2: Gender Distribution of patients with diabetes (22 patients)

MALE	15	68.2%
FEMALE	7	31.8%

Table 3: Reasons for admission in patients with diabetes (22 patients)

BLOOD SUGAR CONTROL	10	45%
INFECTION CONTROL	7	32%
OTHER DISEASES	5	23%

Table 4: Treatment Format in diabetic patients (22 patients)

ORAL HYPOGLYCEMIC DRUGS	17	77%
INSULIN	5	23%

Figure 1: MEDICINE WARD PATIENTS (129)

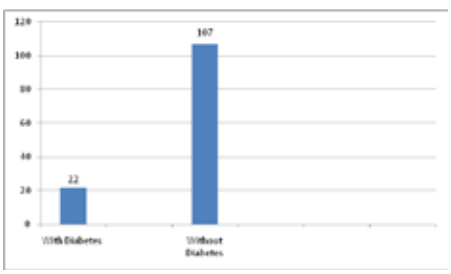

Figure 2: GENDER DISTRIBUTION OF INDOOR PATIENTS WITH DIABETES (22 PATIENTS)

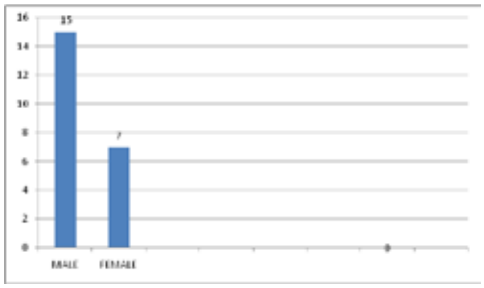

Figure 3: REASONS FOR WARD ADMISSION IN PATIENTS WITH DIABETES (22 PATIENTS)

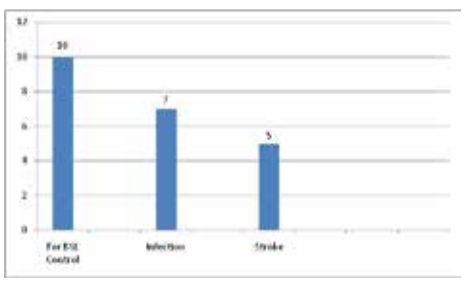

Figure 4: TREATMENT FORMAT IN DIABETIC PATIENTS (22 PATIENTS)

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