



Knowledge and Practices Regarding Foot Care Amongst Patients of Diabetes Mellitus Attending Government Hospitals of Jamnagar District.

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ABSTRACT

Of all the complications of diabetes, those that occur in the foot are considered the most preventable. People with poor knowledge and practice regarding diabetic foot care are known to have a higher incidence of foot ulcers. Aim is to assess the knowledge of foot-care measures and practices adopted by diabetic patients for foot-care. Total 400 patients were included in study. Only 78.5% patients had awareness regarding importance of inspection and washing of feet daily, 95.5% were aware regarding not walking barefoot, 51% regarding clipping of nails with care and avoid trauma and 54.8% regarding consultation with health care provider. Regarding practice, 65% inspect feet daily, 80.2% not go bare foot out-side, 31.5% clip toe nails with care and 26.75% consult health care when injured.

KEYWORDS : Diabetes Mellitus, foot care, knowledge.

Introduction

Diabetes mellitus (DM) is a major non-communicable disease that is becoming more prevalent, affecting more than 171 million people worldwide. The number of people affected by DM is expected to rise to 366 million by 2030 (1). This rise in prevalence of DM is likely to bring a concomitant increase in its complications among diabetic patients. One important complication of DM are the foot problems; these complications constitute an increasing public health problem and are a leading cause of hospital admission, amputation of lower limb, pain and mortality in diabetic patients. In addition to causing pain and morbidity, foot lesions in diabetic patients also have substantial economic consequences, beside the direct costs of foot complications, there are also indirect costs relating to loss of productivity, individual patients' and family costs and loss of health related quality of life (2).

The incidence of foot ulcers among people with diabetes ranges from 8% to 17%. Of all the complications of diabetes, those that occur in the foot are considered the most preventable. Poor knowledge of foot care and poor foot care practices were identified as important risk factors for foot problems in diabetes (3).

The practice of diabetic foot care including daily foot examination and use of appropriate footwear is considered important in its early detection and prevention of complications. People with poor knowledge and practice regarding diabetic foot care are known to have a higher incidence of diabetic foot ulcers (4). Present study is an attempt to find out the knowledge of the patients regarding foot care and practices adopted by them to prevent further complication.

Aims and objectives:

To assess the knowledge relating to foot care and to find out the practices adopted by diabetic patients for management this complication. To find out association between awareness regarding foot care with various socio-demographic factors.

Material and Methods:

It was a cross sectional study. Total 400 diabetes mellitus patients who attend the OPD at the tertiary care hospital, and patients who attend OPD at sub-district hospital and CHCs of the Jamnagar district were included in study. The study period was one year, from January 2012 to December 2012. Data collection was done through oral questionnaire method using a pre-tested, semi-structured type of proforma. The data entry and analysis were done using Microsoft Office Excel 2013. Appropriate statistical test were employed to analyse the collected data.

Result:

A total of 400 patients participated in the study and most of the patients were from the age group of 40-69. Out of 400, 205 (51.2%) were male and 195 (48.8%) were female; 91% patients were married; 81.7% were Hindu; 62.2% patients were from rural and 37.8% were from urban area; 71.8% patients were illiterate or education upto primary; maximum i.e. 40.3% (161) belonged to socio economic class IV, followed by 22.5% (90) from class III, 17% (68) from class V, 13% (52) from class II and 7.2% (29) from class I. the duration of diabetes were ranged from 1 year to 26+ years.

Awareness regarding various component of foot care range from 95.5% to 30%. Out of total 400 patients, only 78.5% (314) patients had awareness regarding importance of inspection and washing of feet daily, 95.5% (382) were aware regarding not walking barefoot, 51% (204) regarding clipping of nails with care and avoid trauma and 54.8% (219) regarding prompt consultation with health care provider. The observation further indicate the need for devoting adequate time to counsel patients by treating doctor (Table 1).

Out of total 400 patient studied, only 65% patient inspect their feet daily, 80.2% did not go bare foot out-side, 31.5% clip their toe nails with care and 26.75% consult with health care when injured (Table 2). So the gap between knowledge and practice was prevalent.

Awareness regarding foot examination was better in urban than rural, and the difference was statistically highly significant [$\chi^2=3.443, df=1, p=0.064$]. Similarly, awareness was high in literate than illiterate and among upper socio-economic class than lower socio-economic class. The association between better literacy [$\chi^2=6.935, df=1, p=0.008$] and upper socio-economic class [$\chi^2=50.073, df=2, p=0.0001$] with better awareness regarding regular eye check-up were found to be statistically significant. It seen that male (34.14%) patients were more aware than female (25.64%) patients regarding foot examination. However the difference was not statistically significant [$\chi^2=25.778, df=1, p=0.0001$]. Awareness in patients with higher duration of disease were more than in patients with shorter duration of disease but result was not statistically significant [$\chi^2=2.286, df=1, p=0.131$] (table 3).

Discussion

The awareness regarding foot care measures in diabetes patients in this study was poor. The finding shows that only 78.5% (314) patients had awareness regarding importance of inspection and washing of feet daily, 95.5% (382) were aware regarding not walking barefoot, 51% (204) regarding clipping of nails with care and avoid trauma and 54.8% (219) regarding prompt consultation with health care provider. Rabi et al in their study reported that 25.5% patients knew to wash their feet daily and dry in between the toes thoroughly, 22.6%

knew not to go outdoors barefooted, 19.7% checked their feet daily, 5.8% consciously made an effort to avoid injuries to their feet and 2.9% clipped their toenails with care (5). Majra and Acharya in their study showed that knowledge of the respondent regarding foot care was low, only 17% of respondents were aware of these (6). Comparatively patients of our study were better aware.

The actual practices regarding foot care measures amongst diabetic patients were very poor. Only 65% patient inspect their feet daily, 80.2% did not go bare foot out-side, 31.5% clip their toe nails with care and 26.75% consult with health care when injured. Majra and Acharya in their study found knowledge of the respondent regarding foot care was low, only 17% of respondents were aware of these and practice was seen only in 14% (6). Shah et al in their study reported that only 56% of the patients of diabetes check their foot regularly (7).

Conclusion

From the observation of the present study it is concluded that the awareness regarding foot care measures is very poor. The observations of the study indicate careless attitude of diabetic patients towards their health in general and prevention of complication of diabetes in particular. This is mostly because of lack of education of patients by their health care providers or lack of interest of patient regarding foot care measures.

Table 1 Distribution of study subjects according to awareness regarding foot care

Foot care*	No. (n=400)	%
Inspect and wash feet daily	314	78.5
Not walk barefoot inside and outside the house	382	95.5
Clip toenails with care and avoid trauma	204	51
Prompt consultation with health care provider	219	54.8
Foot examination by physician	120	30

*multiple responses

Table 2 Distribution of study subjects according to practice regarding foot care

Foot care practice*	No. (n=400)	%
Inspect feet daily	260	65
wearing shoes when outdoors	325	81.2
Clip toenails with care and avoid trauma	126	31.5
Prompt consultation with health care provider	107	26.75
Foot examination by physician	70	17.5

*multiple responses

Table 3 Association between awareness regarding foot examination and various demographic factors

Demographic factor	Awareness regarding foot examination		Chi value	P value
	Aware	Not aware		
Sex Male Female	70 (34.14%) 50 (25.64%)	135 (65.86%) 145 (74.36%)	3.443	0.064
Locality Urban Rural	57 (37.74%) 63 (25.30%)	94 (62.26%) 186 (74.70%)	6.935	0.008
Education Illiterate Up to primary More than primary	35 (21.21%) 22 (18.03%) 63 (55.75%)	130 (78.79%) 100 (81.97%) 50 (44.25%)	50.073	0.0001
Socioeconomic class High class (I & II) Lower class (III,IV,V)	43 (53.08%) 77 (24.13%)	38 (46.92%) 242 (75.87%)	25.778	0.0001
Duration of diabetes ≤ 5 years >5 years	38 (25.50%) 82 (32.66%)	111 (74.50%) 169 (67.34%)	2.286	0.131

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