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RESEARCH ARTICLE

Improvement of Patient Compliance through Patient Counselling in Patients with Diabetic Foot Ulcer

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ABSTRACT:

Objectives: This project was aimed at educating health care workers (HCWs) in a tertiary health care clinic to increase diabetic foot screening practices. **Methods:** A total of 120 patients enrolled in the study from general medicine department in tertiary care hospital. The documented data were evaluated for use of improvement of patient counselling for diabetic foot ulcer patients. **Results:** Improvement of patient counselling, an intensified prevention strategy including patient education, foot care and footwear is cost-effective if the risk for foot ulcers and lower extremity amputations canbe reduced by 25%. This is valid for all patients with diabetes except those with no specific risk factors.A total of 120 diabetic foot ulcer patients were included in the study. All those who were included in the study were from <40 to 70>years. In the study out of 120 patents 2.25% of patients were in the age of less than 40years, 11.6% of patients were in the group of 41 – 50years, 21.66% of patients were age group of 51–60years, 34.16% of patients were in the age group of 61 – 70%years and 30% of patients were in the age group of more than 70 years. Totally120 patients were studied in this study. Patient counselling is given to the patients under the age groups of 30–70. **Conclusion:** Overall the study results conclude that, the findings showed a significant improvement in the number of diabetic patients screened. By giving the patient counseling to foot ulcer patients, it proved to be motivational and can be used in the planning of the next cycle.

KEYWORDS: Foot ulcer, Patient counseling, Diabetes, Patient compliance.

INTRODUCTION:

Diabetic foot ulcer is a major complication of diabetes mellitus, and probably the major component of the diabetic foot[1,2]. It occurs in 15% of people with diabetes, and precedes 84% of all diabetes–related lower–leg amputations. Treatment of diabetic foot ulcers should include: blood sugar control, removing dead tissue from the wound, dreesing, and removing pressure from the wound through techniques such as contact casting. Surgery in some cases may improve outcomes [3,4,5]. Hyperbaric oxygen therapy may also help but is expensive.

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A key feature of wound healing is stepwise repair of lost extracellular matrix (ECM) that forms the largest component of the dermal skin layer[6,7]. But in some cases, certain disorders or physiological insult disturbs the wound healing process. Diabetes mellitus is one such metabolic disorder that impedes the normal steps of the wound healing process. Improvement of patient counseling is an important part of diabetic foot care as it prevents significant morbidity, loss of function and mortality from diabetic foot complications. However, foot screening is often neglected[8,9].

MATERIALS AND METHODS:

A prospective observational study of 6 months section was carried out. This study site was conducted in the general medicine department of hospital. A total 120 prescription was collected. All the inpatient of either gender of age above 18 years for undergoing treatment in the hospital will be taken for the study. Inclusion criteria, Patients with past medical and medication

histories also included. Exclusion Criteria, Patients those who are admitted in surgery ward and intensive care department, Patients with known surgical histories, Known and suspected cases of allergies, Pregnant womens. During data collection patients were informed about the study using patients information format. A regular ward round into study department was carried out. The medical charts of patients were screened for appropriateness in all possible ways. Data analysis, Foot ulcer cases were calculated. Data analysis was done with the help of computer using by graph pad prism pad 6 and Microsoft excel. Using this software range, frequency, percentage, mean, standard deviation, p-values were calculated. A pvalues less than 0.05 is taken to denote significant relationship.

RESULTS:

Table 1 Gender wise Distribution

Gender	No.of patients (n=120)	Percentage of the patients
Male	60	50%
Female	60	50%

Table 2 Age wise distribution

Age	FEMALE		MALE	
	No.of patients n=60	Percentage %	No.of patients n=60	Percentage %
30 -40	04	6.66	02	3.33
41-50	08	13.33	10	16.66
51-60	19	31.66	14	23.33
61-70	24	40	24	40
>70	05	8.33	10	16.66
Total	60	100	60	100

Table 3 Social History of Diabetic Foot Ulcer

Social history	No. of patents n= 120	Percentage %
Alcohol	22	18.33
Smoker	13	10.83
Alcohol + smoker	38	31.66
No history	47	39.16

Table 4 Diabetes with Co-Morbidities

Co-Morbidities	Male		Female	
	No.of patients n=60	Percentage %	No.of patients n=60	Per centage %
Renal	39	65	31	51.66
Tuberculosis	12	20	12	20
Bronchial asthma	9	15	17	28.33
Total	60	100	60	100

Table 5 Past Medical and Medication History of Patients in Diabetic Foot Ulcer

Complication	No. of patients	Percentage
Previous diabetic foot ulcer	29	24.16
Cardiovascular	15	12.5
Opthalmic	14	11.66
Uncontrolled blood sugar	38	31.66
Chronic kidney disease	16	13.33
Two are more of this complications	8	6.66

Table 6 Before Patient Counseling for Diabetic Foot Ulcer

Gender	No of patients n=120	Mean ± stdev.s	P value
Male	60	8.9 ± 1.42	0.5003
Female	60	8.7 ± 1.74	0.375

Table 7 After Patient Counseling for Diabetic Foot Ulcer

GENDER	No of patients n=120	Mean ± stdev.s	P value
MALE	60	6.97 ± 2.1	0.0001
FEMALE	60	6.42 ± 2.9	0.0001

Table 8 Comparison of P Value Before And After Patient Councelling

GENDER	NO.OF PATIENTS N=120	MEAN ± Stde.v	P VALUE
MALE	60	8.9 ± 1.42	* 0.0375
FEMALE	60	6.97 ± 2.1	0.0001

RESULTS:

A total of 120 diabetic foot ulcer patients were included in the study. All those who were included in the study were from <30 to 70> years. In the study out of 120 patients 2.52% of patients were in the age of less than 30years, 11.6% of patients were in the group of 41-50years, 21.66% of patients were age group of 51-60 years, 34.16% of patients were in the age group of 61-70years and 30% of patients were in the age group of more than 70years. Based on the gender, patients were divided into two groups and given patient counseling. Total 60 patients in each group. Each group has a more patient ratio between the age groups of 51-60 and 61-70. Out of 120 patients, 22(18.33%) patients with them the history of alcoholic, 13(10.83%) patients with smoking habits, and 38(31.66%) patients have alcoholic and smoking histories and 47(39.16%) patients are with no histories of alcohol, smoking and others. attention to diabetic foot ulcer with co-morbidities, among in 120 patients 70 (64.83%) patients with diabetes mellitus, 24(20%) patients with thyroidism,26 (21.66%) patients with bronchial asthma. Out of 120 patients, 46(38.33%) patients come across with past medical history and past medication history.41(34.16%) patients come across with past medical and medication history on initial day.Out of 120 patients while patient counseling, leaflets also distributed, and taken the feedback also. According to the gender distribution, before and after patient counseling, mean median, standard deviation is calculated. A p value of less than 0.0001 considered significant throughout they are compared groups by t test, p value variants at 95% confidence interval. Out of 120 patients, in each group 60 patients were divided, depends on gender.

CONCLUSION:

Awareness of physicians about foot problems in diabetic foot ulcer patients, clinical examination and paraclinical assessment, regular foot examination, patients

education, simple hygienic practices and provision of appropriate footwear combined with prompt treatment of minor injury decrease ulcer occurrence by 50%. Overall the study results conclude that, number of patients with DFU is increasing. DFU is most likely to develop in middle – aged diabetic patients with a long duration of DM and poor blood sugar control who have other co – morbidities of DM. male patients are at more risk. Recurrence of DFU is a major point of concern which underscores the importance of patient education to prevent secondary ulcers. As a result, educating medical and nursing personnel, applying screening and prevention guidelines, and allocating more resources are of great importance regarding treatment of DFU patients. Patient counseling leaflets also should be given to the patients for better knowledge improvement.

ABBREVIATIONS:

DFU- Diabetic Foot Ulcer

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