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Research Article

A STUDY OF RISK FACTORS OF DIABETIC FOOT ULCERS¹Dr. Sunnaina Tahir, ²Dr. Maryam Tariq, ³Dr. Kainat¹Bahria University Medical and Dental College²Rawalpindi Medical University; Rawalpindi³Foundation University, Islamabad**Abstract:****Objective:** To decide the hazard factors related with improvement of diabetic foot ulcers**Study Design:** Descriptive/cross-sectional**Place and Duration of Study:** This investigation was directed at the Department of Internal Medicine, Services Hospital, Lahore from first January 2017 to 31st July 2017.**Materials and Methods:** A hundred and fifty diabetics were matured between 20- 75 years of intense OPD / crisis with diabetic foot ulcers. The investigation prohibited patients with congestive heart deception, incessant kidney deception and endless liver disease. The history of diabetes and its administration has been taken a point - by - point general physical examination was undertaken in each situation along with a touch examination and an ABI test using Doppler ultrasound. Blood testing was sent to HbA1c for control of glycemics. Ulcer flotsam and jetsam have been sent for culture and emotion.**Results:** There were 90 men and 60 women. Fringe neuropathy was available in 53.3% patients, 64% had missing or reduced fringe beats, 46.7% had poor glycemetic control. Up to 90 percent of patients experienced basic contamination. In 40 percent of cases, footwear injury was available. Thirty (20%) patients needed long - term removal while rest were moderately supervised.**Conclusion:** Prolonged diabetes, nearness of basic contamination, fringe vascular sickness and fringe neuropathy are the real hazard factors in charge of improvement of diabetic foot ulcer. There is a critical need to instruct diabetic with respect to strict glycemetic control and fastidious foot care.**Key words:** Diabetes mellitus, Diabetic foot ulcer, Amputation**Corresponding author:****Dr. Sunnaina Tahir,**

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INTRODUCTION:

Diabetes mellitus (DM) is a perpetual metabolic disease which can prompt different complexities in the long run.^{1,2} Diabetic foot ulcer is one of the basic difficulties related with long running inadequately controlled DM.³ It is related with extremely impeded wellbeing related personal satisfaction (HRQOL) in both physical and emotional wellness domains.⁴ An ongoing meta-examination by Zhang *et al*⁵ announced a worldwide commonness of 6.3% for diabetic foot ulcer. This extent is considerably higher in Pakistan. Truth be told, an ongoing neighborhood think about by Khan *et al*⁶ assessed a general pervasiveness of 13.9%.

Diabetic foot ulcer displays a noteworthy general wellbeing challenge.⁷ WHO has positioned Pakistan seventh on diabetes predominance list.⁸ Due to absence of mindfulness with respect to diabetes self-administration systems, individuals are at expanded danger of creating different difficulties. Diabetic foot is especially testing as its administration as often as possible includes removal hence constraining the appendage usefulness.

Once the gangrene sets in, there is no suitable option other than to cut off the limb.⁹ It has been evaluated that diabetic foot is in charge of upto 40,000 removals yearly in Pakistan.¹⁰

There are different hazard factors related with an expanded danger of creating diabetic foot ulcers. These incorporate diabetes present for over 10 years, male sex, nearness of related microvascular confusions, fringe neuropathy, fringe vascular infection and nearby bone deformation or trauma.¹¹ It is vital to have the capacity to perceive these hazard factors from the get-go in the malady in order to point of confinement and defer the entanglements. An ongoing nearby investigation by Jan *et al*¹² revealed poor glycemic control (HbA1c >8%), fringe neuropathy and fringe vascular infection in 65.3%, 40% and 53.3% of the patients individually.

Unplanned or footwear injury was additionally present as a hazard factor in upto 44% of the patient. These chance elements can be controlled by legitimate wellbeing training of the patients with respect to the sickness. Furthermore, there is a desperate need to teach the diabetics with respect to foot care. Actually an ongoing overview by Ali *et al*¹³ detailed that just 36.7% of specialists told their patients with respect to diabetic foot care. A thorough methodology at essential medicinal services level is expected to teach the general population. Hence, we chose to lead this examination with the vital point of explaining the hazard factors related with advancement of diabetic foot ulcers.

MATERIALS AND METHODS:

This cross - sectional investigation was completed at the Department of Internal Medicine, Services Hospital, Lahore from 1 January 2017 to 31 July 2017. A hundred and fifty diabetic patients have been included. Diabetes matured between 20-75 years of careful OPD / crisis with diabetic foot ulcers were therefore enrolled in the examination. No probability sequential review strategy was used. The history of diabetes length and administration has been taken. Blood testing was sent to HbA1c for control of glycemics. Ulcer garbage has been sent for culture and emotion. The information was entered and the SPSS-20 broke down.

RESULTS:

Of 150 patients, 90 (60%) were boys and 60 (40%) were women. Right foot was only associated with 96 (64 percent) patients, left foot only involved 48 (32 percent) patients, and the two feet only involved 6 (4 percent) patients. Figure 1). The average patient age was $55,35 \pm 7,12$ years. The average length of diabetes mellitus was $12,3 \pm 3,2$ years, up to 96 percent of patients with type II diabetes. The average HbA1c was $9.1 \pm 2,9$ percent (Table 2). No treatment was received by half of patients while 40 percent were on oral diabetic enemies and 10 percent were on insulin.

Table No.1: Demographic data of the patients

Variable	No.	%
Gender		
Male	90	60.0
Female	60	40.0
Involvement of foot		
Right foot	96	64.0
Left foot	48	32.0
Both feet	6	4.0

Table No.2: Baseline attributes of the patients

Variable	Mean±SD
Age (years)	55.35±7.12
Duration of diabetes (years)	12.3 ± 3.2
HbA1c	9.1±2.9

Fringe neuropathy was available in 53.3% patients, 64% had missing or reduced fringe beats, 46.7% had poor glycemic control. In up to 90 percent of patients, the most commonly disconnected creature was staphylococcus aureus. Osteomyelitis was seen in 43.3 percent of patients. In 40 percent of cases, Footwear injury was available (Table 3). Thirty (20%) of patients needed long - term removal while rest were minimally supervised.

Table No.3: Risk factors for diabetic foot ulcer

Risk factor	No.	%
Poor glycemic control	70	46.7
Peripheral neuropathy	80	53.3
Peripheral vascular disease	97	64.7
Prolong diabetes (>5 years)	140	93.3
Accidental/Footwear trauma	60	40.0
Underlying infection on C/S	135	90.0
Osteomyelitis	65	43.3

DISCUSSION:

On the careful floor the diabetic foot ulcer is routinely observed. Elderly patients are typically injured and the related horror among them is high. What disturbs the diabetic foot is how its administration may require the removal of the affected appendage. The amount of diabetics is on the rise and is a real general concern for wellbeing. Concerning foot care in diabetics is extremely critical.

We conducted this investigation to illustrate the risk factors related to the advancement of diabetic foot ulcers. Our study distinguished late diabetes i.e. Diabetes > 5 years of age and the most commonly won risk factors present in up to 93,3 percent and 90 percent of patients separately. This was reliable with the Ahmad et al.7 discoveries we announced the average age of 55,35±7,12 years. The normal infection period was 12,3±3,2 years. This was in accordance with Ahmad et al11 and Jan et al12, who revealed an average term of 11,4 years and 11 years individually. A longer length is related to increased risk of diabetic foot ulcers. In our investigation, fringe vascular disease and fringe neuropathy were available in 64 percent and 53.3 percent in individual patients. This was in accordance with the findings of Ahmad et al11, who announced the pervasiveness of 62.8% and 51% separately. Our investigation identified footwear injury as a hazard for up to 40

percent of patients. This was predictable with the aftereffects of Jan et al12 that 44 percent of patients reported footwear injury evidence. The removal rate is very high after diabetic foot ulcers. Ahmad et al11 reported a 20,9% reduction rate in diabetic foot ulcer patients. This was consistent with our results as we observed a 20 percent reduction rate. However, Rashid et al14 announced a much higher removal rate of an amazing 35.8 percent. There is a need to start a national well - being training crusade indicating the patient's diabetes specifics and how to guarantee strict glycemic control. At this point, we can have any desire to address this huge general wellbeing challenge.

CONCLUSION:

Delayed diabetes, nearness of hidden contamination, fringe vascular infection and fringe neuropathy are the real hazard factors in charge of advancement of diabetic foot ulcer. There is a desperate need to instruct diabetic in regards to strict glycemic control and fastidious foot care.

Conflict of interest: The investigation has no irreconcilable situation to announce by any creator.

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