VOLUME - 11	I, ISSUE - C	5, MAY -	2022 •	PRINT ISSN No.	2277 -	8160 •	DOI :	10.36106/gjra
-------------	--------------	----------	--------	----------------	--------	--------	-------	---------------

Original Research Paper

Medicine

DIABETIC FOOT ULCER AND ASSOCIATED RISK FACTORS IN DIABETIC PATIENTS ATTENDING KVG MEDICAL COLLEGE SULLIA

Dr Suresh Putturaya	Department of General Medicine, KVGMCH, Sullia				
Dr C Ramachandra Bhat	Department of General Medicine, KVGMCH, Sullia				
Dr Keerthi Raj T K	Department of General Medicine, KVGMCH, Sullia				
Dr Ilyas Abdul Azez	Department of General Medicine, KVGMCH, Sullia				
Dr Rachitha S	Department of General Medicine, KVGMCH, Sullia				

KEYWORDS:

A diabetic foot ulcer is a severe disease affecting people globally, and its effects are devastating, including a wound below the ankle among diabetic patients. The condition is the most adverse complication of diabetes Mellitus, whose morbidity and mortality are rising globally (Jalilian 1835). For instance, in 2017, the International Diabetes Federation (IDF) reported that around 425 million people globally live with the disease, which shows signs of rising to 628 million by 2045 (Abdissa et al., 1). When the disease advances to more severe stages, the medical personnel performs amputations. The IDF reports that every 30 seconds, a person somewhere in the world loses their limb due to the disease.

The disease's high infection rate is a chief contributor to lowquality life, considering its dire effects. The global prevalence of diabetic foot ulcers ranges from 3% to 13%, and mortality rates of the patients after getting the disease amount to 40% (Abdissa et al., 2). The disease poses a significant socioeconomic risk among diabetes patients and their family members (Akila et al., 1). For instance, the victims have a 25% lifetime risk of contracting the ulcers, and those with the disease have increased mortality. Additionally, the condition forces patients and their loved ones to incur high medical expenditures and a longer duration of the disability. Tolossa et al. (1) asserts that the disease causes public health burden, especially among individuals aged 30-45 years in low-income societies. Therefore, the research will provide essential information to prevent the condition from spreading and inform diabetic patients on how to take care of themselves.

OBJECTIVES

The scholar intends to determine the diabetic foot ulcer prevalence and its associated risk factors among diabetic patients at KVG Medical College. Ascertain the correlation between the prevalence rates and the risk factor will help medical practitioners offer the appropriate advice to diabetic victims. For instance, the disease's increasing mortality and morbidity caused concern among all residents in the region. The disease also affects the Indian population, which calls for more consideration. According to a study by Banik et al. (1), patients with type two diabetes are more prone to contracting diabetic foot ulcers (DFU). Further, diabetes is even six times more common among people of South Asia than the other ethnicities. In Bangladesh, 9.7% of individuals over thirty-five years have diabetes, and another 22.4% are in the prediabetic phase (Banik et al., 1). Therefore, since the disease causes severe effects, the scholar intends to research the topic and ensure more diabetic patients benefit.

REVIEW OF LITERATURE

Scholars have researched the topic having different objectives, aiming to determine the causes or prevalence of

the disease. Syauta et al. (1) conducted a study seeking the correlation between risk factors and the extent of diabetic foot ulcers based on Wagner's classification. The academicians considered age, obesity, diabetic duration, hypertension, smoking, high neutrophil/lymphocyte ratio (NLR), and poor ankle-brachial index (ABI) as the risk factors which manifest among diabetes Meletus patients. The research was a cross-sectional study that involved a sample size of 40 patients. For accurate results, the scholars conducted a correlation exercise using SPSS software and considered results as significant if the p-values were less than 0.05. The study determined that NLR, ABI, duration of diabetes, and smoking had a significant correlation. However, age, obesity, and hypertension did not pose significant risk factors.

Another group of scholars aimed to determine diabetic foot ulcers prevalence among diabetic patients. Yimam et al. (1) conducted a quantitative cross-sectional study using 198 diabetic patients as the sample size. The scholars used a simple random sampling method to select respondents and offered them a questionnaire to gather information. Afterward, they used SPSS software to determine any correlation between the dependent and independent variables. The researchers then determined used a p-value of less than 0.05 to determine the significance of the condition. The study ascertained that Diabetic foot ulcer prevalence was 20.7% in the region, promoted by occupation and place of residence.

Some Academicians sought to study the pervasiveness of DFU and its contributing factors among diabetic victims in Telangana, India. The researchers carried out a crosssectional study among 200 diabetic patients whose diagnosis was as per the physician acumen's standard criteria (Chavan et al.1274). The study ascertained that majority of the diabetic patients who had the UFD were from the rural areas, illiterate, smokers, alcoholic and overweight. However, the scholars did not categorize age, literacy, residency, obesity, and disease duration were not as risk factors. The researchers found that the prevalence rate in the region was 16%.

In a study to determine the pervasiveness of DFU and its contributing factors among diabetes mellitus victims, the scholars conducted a cross-sectional study among 620 patients in Udupi, India. The academicians used Michigan Neuropathy Screening to diagnose peripheral neuropathy and ankle-brachial index for peripheral arterial disease (Vibha et al., 1). The researchers used the International Working Group on Diabetic Foot (IWGDF) classification system to analyze the results. The research ascertained that the region had a prevalence rate of 51.8%, and the risk factors included low socioeconomic status, longer duration of diabetes mellitus, and sedentary physical activity.

In a study to determine the magnitude of risk factors associated with DFU, the researchers conducted a simple random sampling among 325 diabetic patients. The researchers collected patient data and analyzed it using the SPSS software, setting the significance of correlation at a pvalue of less than 0.05(Regas et al. 1). The scholars found the region to have a prevalence rate of 15.5%. The risk factors included peripheral neuropathy, vision impairment, duration of diabetic Mellitus illness, deformity, sensory loss to vibration, foot pedal pulse, glycemic control, and foot care practice. The literature on the preexisting studies provides a basis for conducting the research effectively and getting accurate findings.

MATERIAL AND METHODS

The scholar will carry out the study in KVG Medical College Sullia, using a sample size of 50 patients diagnosed with diabetes at the institution. Many scholars, including Pavithra et al. (897), use cross-sectional studies to ascertain the pervasiveness and contributing factors of the disease. Therefore, the researcher will use the method to carry out the research. The academician will use a simple random sampling method to select respondents and offer them a questionnaire to gather information. Rajalatchumi et al. (14) argue that the procedure is more effective in a cross-sectional study, appropriate for the study. The questionnaire will have sections aiming to determine the risk factors; thus, it will list the potential risk factors, including age, obesity, diabetic duration, alcohol consumption, and foot care practices. The scholar will analyze the data using an SPSS version 23 for descriptive statistics, setting the confidence levels at less than 0.05. The academician will use Bivariate logistic and linear regressions to ascertain the association between the variables.

DISCUSSION

The scholar will detail the discussions of the study based on the research findings. For instance, the SPSS computations will determine the correlation between the risk factors and the disease, while the bivariate logistic and linear regressions will determine the diseases' prevalence.

The researchers will base all conclusions from the study solely on the results and findings. The scholar will then use the findings to recommend which practices the diabetic patients and the institution should follow to ensure the disease infection rate in the region reduces.

REFERENCES

Works Cited

- Abdissa, Daba, et al. Prevalence of Diabetic Foot Ulcer and Associated Factors Among Adult Diabetic Patients on Follow-Up Clinic at Jimma Medical Center, Southwest Ethiopia, 2019: An Institutional-Based Cross-Sectional Study. Journal Of Diabetes Research 2020 (2020).
- Akila, M., R. S. Ramesh, and M. J. Kumari. Assessment Of Diabetic Foot Risk Among Diabetic Patients in A Tertiary Care Hospital, South India.^a Journal Of Education and Health Promotion 10.14 (2021):1-6
- Banik, Palash Chandra, et al. Risk of Diabetic Foot Ulcer and Its Associated Factors Among Bangladeshi Subjects: A Multicentric Cross-Sectional Study. BMJ Open 10.2 (2020): E034058.
- Chavan, M. S., et al. Prevalence and Risk Factors of Diabetic Foot Ulcer at A Tertiary Care Hospital Among Diabetic Patients. International Journal of Advances in Medicine 5.5 (2018): 1274-1279
- Jalilian, Milad, Pegah Ahmadi Sarbarzeh, and Sajad Oubari. Factors Related to Severity of Diabetic Foot Ulcer: A Systematic Review. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy 13 (2020):1835-1843
- Pavithra, H., et al. Factors Associated with Awareness and Practice About Foot Care Among Patients Admitted with Diabetes Mellitus: A Cross-Sectional Research from A Medical College Hospital of Southern India. Nepal Journal of Epidemiology 10.3 (2020): 897-904.
- Rajalatchumi, Adhisakthi, et al. Perception of Patient Safety Culture Among Health-Care Providers in A Tertiary Care Hospital, South India. Journal Of Natural Science, Biology, And Medicine 9.1 (2018): 14-18
- Regas et al. Magnitude of Diabetic Foot Ulcer and Associated Factors Among Diabetic Patients Who Attended Diabetic Follow-Up Clinics in Gamo and Gofa Zones, Southern Ethiopia. International Journal of Diabetes and Clinical Research 8.2 (2021):1-9
- 9. Syauta, Divara, et al. Risk Factors Affecting the Degree of Diabetic Foot Ulcers

Clínica Práctica 4 (2021): 100231.
10. Tolossa, T., et al. Prevalence and Associated Factors of Foot Ulcer Among Diabetic Patients in Ethiopia: A Systematic Review and Meta-Analysis. BMC Public Health 20.1 (2020): 1-14.

According to Wagner Classification in Diabetic Foot Patients. Medicina

- Vibha, S. P. et al. Community-Based Study to Assess the Prevalence of Diabetic Foot Syndrome and Associated Risk Factors Among People with Diabetes Mellitus. BMC Endocrine Disorders 18.1 (2018): 1-9.
- Yimam, Alewiya, et al. Prevalence of Diabetic Foot Ulcer and Associated Factors Among Diabetic Patient in Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia. International Journal of Africa Nursing Sciences 14 (2021): 100285.