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Skin Care Knowledge, Attitude and Practices among Pakistani Diabetic Patients

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Abstract

Introduction:

Almost all diabetic patients eventually develop skin complications from the long-term effects of diabetes mellitus on the microcirculation and on skin collagen. The control of diabetes-induced skin manifestations is complex, made up of a number of separate treatments with education representing a single facet within this package.

Methods:

This cross-sectional descriptive survey included 1073 diabetic patients to explore skin care knowledge, attitudes and practices among Pakistanis with diabetes mellitus. Case participants were interviewed through a pre- coded questionnaire from 10th March 2009 till 20th July

2009.

Results and conclusion:

The mean ± SD age of the participants was 58 ± 8.78 years. With 67% male subjects, only 14% had awareness about skin manifestations in diabetes. The majority of the respondents did not know that people with diabetes are more vulnerable to skin disease. Forty-three percent preferred traditional healers for skin treatment while eighteen percent did not know what to do. There is urgent need to educate Pakistani diabetic patients regarding self care and skin care. Limited information, social attitudes and beliefs are the reasons for non-adherence to management guidelines.

Introduction

Diabetes affects almost all tissues in the body [1], including the skin [2-4]. Pharmacological management of diabetes can lead to dermal alterations with multiple skin reactions [2,5]. Higher incidence of bacterial and mycotic infections is reported in poor glycemic control [6,7]. The escalating prevalence of diabetes portends serious consequences for the quality of life of diabetics, their families and communities.

Patient's role establishes the health seeking behaviors and treatment adherence [8]. Successful implementation of diabetes management guidelines requires complete understanding of the lifestyle, beliefs and attitude of the patients being treated [9].

The aim of the study was to acquire an understanding of diabetic patient's knowledge, attitude and practices towards skin problems that could hinder optimal disease management.

Methods

This cross-sectional descriptive survey included 1073 diabetic patients visiting two private skin care clinics of Faisalabad, Pakistan. Study was conducted from 10th March 2009 till 20th July 2009. Inclusion criteria for recruitment were patients suffering from type 1 or type 2 diabetes, those who were diagnosed with diabetes for at least 1 year and patients with a past or present history of dermal manifestations. Exclusion criteria were diabetic patients on anti-hypertensive or anti-depressant treatment and those who were using mineral or vitamin supplements.

Ethical approval from institutional Advanced Studies and Research Board (ASRB) was secured. Following verbal informed consent, quintessential assessment of every patient included a comprehensive interview through pre-coded questionnaires. Trained investigators pre-tested the validity and reliability of the questionnaires in 45 patients. The investigators asked the questions verbally in Urdu and filled out the forms. Privacy of the patients was ensured during entire study. Participants were

informed about survey, its consequences and impacts on their health.

Results and Discussion

The mean ± SD age of the participants was 58 ± 8.78 years. Results are outlined in **Table. 1**. With 67% male subjects, only 14% had awareness about skin manifestations in diabetes. Majority of the respondents did not know that people with diabetes are more vulnerable to skin disease. Forty-three percent preferred traditional healers for skin treatment while eighteen percent did not know what to do. The primary finding of this study is a lack of knowledge about connection of diabetes mellitus with skin complications. These results are in partial agreement with other studies conducted in Pakistan [10-13].

Participants identified co-morbid diseases as additional barriers to self-care. Most diabetic patients knew about nephropathy, retinopathy and diabetic foot ulcers. Patients refused to accept diabetes mellitus as a chronic illness with associated cutaneous alterations.

Overall skin hygiene measures in diabetic patients were found to be inadequate. Participants believed that early educational interventions for diabetes related skin hygiene might result in better outcomes. Respondents said that they might be more careful about skin diseases if they were educated and positively reinforced. Diabetic patients who claimed to have knowledge about skin complications in diabetes had almost same skin care habits as those diabetics who never knew about the dermal problems in diabetes (P= 0.487).

For the majority of the patients, it was easy to take drugs as compared to skin self-examination. Past experience with a family member suffering from diabetes could result in a fatalistic attitude. Respondents who were more anxious about skin care, they wanted to absorb information and make changes around their lifestyle. The cost of diabetes management, physician remuneration, cultural beliefs and practices led to self-care or home-remedies and consultation with traditional healers. Traditional or spiritual healers are often consulted for alternative therapies due to affordable fee, family pressure and strong community opinions [14].

Hypothesis: Skin Care Knowledge, Attitude and Practices among Diabetic Patients	**Results in %**
Did your physician tell you about diabetes related complications?	
Yes	47
No	39
Don't remember	14
Is a diabetic person more prone to skin diseases?	
Yes	14
No	63
Don't know	23
In case of skin disease, what should be done?	
Consult doctor	31
Consult traditional healer	43
Self-remedy	2
Consult family elders	4
Ignore it	2
Don't know what to do	18
As a diabetic, do you know how to take care of your skin?	
Yes	23
No	77
Do you check skin daily for changes in skin color, pigmentation, texture, turgor, cuts, blisters, red spots or swelling?	
Often	15
Sometimes	39
Never	46

Conclusion

The failure to adequate skin care in patients with diabetes may be assigned to a lack of patient knowledge, physicians counselling and access or cost of health care system.

References

1. Zhou H., Kathryn CBT, Sammy WMS and Ying W. Increased serum advanced glycation end products are associated with impairment in HDL antioxidative capacity in diabetic nephropathy. Nephrol Dial Transpl. 2008; 23: 927- 933.

2. Ahmed I and Goldstein B. Diabetes mellitus. Clin Dermatol. 2006; 24: 237- 246.

3. Soldatos G, Cooper ME. Advanced glycation end products and vascular structure and function. Curr Hypertens Rep. 2006; 8: 472- 478.

4. Monnier VM, Sell DR, Dai Z, Nemet I, Collard F and Zhang J. The role of the amadori product in the complications of diabetes. Ann N Y Acad Sci. 2008; 1126: 81- 88.

5. Spravchikov N, Sizyakov G, Gartsbein M, Accili D, Tennenbaum T and Wertheimer E. Glucose effects on skin keratinocytes: implications for diabetes skin complications. Diabetes. 2001; 50: 1627- 1635.

6. Ettler K. Diabetic skin changes from the dermatological point of view. Vnitr Lek. 2006; 52: 454- 458.

7. Huijberts MS, Schaper NC and Schalkwijk CG. Advanced glycation end products and diabetic foot disease. Diabetes Metab Res Rev. 2008; 24: S19- S24.

8. Ring L, Kettis-Lindblad A, Kjellgren KI, Kindell Y, Maroti M, Serup J. Living with skin diseases and topical treatment: patients' and providers' perspectives and priorities. J Dermatolog Treat. 2007; 18: 209- 218.

9. Bradley C, Gamsu DS. For the Psychological Well-being Working Group of the WHO/IDF St Vincent Declaration Action Programme for Diabetes. Measures of psychological well-being and treatment satisfaction developed from the responses of people with tablet-treated diabetes. Diabet Med. 1994; 7: 510- 516.

10. Hawthorne K, Tomlinson S. Pakistani moslems with Type 2 diabetes mellitus: effect of sex, literacy skills, known diabetic complications and place of care on diabetic knowledge, reported self-monitoring management and glycaemic control. Diabet Med. 1999; 16: 591- 597.

11. Habib SS, Aslam M. Risk factors, knowledge and health status in diabetic patients. Saudi Med J. 2003; 24: 1219- 1224.

12. Rafique G, Shaikh F. Identifying needs and barriers to diabetes education in patients with diabetes. J Pak Med Assoc. 2006; 56: 347- 352.

13. Rafique G, Azam SI, White F. Diabetes knowledge, beliefs and practices among people with diabetes attending a university hospital in Karachi, Pakistan. East Mediterr Health J. 2006; 12: 590- 598.

14. Shaikh BT, Hatcher J. Complementary and alternative medicine in Pakistan: Prospects and Limitations. Advance Access Publications. 2005; 2: 139- 142.

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