

Dermatological Manifestations in Diabetics: Prospective Study on 160 Cases

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Abstract

Dermatological manifestations during diabetes are frequent, polymorphic, revealing and have a prognostic value. We present a prospective, mono centric study, spread over a period of 3 months, in the department of dermatology of the 5th Military Hospital of Guelmim, about 160 cases.

Keywords: Dermatological manifestations; Diabetes; Prospective study

Introduction

Diabetes is a chronic and persistent state of hyperglycemia, affecting 9% of the general population and predisposing to multiple micro-angiopathic, macro-angiopathic, metabolic and infectious complications.

Dermatological manifestations during diabetes are frequent, polymorphic, revealing and have a prognostic value. They can be subdivided into three broad categories (associated dermatosis, acute and chronic complications and side effects of antidiabetic treatments.)

Work goals

Our study aims to know the main dermatosis encountered in diabetics, to have the most objective statistics and the most real possible, to compare them with other studies, to deduce the consequences and suggestions, with the ultimate goal of better care for diabetics.

Materials and Methods

A prospective, mono-centric study, conducted over a period of 3 months, from May 1st, 2015 to July 31st, 2015, within the dermatology department of the 5th Guelmim military hospital.

Diabetics followed in diabetology and internal medicine consultations have benefited from a dermatological consultation according to a pre-established record of exploitation. Of a total of 186 files, only 160 have been validated and exploited.

Results

The average age of our patients was 54.26 years with a female predominance of 62.5%. Type II diabetes was found in 82.5% of patients with an evolution of more than 5 years in 60% of patients. 45% of diabetics had fasting blood glucose above 1.80 g/dl and 92.5% had HbA1C greater than 6%.

Associated dermatoses were: psoriasis 10%, eczema 8.75%, varicose veins 7.5%, pigment disorders 5%, vitiligo 2.5%, alopecia areata 2.5%, rosacea 2.5%, acanthosis nigricans 2, 5%, 2.5% necrotic angiodermatitis, 2.5% plantar keratosis, 1.25% urticaria, 1.25% ring granuloma, 1.25% lipid necrobiosis, 1.25% viral hepatitis C.

The acute cutaneous complications were: 61.25% mycotic infections, 5% bacterial infections. While the chronic complications were: 25% pruritus, 25% cutaneous xerosis, 10% diabetic dermopathy, 2.5% diabetic bullosa and 1.25% pseudo-sclerodermiform finger state.

While no cases of oral antidiabetic drugs or lipodystrophy at injection sites of insulin have been noted. The associated extra-skin manifestations were: obesity 71%, dyslipidemia 34%, hypertension 33%, diabetic nephropathy 10%, limb amputation 4%, ischemic heart disease 2.5%, stroke 1.25% and diabetic retinopathy 1, 25%.

Discussion

The analysis of the results shows that in the population of Moroccan diabetics

The average age (54.26 years) is close to that of the literature [1,2]. The clear predominance of women shows that women are more likely to consult and therefore follow up than men [3]. 82.50% of our patients had type II diabetes, which is consistent with the proportions usually seen in the general population. However, the mean age of diabetics was 7.5 years with extremes of 0 to 25 years, which is below the average in the literature [4].

All dermatosis frequently associated with diabetes were found in our study. Their prevalence varies according to the studies and our results are similar to those of the literature. However, some pathology, whose association with diabetes is frequently described in the literature as finger pebbles, Werner's syndrome and porphyria cutanea tarda have not been observed in our study. This can be explained by the extreme rarity of this dermatosis and the reduced volume of the size of our study. In our study vitiligo, alopecia areata and acanthosis nigricans appear to be more associated with type I diabetes which is explained by their autoimmune site of occurrence, whereas psoriasis and rosacea are more associated with type II diabetes. Which can be explained by the association between psoriasis and rosacea and

metabolic syndrome, however the results obtained do not allow us to conclude on the other dermatoses.

Cutaneous infection was by far the most common complication (66.25%) in all series of the literature [5-8]. It can be explained by diabetes-related immunodeficiency, altering both cellular and humoral immunity. The nature of the infections may differ between studies with a preponderance of mycotic infections as shown in our study.

The pruritus in diabetics is multifactorial, favored by xerosis and cutaneous infections on the one hand and by the neuropathic component related to diabetic imbalance on the other hand. The relatively high frequency of this symptom justifies the demand for fasting blood glucose in the presence of pruritus. While diabetic dermopathy and bullosis are relatively rare and are confined to chronic, advanced and poorly balanced forms.

In the end, obesity, dyslipidemias and hypertension were frequently associated with diabetes, suggesting that these cardiovascular risk factors are also considered as possible factors favoring the occurrence of dermatosis in diabetics [5,6].

Conclusion

Diabetes is chronic systemic disease, predisposing to short-term and long-term complications, usually developing at low noise and making diagnosis and management late and difficult. The dermatological manifestations during diabetes are frequent, polymorphous,

sometimes critical and especially accessible to early diagnosis, hence the importance of rigorous dermatological monitoring of diabetics in parallel with other endocrinological, cardiological, nephrological and neurological follow-ups.

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