

Vitiligo in Type 2 Diabetes Mellitus

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Abstract: *Diabetes mellitus is manifested with many skin manifestation like necrotising lipoidica diabetorum, diabetic dermopathy, acanthosis nigrans, calciphylaxis. Vitiligo occurs more in type 1 diabetes mellitus. Few recent studies have shown increased incidence type 2 diabetes mellitus. Here we report a 62 year old male patient with no family history of diabetes and history of diabetes and vitiligo for the past 2 years simultaneously. The exact pathogenesis of this vitiligo in type 2 DM is not clear and needs further consideration.*

Keywords: Diabetes mellitus, vitiligo

1. Introduction

Diabetes mellitus is a metabolic disorder characterized by elevated fasting and postprandial blood glucose levels and a variety of multisystem complications, mainly in the blood vessels, eye, kidney, nervous system, and integument. It is known to be associated with many skin diseases, and vitiligo is one of the skin manifestations. Vitiligo is an acquired, non contagious disorder, in which progressive, patchy loss of pigmentation of skin and often overlying hair, and mucous membranes, results from the loss of melanocytes from the involved areas. Vitiligo is known to occur with many autoimmune diseases, and there are many reports of its association with Type 1 diabetes mellitus unlike its association with Type 2 diabetes mellitus. Few studies show the association of vitiligo with Type 2 diabetes

2. Case Report

A 62 year male patient with no family history of diabetes and history of diabetes for the past 2 years and was on oral hypoglycaemic agents. He also had progressive patchy loss of pigmentation of the skin for the past 2 years. On examination shows hypo pigmented macules patches over the extensor aspect of the bilateral hand, dorsal aspect of bilateral foot and legs, anterior aspect of trunk ,scalp and lips.

3. Investigation shows

Hemoglobin	11 gm %
Total count	5000
Renal function test	Urea 22/creatinine 0.1
Urine routine	Sugar –nil/albumin-nil
FBS/PPBS	196/226
Hba1c	9
C peptide	normal
USG abdomen and pelvis	normal
FLP	normal
LFT	normal
ECHO	normal
ECG	normal

Patient was treated with oral hypoglycaemic drugs and tacrolimus ointment. Patient was under regular follow up.

4. Discussion

Diabetes mellitus is usually complicated by many cutaneous disorders, and it is seen in about 30% of diabetics.

Cutaneous manifestations vary in Type 1 and Type 2 diabetes. Type 2 diabetes is often associated with skin infections, and Type 1 is associated with autoimmune-related lesions. In addition, Type 2 diabetes is associated with more complications than Type 1 but the prevalence of cutaneous disorders appears to be the same. Melanocyte depletion occurs in vitiligo, but the exact cause is still not very clear. Vitiligo is commonly considered to have an autoimmune basis, and its strongest evidence is its association with many other autoimmune diseases. The presence of vitiligo in Type 1 diabetes may be due to autoimmunity affecting the skin as Type 1 diabetes is known to be a slow autoimmune disease. In a study vitiligo in type 2 DM is due to apoptosis of melanocytes because of production of oxidative stress, free radical generation, and release of various growth factors which are cytotoxic to melanocytes.

5. Conclusion

It can be said that vitiligo can coexist with Type 2 diabetes. The exact pathogenesis is not very clear and needs further consideration.

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