# Managing skin problems in diabetes

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| Venue: | Sheraton Hotel, Hong Kong |
| Speaker: | Professor Steven Lee<br>Clinical Associate Professor,<br>University of Sydney, Sydney |
| Organisers: | Hong Kong Society of Dermatology and Venereology; Hong Kong College of Physicians |

About 30% of patients with diabetes mellitus have skin problems. On the other hand, correct diagnosis of skin lesions may lead to diagnosis of unsuspected diabetes. Diabetes can cause a wide variety of skin lesions and they are not just localised to the foot.

The pathogenesis of skin infection in diabetes is impaired T cell and neutrophil function, impair sensation and vascularity due to neuropathy and vaculopathy. Trauma and obesity are also the common causes of skin infection in diabetes.

There are many skin conditions that can lead to the diagnosis of diabetes mellitus. Examples include Miescher's granuloma in the face, extensive dermatophytic infection, candidiasis, folliculitis, erysipelas and impetigo. Malignant otitis externa caused by Pseudomonas in diabetes patients has a poor prognosis if not recognised early. Pyoderma gangrenosum is also one of the alert conditions. Yellow skin and nail in diabetes is probably due to hypercarotenaemia. Vitiligo is also associated with diabetes. Onychomycosis is 2.5 times more common in diabetes. In porphyria cutanea tarda, about one fourth of patients are diabetic.

Acanthosis nigricans and multiple skin tags are not infrequently found in diabetics. The neck and axilla are the common areas involved. The onset is mostly in childhood and adolescent. In adults, it may be associated with internal malignancy. In patients with obesity and diabetes, the severity of acanthosis nigricans is correlated with the degree of insulin resistance. Unsuspected diabetes may be diagnosed in some patients presented with both conditions.

Scleroedema is a thickening of skin which may affect at least 10% of diabetics. It is related to duration of diabetes and to microangiopathy. It usually develops on the neck and upper back. Severe cases are associated with discomfort and respiratory problem.

Necrobiosis lipoidica diabeticorum occurs in about 1% of diabetics. It is usually found in the shin area and diagnosed on clinical ground. It is more common in women. The severity of the condition is not correlated with glycaemic control. The lesion may become painful and ulcerated. Early lesion is treated with topical or intralesional steroid while treatment of chronic lesion is often unsatisfactory.

Granuloma annulare is a more common necrobiotic dermatosis, its relationship with diabetes is not well established but diabetes screening should be considered in patient with extensive disease.

Diabetic dermopathy and diabetic bullae are not uncommonly seen in diabetic patients. They are thought to be as a result of microangiopathy. Diabetic dermopathy is more

common in men. Itis detected in up to 50% patients and is one of the most common skin conditions encountered in diabetics. The lesions are generally found in lower legs and may precede the onset of diabetes. Diabetic bulla is large and tense but usually self limiting. Protection from trauma and secondary infection is often helpful in disease management.

Reactive perforating collagenosis is an uncommon pruritic dermatosis particularly affecting diabetic patients with nephropathy on dialysis. It can be improve with phototherapy and retinoid.

Calciphylaxis occur in patients with diabetes and renal failure, there is usually ulcerative plaque in lower limbs and healing is usually poor.

Foot care is very important in diabetes as 60% of lower limb amputation in diabetics is due to infection. Chronic lymphoedema and recurrent cellulitis in lower limbs can be improved with oral retinoid. Trauma induced ulcer in diabetes heals slowly, therefore skin graft should be avoided. Other skin infections commonly seen in diabetics are dermatophyte infection, onychomycosis, plantar wart, intertrigo and erythrasma. Early recognition and treatment is important.

In the question and answer section, the speaker illustrated the use of oral retinoid for chronic lymphoedema in diabetics for about six months with tapering dosage, with significant improvement. The use of 1-3% acetic acid for dressing in wound infected by Pseudomonasmay be useful. Combination of phototherapy and retinoid for treatment of reactive perforating collagenosis may lead to significant improvement. In the treatment of onychomycosis, potential side effects of systemic antifungals need to be considered and nail avulsion must be exercised with caution in diabetics.

***Learning points:***

Diabetics can present with a wide range of cutaneous manifestations. Some skin conditions may signify underlying diabetes. Foot care is important as infection can lead to limb amputation in diabetics.

**Web sites of Dermatology & Venereology in Hong Kong**

**The homepage of The Hong Kong Society of Dermatology & Venereology**
***http://www.medicine.org.hk/hksdv/***

**Hong Kong Journal of Dermatology & Venereology**
(Official Publication of The Hong Kong Society of Dermatology & Venereology)
***http://www.medicine.org.hk/hksdv/bulletin.htm***

**The homepage of The Asian Dermatological Association**
***http://www.medicine.org.hk/ada/***