SHORT COMMUNICATIONS

ACROCHORDON, DIABETES AND ASSOCIATIONS

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A study of clinical profile of acrochordons was carried out in 100 patients. Their association with diabetes mellitus and other disorders was studied. Acrochordons were found to be closely associated with pseudo-acanthosis nigricans, seborrhoeic keratosis, obesity and non-insulin dependent diabetes mellitus.

Key Words : Acrochordon, Diabetes mellitus, Seborrhoeic keratosis, Pseudoacanthosis nigricans

Introduction

Acrochordon (skin tags) are benign connective tissue tumours of the dermis. The condition is very common, particularly in women at the advancing age. Clinically, they appear as soft, skin coloured or hyperpigmented, usually pedunculated lesions often occurring on the neck, and major flexures of the body.

There are studies of association of skin tags with diabetes mellitus[1,2] and colonic polyposis.[3,4] We present a study of 100 nonhospitalized patients having skin tags and its associations.

Materials and Methods

One hundreed patients attending the department of Skin, STD and Leprosy, SMS Medical Collage, Jaipur, having skin tags as the sole presenting skin lesion were included in this study.

Out of the 100 patients 36 were male and 64 were female. Age reanged from 23 to 64 years in the male and 18 to 58 years in the female patients. Each patient was carefully examined for the localization, number, size and colour of the skin tags. The height and weight of the patients were recorded and obesity was determined as 20 per cent increase above the ideal body weight. Patients were examined by a standard oral glucose tolerance test. Serum cholesterol level was also measured. Impaired GTT was determined according to the criteria suggested by the National Diabetes Data Group.

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Results

Maximum number of patients were in the age group of 31-40 years, in both the sexes. Forty four patients (16 male and 28 female) belonged to this age group. Skin tags were distributed mainly over the neck, axillae and eyelids. Neck was the most frequently involved area (90%) followed by axillae (38%) and eyelids (34%). Multiple sites ie more than 3 sites were involved in 36 patients.

Morphologically, skin tags were hyperpigmented and pedunculated in most of the patients. Commonly, the skin tags were small (less than 0.5 cm) in size, but showed a great variation in number.

Twenty patients had overt diabetes mellitus (DM) whereas impaired GTT was found in 8 patients. Disturbance of carbohydrate metabolism was found more commonly in patients who had multiple skin tags. Half of those with multiple skin tags had

either diabetes mellitus or impaired GTT. Twenty six patients were obese. Among these 8 showed overt DM and 4 showed impaired GTT. Twelve patients had raised serum cholesterol levels (ie more than 250 mg/100 ml), 8 of these 12 patients (66.6%) were obese.

Seborrhoeic keratoses were the most frequently seen skin disease in association with skin tags ie, in 32 patients followed by pseudoacanthosis nigricans in 12 patients. In total 8 patients had seborrhoeic keratoses, multiple acrochordons, pseudoacanthosis nigricans with obesity and diabetes mellitus together.

Discussion

In the present study we observed higher prevalence of abnormal glucose tolerance (28%) particularly in those patients with multiple skin tags. Twenty six patients were obese and those patients with multiple skin tags and obesity had high prevalence of abnormal glucose tolerance (46%). This suggests an association between obesity, multiple skin tags and abnormal glucose tolerance. Further 8 patients having obesity, abnormal glucose tolerance and multiple skin tags also had pseudoacanthosis nigricans and seborrhoeic keratosis.

Acrochordons, pseudoacanthosis nigricans and seborrhoeic keratosis represent proliferative skin conditions where role of growth factors has been suggested.[5] Insulin like growth factors have also been known to cause keratinocytes and dermal fibroblast proliferation.[6-10] Obesity is also associated with insulin resistence and consequent hyperinsulinemia and activation of IGF receptors.[11,12] In view of these evidences we propose an association of obesity, multiple skin tags, abnormal glucose tolerance, pseudoacanthosis nigricans and seborrhoeic kerotosis in form of a syndrome. This association in possibly due to insulin resistance and consequent to increased insulin and insulin like growth factors. Major limitation of our study is that peripheral insulin resistence was not assessed in any of these patients by either euglycemic clamp studies or IV GTT. However, the clinical evidence is very strong to support our hypothesis. Another important conclusion of this study is that if skin tags are multiple (more than 3) and involve multiple sites they can be taken as a marker for diabetes mellitus.

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