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COMPARATIVE STUDY OF CAMPBELL DE MORGAN SPOTS IN THE DIABETICS AND THE NON- DIABETICS

***Anterpreet Kaur Arora, **Jyotika Kalsy, ***Sonney Singh Kapoor**

*Department of Anatomy. Sri Guru Ram Das Institute of Medical Sciences and Research, Vallah, Sri Amritsar.

**Department of Dermatology and Venerology and Leprosy, Govt Medical College, Amritsar

***Department of Pediatrics. Sri Guru Ram Das Institute of Medical Sciences and Research, Vallah, Sri Amritsar.

ABSRACT: Cutaneous disorders associated with diabetes mellitus are thought to occur in about one third of patients during the course of their disease. The present study was undertaken to assess the incidence and to compare the incidence of Campbell de morgan spots in diabetics and non diabetics. The study was done on 250 patients who attended the Skin OPD. All the cases were noted and compared between diabetics and non diabetic patients. In our study, detailed history with special reference to age, sex, rural/urban background, socioeconomic status, obesity, hypertension, duration of diabetes, type of treatment taken, history of complications and family history of diabetes mellitus was taken from each patient in both the groups. Whenever patients present with multiple skin manifestations, their diabetic status should be checked and controlled; or if they are obese, a high index of suspicion should be kept regarding their diabetic status. The recognition of these findings is the key to treatment and prevention. Patients may demonstrate considerable concern regarding the cosmetic appearance of the lesions. The Incidence of cherry angioma in our study was 56 (44.8%) cases in diabetic group and 50 (40%) cases in non diabetic group.

Keywords: Campbell de Morgan spots, senile angiomas, diabetes, cutaneous manifestations

INTRODUCTION

Although the mechanism for much diabetes associated skin conditions remains unknown, the pathogenesis of others is linked to abnormal carbohydrate metabolism; other altered metabolic pathways, atherosclerosis, microangiopathy, neuron degeneration and impaired host mechanisms. [1] Majority of the patients with skin lesions had uncontrolled diabetes. [2][3]Skin is involved in diabetes quite often and whenever patients present with multiple skin manifestations, their diabetic status should be checked and controlled; or if they are obese, a high index of suspicion should be kept regarding their diabetic status. [4].A recent study suggests a parallel between Prichard's structures and Cherry angioma. [5]. Cherry angioma is a cherry-red to purple coloured benign skin tumour of unknown origin that appears most frequently after age 40. [6] [7] (Figure 1) Campbell De Morgan spots are also known as Cherry angiomas and Senile angiomas. [8] These are named after the nineteenth-century British surgeon Campbell De Morgan who first noted and described them.

Pathophysiology: Lesions may have a variable appearance, ranging from a small red macule to a larger dome-topped or polypoid papule. The colour of the lesions typically is described as bright cherry red, but the lesions may appear more violaceous at times. Rarely, a lesion demonstrates a dark brown to an almost black colour when a hemorrhagic plug occupies the vascular lumen, often raising concern about the possibility of a malignant melanoma. [9] Cherry angiomas are made up of clusters of tiny capillaries at the surface of the skin, forming a small round dome ("papule"), which may be flat topped.

They range in colour from bright red to purple. (Figure 1) As they grow larger, they tend to expand in thickness, and may take on the raised and rounded shape of a dome. Multiple adjoining angiomas are said to form a polyploidy angioma. The underlying cause for the development of cherry angiomas is far from understood, much because of a lack of interest in the subject. This is probably due to the fact that they very rarely are caused by an internal malignancy. Chemicals and compounds that have been seen to cause cherry angiomas are mustard gas, [10][11] [12], 2-butoxyethanol, [13] bromides, [14] and cyclosporine. [15] A correlation has been seen between cherry haemangioma and activity of the enzyme carbonic anhydride [16] as well as a significant increase in the density of mast cells in cherry angiomas compared with normal skin. [17]

MATERIAL AND METHODS

In this study 250 patients were evaluated in the Department of Skin and STD OPD. The patients were equally divided into two groups of 125 patients each (Group A and Group B). Group A: consisted of 125 diabetics in the age group of 30-60 years taken from Skin and STD OPD.

Group B: consisted of 125 non-diabetic control patients taken randomly from Skin and STD OPD in the age group of 30-60 years.

The diabetics were diagnosed as per the revised criteria of glucose tolerance given by Alvin. [18]Routine investigations like Hb, TLC, DLC, overnight fasting blood sugar, complete urine examination were done in each case in both the groups. Glucose tolerance test, serum cholesterol and 24 hour urine for proteins were done to confirm the diagnosis. The incidence of cherry angiomas in diabetic group, non- diabetic control group were assessed separately and then the incidence of cherry angiomas were compared in the two groups to know whether diabetes mellitus had any association with diseases of skin. The cherry angiomas seen in first time detected diabetics were recorded separately.

OBSERVATIONS & DISCUSSION

Cherry angiomas appear spontaneously in many people in middle age but can also, although less common, occur in young people. They can also occur in an aggressive eruptive manner in any age. In most patients, the number and size of cherry angiomas increases with advancing age. They are harmless, except in very rare cases that involve a sudden appearance of many angiomas, which can be a sign of a developing internal malignancy. The incidence of cherry angiomas is uniform across all races, but individual lesions are most noticeable in pale-skinned individuals. Lesions of cherry angiomas are benign and usually do not undergo spontaneous involution. Cherry angiomas typically present in the third or fourth decades of life, and early lesions may appear as small red macules. Lesions may be found on all body sites, but usually, the mucous membranes are spared. Most patients report an increase in number and size of individual lesions with advancing age.

In our study in Group A, cherry angioma as observed in 56 (44.8%) cases and in Group B it was observed in 50 (40.0%) cases. (Table 1 & 2) The difference was statistically non significant. Increased numbers have been recorded in diabetics, but this may not be significant as observed by Bean [19] the same was seen in our study. (Table 1 & 2) In the diabetic group 46 patients had uncontrolled diabetes mellitus and 26 were obese. In non diabetic group majority of the cases were obese (Table 3) i.e. 35 and had family history of diabetes mellitus positive. In study by Mahajan S et al, out of 100 age and sex matched controls having cutaneous lesions, two patients (9.1 %) had senile angiomas. [1]

In group A- there were 83 (66.4%) female cases and 42 (33.6%); male cases while in group B there were 97 (77.6%) female cases and 28 (22.4%) male cases. (Table 5)

In our study majority of the cases in group A were in the age group of 50-60 years (44.8%) whereas in group B majority of the cases were in the age group of 30-40 years (52.8%). (Table 4)

TABLE 1 : SHOWING INCIDENCE OF CHERRY ANGIOMAS OBSERVED AMONG DIABETIC AND NON-DIABETICS

Groups	Cases of Cherry angiomas	Total	%age
Diabetics A	56	125	44.8
Non-Diabetics B	50	125	40.0

TABLE 2 : SHOWING COMPARATIVE PATTERN OF CHERRY ANGIOMAS GROUP A AND GROUP B

Group A(Diabetic) n=125		Group B(Non-Diabetic) n=125		X^2	p value
No	%	No	%		
56	44.8	50	40.0	0.47	>0.050

TABLE 3: SHOWING THE OBESITY STATUS OF DIABETIC CASES

Weight status	No. of cases	%age
Under weight	14	11.2
Healthy	43	34.4
Overweight	41	32.8
Obese	24	19.2
Very obese	3	2.4
Total	125	100

TABLE 4 : SHOWING AGE WISE DISTRIBUTION OF DIABETIC CASES

Age group (in years)	No. of cases	%age
30- 40	26	20.8
>40-50	43	34.4
>50- 60	56	44.8
Total	125	100

TABLE 5 : SHOWING SEX WISE DISTRIBUTION OF DIABETIC CASES

Sex	No. of Cases	%age
Female	83	66.4
Male	42	36.0
Total	125	100

Figure-1: Campbell De morgan Spots on Anterior abdominal and thoracic wall

SUMMARY AND CONCLUSION

Among the diabetics, Cherry angiomas were observed in 44.8% of cases. Among the non-diabetics, cherry angiomas were recorded in 40% cases. Increased numbers have been recorded in diabetics but this may not be significant. (Table 1 and 2) In group A- there were 83 (66.4%) female cases and 42 (33.6%); male cases while in group B there were 97 (77.6%) female cases and 28 (22.4%) male cases. (Table 4) It is evident that there was female preponderance in both the groups. One of the reasons could be that majority of the cases coming to Skin and OPD Amritsar were females. In the diabetic group 46 patients had uncontrolled diabetes mellitus and 26 were obese. In non diabetic group majority of the cases were obese i.e. 35 and had family history of diabetes mellitus positive. (Table 3) So whenever patients present with multiple manifestations their diabetic status should be checked and controlled, or if they are obese and have positive family history of diabetes mellitus, a high index of suspicion should be kept regarding their diabetic status In this way diabetes can be detected quite early and early intervention can prevent morbidity from this deadly disease.

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