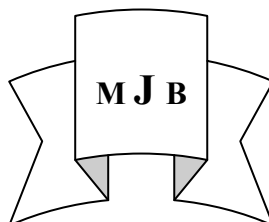


Cheiroarthritis in Diabetic Patients Babylon Province

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Abstract

Cheiroarthritis was assessed in 100 diabetics (50 Type I DM , 50 Type II DM) and (50 non diabetic control) matched for age and sex, according to clinical examination (sign and symptoms).

The are to study the prevalence of cheiroarthritis in diabetic patients (both TYPE I DM and TYPE II DM) and evaluate association between this sequel and the duration of the disease.

Prevalence of Cheiroarthritis in TYPE I DM vs. TYPE II DM was (56% vs. 36%)

There was significant statistical difference ($P < 0.05$) between TYPE I DM and TYPE II DM regarding this sequel. In which it is higher in TYPE I DM.

Cheiroarthritis occurs more frequently in both TYPE I DM and TYPE II DM than in the control group ($P < 0.05$); its occurrence appeared to be directly related to disease duration

تحدد حركة مفاصل اليد عند مرضى السكر

الخلاصة

دراسة لمعرفة نسبة انتشار تحدد حركة مفاصل اليد تم فحص مائة مريض من مرضى السكر (خمسون من نوع (١) وخمسون من نوع (٢) واختيارهم تناسباً مع العمر والجنس لمرضى السكر اعتماداً على الأعراض والعلامات السريرية. وكذلك معرفة العلاقة بين تقدم المرض وظهور هذه العقوبة.

وكانت النتائج:

نسبة انتشار تحدد حركة مفاصل اليد عند المرضى نوع (١) ونوع (٢) هي: ٥٦% مقابل ٣٦%.

ومن خلال هذا البحث ظهرت هنالك فوارق ذات أهمية إحصائية بين مرضى السكر نوع (١) والمرضى المصابين بمرض السكر نوع (٢) حيث أن مرض تحدد حركة مفاصل اليد أكثر انتشاراً في مرضى السكر نوع (١) وكذلك ظهرت هنالك علاقة مباشرة بين تأريخ المرض وظهور هذه العقوبة.

Introduction

Cheiroarthritis is most commonly seen in adult type I diabetes and also type II diabetes mellitus, it affects predominantly the small joints of the hand, its incidence as been reported to be 35% , LJM leads to stiffness of skin mainly of the dorsal aspect of the hand [7]. Cheiroarthritis is generally painless and seldom treated until hand deformity is severe enough to interfere with daily life because cheiroarthritis is correlated with microvasculare complication of

diabetes; patient with hand syndrome should be carefully investigated for neuropathy, retinopathy and nephropathy[8-11].

Aim of the study

To study the prevalence of cheiroarthritis in diabetic patients TYPE I DM and TYPE II DM) and its relation to disease duration .

Patients and Methods

One hundred patients (50 TYPE I DM and 50 TYPE II DM) attending the Diabetic Clinic at marjan

Teaching hospital , between July 2006 and June 2007, were examined , their ages at the time of the study ranged from (30-59) years, mean (44.6) years for TYPE I DM and (45 -60) years , mean (47.6) years for TYPE II DM , their sex was (28 male- 22 female) and (30 male-20 female) respectively, 50 randomly selected (age and sex matched) healthy individual were included.

To demonstrate joint mobility of the fingers the patients were examined by : Table top test [3] (Figer 1)

The patients is asked to place both hands, palms down, on a table with

fingers fanned out and the examiners views the hands at a table level to see the contact of the palmar surface to the table, any abnormalities detected may be made more obvious by asking the patients to perform the prayer manoeuvre .Figer 3 shows normal test, while Figer 4 shows abnormal one The presence of puckering of the skin over the involved fascia was noted to distinguish between early dupuytren's and flexor tenosynovitis.

Statistical analysis

Data were analyzed using chi-square and Z-test.



Figure 1 Normal



Figure 2 positive table top test



Figure 3 Normal



Figure 4 Inability to bring together the palms of the hand (prayer sign)



Figure 5 Limited joint mobility in the hand**Results**

Demographic characteristics of the patients with diabetes mellitus and control group are shown in Table (1).

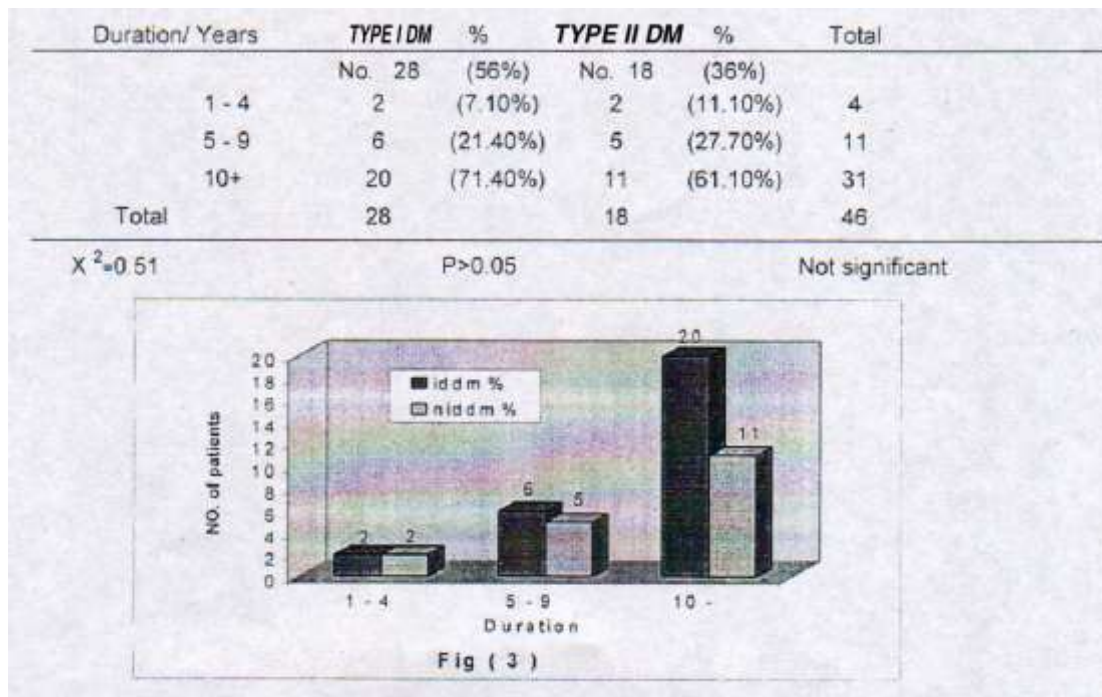
The prevalence of cheiroarthropathy in insulin dependent diabetes mellitus (TYPE I DM) was (56%) (28/50), two patients (7.1%) developed this sequel during (1-4 years) from the onset of the disease, six of those (28) patients (21.4%) developed this sequel during (5-8 years) and the last 20 patients (71.4%)

developed cheiroarthropathy during (10 years) and above.

While the prevalence of cheiriathropathy in TYPE II DM was (36%) (18/50) which less frequent than TYPE I DM with was asignificant atatistical reference ($P < 0.05$), two patients (11.1%) developed LJM during (1-4 years) from the onset of DM , five patients, (27.7%) during (5-9 years) and 11 patients (61.1%) developed this sequel during (10 years)and more. (Table 2).

Table 1 Characteristics of patients and control group

	(TYPE I DM)	(TYPE II DM)	(Control)	(P-value)
Number	50	50	50	
Male:female	28:22	30:20	26:24	
Age(mean)	30-59 (44.6)	45-60 (47.6)	35-57 (45.3)	
Cheiroarthropathy	28(56%)	18(36%)	5(10%)	<0.05

Table 2 Duration of Diabetes Mellitus Limited Joint Mobility(chiroarthropathy)

Discussion

A variety of rheumatic disorders have been described in patients with diabetes mellitus and these conditions are more prevalent in diabetics than in general population, but are not unique to patients with diabetes [12-14].

In our study and in congruence with other reports, we have found higher prevalence of cheiroarthropathy in diabetes than in controls ($P<0.05$).

Cheiroarthropathy was more prevalent in TYPE I DM (56%) than in TYPE II DM (36%) with significant statistical difference ($P<0.05$) in contrast to other studies in our country [14], where LJM was more prevalent but with significant statistical difference between TYPE I DM and TYPE II DM; other reports that agree with our finding was mentioned by Dr. Taner 1996 [5].

The development of cheiroarthropathy (LJM) was found to be directly related to disease duration in both TYPE I DM and TYPE II DM which was agreed upon by Dr. Khider [14]

In conclusion, LJM occurs more frequently in both TYPE I DM and TYPE II DM than in control, its occurrence appear to be directly related to disease duration.

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