

Comparative study between Juvenile and adult psoriatic arthropathy in mosul area

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Abstract

Psoriasis is a non-infectious, chronic disease of the skin. Arthritis associated in various age groups. This study used to evaluate the difference between juvenile and adult psoriatic arthropathy at Mosul city, Mosul teaching hospital during the period of 1st Jan. till 30th of June 2002. 115 patients with psoriasis participated in this study, 80 of them more than 16 years old consist of 41.9% male and 58.1% female with mean age \pm SD = 38.6 ± 15.3 , while other 35 patients less than 16 years old consist of 60% male and 40% female with mean age \pm SD = $9.2 (4-16)$. Arthritis associated, followed by antedated skin lesions, in 20% of them nails were affected, only 20% of juvenile patients and about 80.5% of adult patients were complaint of morning stiffness and only 10.5% of adult patients developed ocular involvements in form of iritis. Family association of psoriasis and or psoriatic arthritis were presents in both juvenile and adult patients with psoriatic arthritis.

دراسة مقارنة لنمط إلتهاب المفاصل المصاحب لداء الصدفية عند الكبار والأطفال في مدينة الموصل

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المستخلص

أجريت دراسته تحليلية في مدينة الموصل على (115) مريضا مصابا بالصدفية يراجعون عيادة الأمراض الجلدية في المستشفى التعليمي للفترة من الأول من كانون الثاني إلى نهاية شهر حزيران 2002 ، وتضمنت الدراسة عزلا للمرضى البالغين أكثر من 16 سنة وكان عددهم (80) والذين هم دون ذلك وكان عددهم (35) وتبين أن 27% من الكبار مصابين بالتهاب المفاصل بينما فقط 16.1% من الأطفال كانوا مصابين بالمرض. وكانت نسبة الرجال إلى النساء لدى الكبار (1,5/1) بينما كانت النسبة معكوسة عند الأطفال، وأظهرت الدراسة تشابه الصنفين بنسبة إلتهاب الأظافر ونهاية سلاميات أصابع اليدين وإختلاف واضح بنسبة إلتهاب العيون حيث أن نسبتها عند الكبار 10,5% بينما كانت سلبية عند الأطفال إذ ربما لم تظهر بعد أو تحت السريري وكذلك هناك إختلاف واضح بنسبة المرضى الذين يعانون من الكسل الصباحي حيث كانت عند الأطفال 20% وعند الكبار 80,5%، وهناك دور واضح للوراثة في تطور المرض عند الكبار والأطفال سواء من الدرجة الأولى أو الثانية لصلة القرى.

Introduction

Psoriasis is a common disease of skin, non-infectious, chronic inflammatory often characterized by well defined erythematous plaques with silvery scales particularly on the extensor prominence and in the scalp (1,2). The prevalence of psoriasis varies from 9.9% in western Europe and Denmark(3,4) to 0.3% in oriental countries like Indian and Chinese (5,6) and 0.1% in USA (2,8,9). Similar to prevalence of psoriasis, The prevalence of Juvenile and adult psoriatic arthritis has varied widely among hospitalized patients with psoriasis from 6.8%...(6) rose to 34% in Italian study involved (180) psoriatic patients (7,11,12). Juvenile psoriatic arthritis is defined as an inflammatory arthritis usually sero-negative begin before age of 16 years (10,12,13). The aim of the study is to investigate the pattern of Juvenile and adult psoriatic arthropathy in Mosul city, while the objectives of the study are:-

- 1-To estimate the prevalence of psoriatic arthropathy among psoriatic patients (Juvenile and adults) in Mosul area.
- 2-To study the pattern of this disease in juvenile and adult patients.
- 3-To define the correlation between different risk factors and development of this disease.
- 4-To evaluate difference between juvenile and adult psoriatic arthritis in this study

Patients and methods

Study period :- between the 1st Jan. and the 31st July 2002, 115 patients with psoriasis were asked to participate in this case series study.

Study setting :- the dermatology clinic, Mosul teaching hospital. Data collection :- data obtained from each patient, at first interviewed and

examined clinically by dermatologist and saved in medical record contain all informations (clinico-demographic), type, site, time of flare up and extent of skin lesions.

The following criteria were measured for diagnosis :-

1-Psoriasis: - skin lesion (erythematous, sharply demarcated plaque with thick silvery scales)(2).

2-Severity of psoriasis :- was estimated by measuring the surface area of involved skin by using rule of (9)..(2,10,13)

Mild = < 10%, Moderate = 10-20% , Severe = > 20%

3-Arthritis means joint pain with one or more of the following (swelling, redness, tenderness and limited (ROM).(8,9) with exclusion of other causes of acute or chronic arthritis like septic, gouty arthritis...etc(14)

Study analysis :- the data has been analysed by the use of statistical package spss ver.10,11,12 (Chicago inc.ill). First descriptive statistics were used to summarize the data and to estimate the prevalence of arthropathy, then bivariate chi-square test was used to study the association between proportional predictor variables (age group, sex, ethnic group, religion, type, site, severity of skin lesion, nail affection) and outcome variable (arthropathy).

One way MANOVA test was used to study association of duration of psoriasis and development of arthropathy, P-value of < 0.05 was considered statistically significant.

Results

A total of 115 patients with psoriasis participated in this study their age ranged from 2-65 years with mean age \pm SD = 30.7 \pm 16.8 consist of 63 males (54.8%) and 52 females (45.2%)

Table (1):- Show the characteristics of Juvenile and adult psoriatic arthritis among studied sample.

Sample description	Juvenile type	Adult
Prevalence of arthritis	16.1%	27%
Mean age \pm SD	9.2(4-16)	38.6 \pm 15.3
Sex distribution(δ / η) ratio	1.5:1	1:1.5
Most common type of arthritis	Asymmetrical mono articular arthritis consisting of 80%	Asymmetrical oligo arthritis (less than 4 joints affected) consisting of 54.8%

Table (2):- Show the relation between onset of skin lesion and onset of arthritis.

Valid	Juvenile psoriatic arthritis	Adult psoriatic arthritis
Skin lesion precedes arthritis	40%	68%
Skin lesion follows arthritis	20%	13%
Simultaneous presentation	40%	19%

Table (3):- Show other pattern of Juvenile and adult psoriatic arthritis.

Characteristics	Juvenile ps.arthritis	Adult ps.arthritis
Morning stiffness(>1/2hr)	Present in 20% of studied patients	Present in 80.5%
Family history of psoriasis	40%	25.8%
Family history of psoriatic arthritis	20%	6.5%
Ocular involvement	Nil	10.5%
Nail lesion	20%	20%
Distal interphalangeal involvement	20%	19%
Sacroiliitis	Nil	51%
Type of skin lesion associated arthritis	Plaque = 80% Guttate = 20%	Plaque = 77.4% Guttate = 12.4% Erythrodermic=9.7%
Severity of skin lesion	Mild = 80% Moderate = 20%	Mild = 54.6% Moderate = 22.6% Severe = 22.8%

The study revealed no relation between site and duration of skin lesion with development of both juvenile and adult psoriatic arthritis, also there is no rule of ethnic, religion, residence and occupation of patients to the development of arthritis.

Discussion

A comparative study was done between the results of pattern and characteristics of juvenile and adult psoriatic arthropathy, we noticed various difference between variants. The prevalence of adult psoriatic arthritis was 27% of studied patients while the prevalence of juvenile much less equal to 14.28% of studied psoriatic patients less than 16 years old. Male predominant to female (1.5:1) in juvenile type which versus to adult type in which female predominant to male (1.5:1). Moreover, there is accordant in both variants in this study about genetic factors which play an important role in developing arthritis with increase chance in the first degree relatives. Asymmetrical monoarticular arthritis is the most common type of juvenile psoriatic arthritis consisting of 80% while asymmetrical oligoarthritis is the most common presentation in adult type consisting about 45.8%, furthermore sacroiliac joint never involved in juvenile type inconsistent to adult type when sacroiliitis occurred in 51%. Similar to this observation eyes never involved in juvenile type, it could be asymptomatic or early while iritis present in 10.5% of adult patients with psoriatic arthritis according to ophthalmologist. Nail lesion and distal interphalangeal joint of the hands involved equally in both juvenile and adult type, also significant morning stiffness (>1/2 hr.) present in 80.5% of patients with adult type which only

present in 20% of patients with juvenile type. On the other hand, type of skin lesion mostly plaque and guttate in both juvenile and adult types, also extent of skin lesion were mild to moderate in both variants and 22.8% of adult psoriatic arthritis have had more extensive skin lesion. This study shows no relation between site and duration of skin lesion with development of arthritis in both juvenile and adult type. Also there is no role of ethnic, religion, residence and occupation of patients to the development of both juvenile and adult psoriatic arthropathy.

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