

Prevalence Of Pityriasis Alba Disease Among Primary Schools Children In Al-Kufa City.

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الخلاصة:

أجريت هذه الدراسة المقطعية في قضاء الكوفة/ محافظة النجف الاشرف لتحديد نسبة الإصابة بمرض داء النخالية البيضاء ، هدف الدراسة: تحديد نسبة الإصابة بمرض النخالية البيضاء عند تلاميذ المدارس الابتدائية، مكان الدراسة: المدارس الابتدائية في قضاء الكوفة/ محافظة النجف الاشرف حجم عينة الدراسة: العدد الكلي للمدارس الابتدائية التي شملتها الدراسة 38 مدرسة و عدد التلاميذ الكلي فيها 18356. تاريخ جمع العينة: الفترة من 10 / 10 / 2011 لغاية 31 / 4 / 2012 .

التحليل البياني: التحليل البياني باستخدام التحليل الإحصائي الوصفي المتضمن (مربع كاي) . النتائج: بينت الدراسة أن عدد المصابين بداء النخالية البيضاء 1935 بنسبة (10.54%)، وعدد الذكور المصابين 1067 (55.14%) وعدد الإناث 868 (44.86%) و نسبة الإصابة بداء النخالية البيضاء عند الذكور أكثر من الإناث والفئة العمرية بين (6 – 8) سنة أكثر الفئات تعرضاً للإصابة من الفئات العمرية الأخرى، كما وتبين إن البقع البيضاء أكثر وضوحاً عند الأطفال ذوي البشرة السمراء من الأطفال ذوي البشرة البيضاء، ولوحظ أن ظهور البقع في الوجه أكثر من بقية أجزاء الجسم الأخرى، وان عدد المصابين الذين يعانون من فقر الدم 232 من المصابين بنسبة (12%)، 242 بنسبة 12.5% يعانون من الإصابة بالديدان الدبوسية، وطفيلي الجيارديا لامبلييا، والانتيميا الحالة للنسيج فضلا عن وجود طفيليات معوية أخرى. الاستنتاجات : في هذه الدراسة تبين بان نسبة الإصابة بداء النخالية البيضاء كانت مقبولة مقارنة بالدراسات المشابهة التي أجريت في عدة أقطار و ذلك يعكس الإهمال ،قلة العناية الشخصية،نقص التغذية، وقلة الرعاية الصحية الأولية. التوصيات : بناءا على نتائج هذه الدراسة نوصي بإجراء الفحص الطبي في بداية العام الدراسي ، إجراء الفحص الدوري للتلاميذ ذات أهمية التربية الصحية للمعلمين والآباء حول العناية الصحية الشخصية و نظافة البيئة . مفردات البحث : تحديد نسبة ، مرض النخالية البيضاء، تلاميذ المدارس الابتدائية .الكوفة.

Abstract

This is a cross-sectional study was conducted in Al-Kufa city/ Al-najaf Al-Ashraff province to determine the prevalence of pityriasis alba in the children of primary school.

Study aims to determine the prevalence of Pityriasis alba in the children of primary schools.

The setting of study: The study was conducted in Al-Kufa city /Al-Najaf Al-Ashraff province.

Data collection : During the period from 1/4/2011 to 31/4/2012.

The study sample: The total number of primary school submit *ted was 38 and the number of total pupil were 18356, and founded the number of infected pupil with pityriasis alba was 1935 with percentage (10.54%), number of male was 1067 (55.14%) and number of female was 868(44.86%).

Data analysis: The data was analyzed through the application of descriptive statistical analysis that include (Chi-square) , and application of inferential statistical analysis that include (chi-square , P value) .

Results: The results of this study showed that the prevalence of pityriasis alba in the male is more than in the female, the more exposed infected age group was between (6-8 year). The white patches were more clear in dark color, appearance of patches in the face was more clear than other parts of the body. The number of pupil who suffered from anemia was 232 (12%), and 242 (12.5%) suffered from infected with Oxyuris vermicularis, Giardia lamblia, Entamoeba histolytic and other parasites.

Conclusion: We conclude in this study that the prevalence of pityriasis alba was acceptable in comparison with other similar studies in many countries, this may reflect some negligence, poor personal hygiene and nutrition in primary schoolchildren, care health provided was inadequate.

Recommendation: Based on the above results, this study recommended that the primary health care sector must examine the children in beginning of study. Periodic skin examination is of a high value. Health education for teachers and parents on sound personal hygiene and clean environment are recommended.

Keyword: Prevalence, Pityriasis alba, Primary schools.

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INTRODUCTION:

Skin is a mirror of the body (1). Skin diseases are common in children, and considered a major health problem in the pediatric age group. They are associated with significant morbidity (2). Skin disorders are among the most frequent ailments of schoolchildren in both developing and industrialized countries (3). Pityriasis alba is a common Cutaneous disorders characterized by asymptomatic, hypopigmented patches on the face, neck, trunk and proximal extremities of children(4). The cause of PA is still unknown, but the condition is widely considered as a mild form of atopic dermatitis(5). Pityriasis alba disease in children are more influenced by socio-economic status, climatic exposure, dietary habits and external environment as compared to adults, cutaneous dermatoses are common in children during school going years (6), Poverty, malnutrition, overcrowding, poor hygiene, illiteracy and social backwardness (7), helminthes (8), iron deficiency (9), soaps and Cutaneous xerosis (10). Recent studies have found direct relations between the incidence of PA disease and atopy, the amount of the sun exposure, the lack of sunscreen use, and frequency of bathing (11). PA disease is found all over the world. It is quite common, affecting between 1.9 and 5.25% of all children, the peak of incidence is between 6-12 years (6).

The spread of certain skin diseases in children can reflect status of health, hygiene, and personal cleanliness of a community (12), it affects over 90% of children of poor socioeconomic condition (6), PA is affecting about 5% of pediatric population (13). In USA up to one-third of the school-going population of children are affected by this condition at some stage of their life(14).

The prevalence of PA is differed from one country to another, until from city to city in the same country depending on the several factors, in Al-Saudi Arabia respectively in eastern the prevalence was 1.6% (3), but in the Al-Hassa was between 15.1 to 19.2% (15). M. D. Al-Mendalawi (2012) found the prevalence of PA in Bagdad in (2010) 1.1% (16), Nanda et al (1999) in Kuwait, in here study had found the prevalence of PA was 5.25% (17) respectively, Jordan 27.1% (18), Turkey 12% (19), Iran 9.4% (20), Arshah TM (2008) in Libya found the prevalence of PA was (10.5%) (21), Egypt 13.49% (22), Senegal (31%) (23), Ethiopia (28.42%)(24), India 5.85%- 8.4-33.4% (25), Hong Kong 1% (26), Nepal 5.2% (27) Mexico 6.6%(28), and Brazil 9.9% (29).

There is a relationship between the prevalence of PA associated with other diseases affected the same patient due to increase the prevalence, Al-Rubaiy KK (2004) from Iraq, was demonstrated, that in the thalassimia disease the prevalence of PA increased to 38.5% (30), also in Egypt was 13.5% in deaf and mute (1), in Suadia Arabia, Mostafa A (2000) found the prevalence of pityriasis alba in the blind was 21.9 % (31).

OBJECTIVES OF THE STUDY :

- 1- To determine the prevalence of Pityriasis alba in the children of primary schools.
- 2- To determine the measures that due to decrease Pityriasis alba.

MATERIALS AND METHODOLOGY

Administrative Arrangement: Prior to actual collection of data, formal administrative approval was to conduct the study from the ministry of education(primary schools) conducted in Al-Kufa city/ Al-najaf Al-Ashraff province to order to conduct the study.

Setting of the study: The study was conducted in Al-Kufa city/ Al-Najaf Al-ashraff during the period from (1/10/2011 to 31\4\2012).The study was established by data collected from primary schools.

Design of the study: The cross-sectional study was carried out to determined the prevalence of Pityriasis alb.

The sample of the study: The study involved 38 primary schools with 18356 schoolchildren, the number of male pupil was 10010, while female was 8346.

Tools of the study:

- 1- All the pupils were examined clinically directly under the sun light to diagnose the PA in the schoolchildren.
- 2- General stool examination .
- 3-Hemoglobin percentage.

Data collection: The data, which were collected in 38 schools from period (1/10/2011 to 31/4/2012).

Statistical analysis: Descriptive and analytical statistics were carried out by utilizing the statistical package for social science (SPSS).

Chi-square was applied for categorical variables to obtain any statistical differences.

Results: The study was showed that the prevalence of pityriasis alba among schoolchildren was 10.5%. The most age group affected was between 6 and 8 year, also the percentage in the male it was higher than female, the main affected age group was between 6-8 years, the patches were more apparent in pupil with dark color skin than white, and the commonest site of lesion which affected was the face, neck, less common trunk and exterminates . The study shows many pupils were suffering from anemia, which was common in the female than in male, and intestinal parasites, which were versus anemia, in the male was more than in the female.

Table(1): Distribution of total pupils according to gender

Gender	Number	Percentage
Male	10010	54.53
Female	8346	45.47
Total	18356	100

Table(1) shows total number of pupils which indicates the males are more than females.

Table(2): Distribution of pupils according to age group

Age Group	Gender	Number	Total	Percentage
6-8	Male	3697	6549	35.68
	Female	2852		
9-11	Male	3218	5943	32.38
	Female	2725		
12 – more	Male	3095	5864	31.94
	Female	2769		
Total	Male	10010	18356	100
	Female	8346		

Table(2) shows that the age group of 6-8 years was more than other groups

Table(3): Distribution of infected pupils according to total number and gender

Gender	Total number	Infected pupil	Percentage
Male	10010	1067	10.7
Female	8346	868	10.4
Total	18356	1935	10.55

$$X^2 = 0.324 \quad (\text{no significant}) \quad P = 0.56$$

Table (3) shows that males infected pupils are more than females infected pupils.

Table(4): Distribution of infected pupils according to age group

Age Group	Gender	Number	Total	Percentage
6-8	Male	392	691	35.7
	Female	299		
9-11	Male	349	637	32.9
	Female	288		
12 – more	Male	326	607	31.4
	Female	281		
Total	Male	1067	1935	100
	Female	868		

There is no significant difference between age group in relation to infection

$$X^2 = 0.423 \quad P = 0.809 \quad (\text{No significant}) \quad p \text{ value} > 0.05$$

Table(4) shows that the more age group affected of pupils was between 6-8 years.

Table(5): Distribution of pupils according to anemia

Gender	Total Number	Anemic pupil	Percentage
Male	1067	86	8
Female	868	146	16
Total	1935	232	Mean 12

$$X^2 = 34.81$$

$$P \text{ value} = 0.001$$

Table (5) shows difference between male and female in relation to presence of anemia among infected pupils, and the females were more affected than males.

Table(6): Distribution of pupils according to infection with parasites

Gender	Total Number	Infected pupil	Percentage
Male	1067	145	13.6
Female	868	97	11.2
Total	1935	242	Mean 12.5

$$X^2 = 2.55$$

$$P \text{ value} = 0.11$$

Table(6) shows that the males were more infected by parasites than females.

Table(7): Distribution of pupils according to site of lesion

Site of lesion	Infected pupil	Percentage
Face	1761	91
Neck	136	7
Trunk	19	1
Other	19	1
Total	1935	100

Table(7) shows that the face was the most site of lesion than other sites .

Table(8): Distribution of pupils according to face color

Face color skin	Number of pupils	Percentage	Infected pupils	Percentage
Dark	11931	65	1355	70
White	6425	35	580	30
Total	18356	100	1935	100

$\chi^2=24.036$

P value <0.001

P value < 0.05

Table (8) shows that the lesions were clear in pupils with dark color more than the white color.

DISCUSSION:

In this study, table (1) showed that the prevalence of pityriasis alba was 10.55% ,it was clearly the percentage of PA in male was 10.7 % , it is more than female 10.4% , because it is proportional with number of male 10010 (54.53%) to the female 8346 (44,47%), this result was less the results of many studies, as Blessman which was (58.25%) (2002)(8), Freedberg *et al* (2003) (32), Rita , *et al* (2012) (33), Wahab MA (2012) and *et al*. The range of age of schoolchildren was between 6- 12 years (34) the same range was in majority of studies as in the study of Sicherer SH, Sampson HA (2006) (35). Table (2) showed that the common affected group of schoolchildren was 6-8 years, but Soudabe Tirgar (2010) in his study, found the common age group was 10 years but in study of the site of lesion in this study was higher in the face (91%) table (3), as in the study of Sicherer SH, Sampson (35).

Patches were well apparent in schoolchildren with dark color skin (70%) table (8), Dermatol Res Pract. (2012), (36), Vargas-Ocampo F. (2007) (37), Darnell, Thomas Fensured the same thing (38), Soudabe Tirgar (2010) improved in his study (20) but schoolchildren affected with iron deficiency anemia in this study was 8 % for male, and more higher in the female 16 % table(5) ,and helmenthiasis detected in 12.5% table (6),these values were less than values in study of Sujata Vindo *et al* , (2002) 15.5% for anemia and 16.5% for helmenthiasis (14).

CONCLUSION:

We conclude in this study that the prevalence of pityriasis alba was acceptable in comparison with other similar studies in many countries that have the same conditions , this may reflect some negligence, poor personal hygiene and nutrition in primary schoolchildren, care health provided was inadequate.

RECOMMENDATIONS:

According to the results of the study, primary health care sector must examine the children in beginning of study. Periodic skin examination is of a high value. Health education for teachers and parents on sound personal hygiene and clean environment is recommended.

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