Incedence of Pediculosis Capitis in Hilla School-Aged Students

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Abstract

A total of 1251 students was seen in Hilla schools at winter time. Ther were 755 students from primary school, and 496 students from secondary school. Their ages ranged from 6-20 years with a mean of 11.9 years and the sex ratio female/ male was 2/1.1

Pediculosis capitis was found in 36.13% among the total students, their ages ranged from 6-18 years with a mean of 10.3 years while the sex ratio was 1.4/1 girls/boys. In primary school the affected children accounted for 30.45%, while in the secondary school there were 5.67% of children infested with pediculosis capitis, more among girls than boys.

Introduction

Pediculosis capitis have been a major public heaalth problem specially in children at preschool age and their family members often suffer from this, the source of infection is usually other children from nursery and primary schools[1,2], persons of any age may be involved[3]. Some studies have found girls to infested more than boys[4] but others show a roughly equel incidence[5]. The longer hair that girls have traditionlly worn is the explanation often given for the possible sex difference. Head lice are less common in blacks[3]. American blacks rarely have head lice[6]. Although head lice infestations occur more commonly among lower socioeconomic groups, they can be found in any population. Minor epidemics have been reported at many schools across the country[3]. Hair-to-hair contact is the usual mode of transmission but it is possible that fomites may also be responsible when infested hats, hair brushes, combs, towels, bed linen and pilows are additional poential sources of transmission, lice spread more rapldly in large families in which crowded conditions, bed sharing and poor hygiene exist[5]. The role of hygineis is emphasized by the significantly higher incidencein these of low intelligence[7,8] and the physically handcapped[9]. This disease is caused by infestaton with pepculosis humanus capitis, the head louse[10]. The egg or nit hatches in 8 days, and the nymphs require a further 8 days to reach maturity. These eggs are oval, lidded capsules, firmly cement-

ed to the hair or a thread of fabric[11].

Head lice can be found any where on the scalp, but are most commonlly seen on the back and sides of the head and behind the ears[6,12]. In rare cases they may travel to the bead or other hairy areas in adults[13]. The eye lashes may be involved, causng ther redness and swelling .

Irritation follows hypersensitivity to salive injected at the time of biting or louse faeces leading to itching and excoriation which may give rise to secondary bacterial infections with impetigo and pustular lesions[3,12,2]. In most cases, examination of the scalp will reveal excoriations and crusts. Extensive crusting in which the hair is often matted, uaually signifies secondory impetiginziation. Enlarged posterior cervical nodes are common, with or without secodory infection. In some cases of head lice a maculopapulor erythematous eruption on the trunk and even urticarial lesions, have been reported. Although pruritus is characteristics and common, it is variable in severity and is entirely absent in some cases[3].

Aims of the study

Pediculosis capitis seems to be a common disease in this city that is why this study was conducted to shad lights on this problem and also to see the effects of the unfair blockade and the difference in distribution of this disase during and after blokade.

Patients and methods

A total of 1251 students was seen randomly in their schools at Hilla city at the time period between Jan.to April 1994. Their ages ranged between 6-20 years, the sexes differ; male 404 which were half of the females 847. The number of the students from the primary schools was 755 studnets, while from the secondry schools they were 496 students.

All these students were examined carefully by looking for the presence of nits and pediculi, impetigo and other skin lesions, enlarged cervical and posterior auricular lymph glands. also we recorded how these students lived in their houses as well as in their schools, the type of water supply, the number of bed rooms, the presence of soaps and shampoo used, if the students lived with his parent or only with his mother or father or with others. We explained to the students the complication of pediculosis capitis and the importance of hyegine in their life. All infested student were treated with freederm shampoo.

Results & Discussion

A total of 1251 students was seen at Hilla schools; (primmary schools 755 students and secondary schools 496 students table(1), their ages ranged from 6-20 years with a mean of 11.0 years, the percent of male to femal 1.1 : 2. The age of the students infested with head louce

ranged 6-18 years with a mean of 10.3 years.

Various skin problmes were seen among these students. The major was pediculosis capitis which was accounted for (36.13%) of the total cases. (50.46%) of the total students from the primary schools and 14.3% of the total students from the secondary schools). Figure (1) showed the frequency of distibution of pediculosis capitis. Head louse affected 21% of the examined girls, while its incidence in boys was 15.1% of the total cases table(2). Most of the infested students were asymptomatic and pediclosis brought no problem to them, only three students have got impetigo in their scalp.

The head louse has a worldwide distribution and has a cyclical flactuation in its epidemices like it is increased during war time...etc. Infestation is still frequent in many communities. Incertain British cities in 1940 about 50% of girls and 20% of boys were infested, but by 1960 the incidence had fallen to 15% respectively[11] very much lower rates were reported from rural areas. Since 1970 the incidence has again been rising in town and country distircts[11]. However, there were an estimated 6,000,000 cases of head lice in the Unitedstates in 1976, a sharp increase over 1973 and 1974[14]. The incidence formerly tended to be highest in the preschool years and then to fall rapidly in boys but to be maintained or even increase in girls[9]. The length o f hair is not a factor influencing the frequency of infection[2,3,6,11], which is similar to what have been found in our study. Infestation may remain frequent in adult life even in some westernized communities, and some more primitive communities may exceed 80%[11]. No age is immune. The incidence was significantly lower in Negro children that in caucasian children attending the same school[11]. Pediculosis capitis accounted for 5.6% of Iraqi children their ages ranged below (1-16) years[2]. In previous study on Kufa school aged students in 1990 was found that head louse affecting 14.8% of school aged students (11.7% of the girls, 3.1% of the boys), which was less than what has been reported in certain british cities and other countries[11] in our study we found that pediculesis capitis accounted for 36.1% of school aged students (21% of them are girls, 15.1% are boys) table(2). This percent is more than what had been reported in the previous study which is because of the unfair blockade which leads to poverty, poor housing, over crowding, poor water supply & expensivence of soaps & shampoo. But also this study showed that p.capitis could be seen in any one irrespcetviness to thier social status but seen more in poor & neglegted students who might be the source of infestation in the class and family.

The head louse is almost always confined to the scalp, the population

is usually small not exceeding 10 insects in 60% and exceeding 100 in only 2-5%, but in some individuals over 1000 have been found, the female lays 7-10 eggs each day during her lifespan of abuot a month[11], in our study 26.5 of the total students had few insects in their scalp, 3.75% of them has more than 100 and the remaining 5.8% of them were heavy infested table (3).

As most of the infested students were asymptomatic we advice the teachers and school doctors to include the examination of scalp hair as a part of their health care and to prevent it's transmission between the students or to their families.

Table (1): The distribution of P. Capitis of examined school

%of infested students per total	No. of infested students	No. of examined students	sex	School level	Name of examined school
%16.5	207	448	F	primary	7-Nissan
%13.9	174	307	M	primary	M-Al.Basser
%3.2	41	127	F	Secondary	Janeen
%1.2	15	97	M	Secondary	AL-Rafidan
%1.2	15	272	F	Secondary	AL-Theorah

Table (2) : % of infested students

%	No. of infested students	total	sex
%21	263	847	M
%15.1	189	404	F

Table (3) : Quentity of p. Capitis of examined students

% of total affected students	No. of affected students	quentity
% 5.8	73	much +++
% 3.75	47	med. ++
% 26.5	332	few +

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نسبة انتشار قمل الرأس لدى طلبة المدارس الابتدائية في الحلة

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الخلاصة

١٥٢١ من طلبة مدارس مدينة الحلة (٥٥٧ طلبة ابتدائية، ٦٩٤ من طلبة ثانوية) ومن كلا الجنسين شملوا في هذه الدراسة وتم فحصهم لبيان انتشار قمل الراس والامراض المسببة منه. تراوحت اعمار عينة البحث بين ٦–٢٠ سنة وبمعدل عمر ١١,٩ سنة.

لوحظ شيوع الامراض الجلدية من المسببات الحشرية المذكورة حيث كانت نسبة الاصابة ٣٦,١٣ من المجموع الكلي للطلبة المفحوصين (١٢٪ بنات ، ١٥,١ بنين) تراوحت اعمارهم بين ٦–١٨ سنة

بينت الدراسة ان نسبة الاصابة في المدارس الابتدادية اعلى منها في المدارس المتوسطة. لم يشكل الخمج البكتيري في فروة الراس نسبة مهمة وان هناك علاقة بين المستوى المعاشي (الحالة الاقتصادية) وخاصة بسبب ظروف الحصار الظالم حيث ان اهتمام العائلة تركز على الجانب الغذائي واهمل الجانب الخدمي والصحي مما ادى الى انتشار مسببات الامراض (قمل الشعر) كمطايف وسطية لكثير من الامراض الجلدية.