

child on VPA therapy. Early withdrawal of the drug offers the best hope of survival in these patients. Although data on rechallenges with VPA are sparse(7), it is currently believed that patients who manifest VPA hepatotoxicity should be managed with alternative drugs.

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## Spread of Scabies and *Pediculus Humanus* Among the Children at Sivas Orphanage

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Scabies which is caused by *Sarcoptes scabiei* is a clinical infection caught as a result of close contact with the infected person(1-3). It can be found all over the world among the age groups(3-5). It has a 30 year cycle where a dormant period of 15

years is followed by another 15 year period of epidemic(3,4).

Even though scabies was a rare disease during the 1950s(6), the scabies incidence began to increase in Europe and North America during 1960s and reached an epidemic level in 1980(2). In our country, epidemic reports have been submitted from various areas in 1970 and 1972(5,7) and the reasons behind the spread of scabies were

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also investigated in various provinces(3,8).

Lice which are divided into two genera known as *Pediculus* and *Phthirus*(9) are parasites known to mankind since the early ages(9). Even today it can be a problem in many different geographic areas and it can affect very small children also(9). *Pediculus humanus capitis* of the *Pediculus* genus is the cause of the hair of the head being infested with lice, *Pediculus humanus corporis* is the cause of human body being infested with lice and *Phthirus pubis* is the cause of groin being infested with lice(10).

It is reported that the *Pediculus humanus capitis* infestation is prevalent in western countries whereas in the third world countries both *Pediculus humanus capitis* and *Phthirus pubis* cases are increasing(11,12). Studies carried out in our country(9,10,13-15) have revealed that this is still an important subject.

In our study we have aimed at establishing whether scabies and *Pediculus capitis* infestation existed among the children at the Sivas orphanage and the extent of the spread if it existed. We have not come across a previous similar study or publication concerning the orphanage, in our city.

### Material and Methods

The study was carried out in November 1991 and children staying at the Sivas orphanage were screened. Girls and boys were screened in separate groups. After taking off their clothes all the children were screened for the vesicule perle, sillon and urticarian papules concerning scabies and their heads were searched for *Pediculus capitis* eggs, nimfs and adult parasites concerning pediculosis.

### Results

During the study, a total of 112 children

(41 girls and 71 boys) between the ages of 6-14 years (mean 9.5 yrs) were subjected to examination. The findings are shown in *Table I*. Thirty seven (33%) out of the 112 children subjected to examination had scabies and 4 (3.6%) had eggs of *Pediculus capitis*. While scabies was found among 16 of 41 girls (39%) and among 21 of 71 boys (29.6%), *Pediculus capitis* was found only among 4 girls (9.8%).

TABLE I -Prevalence of Scabies and *Pediculosis capitis*

Sex (No.)	Scabies		Pediculosis	
	No.	%	No.	%
Male (71)	21	29.6		
Female (41)	16	39.0	4	9.8
Total	37	33.0	4	3.6

### Discussion

Out of the 112 children that we screened 37 (33%), had scabies. While the study carried out in Tekirdag among the 0-61 age group. Gorgulii reported that Scabies percentage was 1.84%(16) the percentage in Kirklareli was 4.4%(17). In Umraniye area among the 0-5 age group, Gover found that Scabies percentage was 0.5%(18), in the center and environs of Denizli province among the children between 7-11 age group Yildiz detected that Scabies percentage was 0.4%(19). The percentage of 33.0% in this study is much higher than earlier reports. We believe that the major reasons for this are as follows: (i) The study was carried out in November and thick clothing was worn because of the time of the year. It is also a period when difficulties are encountered in having a bath and for general cleanliness due to the climatic conditions in this part of the country; (ii) The subjects resided in an

orphanage, and carry out all their activities together in a partnership with each other. This in fact itself is an important factor in epidemiology.

Another interesting point is the fact that new children from another orphanage in another city were brought to this center about a month previously. The health personnel of the orphanage attributed source of infection to these new children. This shows the importance of advance control amongst the newcomers to the centres of communal life.

We saw *Pediculus capitis* eggs among 3.6% of the children. The percentage is very much lower than the rate, of 16.1% and 20.8%(13,14) in Izmir and the rate of 12.7%(9) discovered in Denizli. It is, however, comparable to studies carried out among primary school children in Bursa 6%(20), Malatya 4.4%(10) and 7.5%(9) in Sivas.

We have discovered *Pediculus capitis* only among the girls as a result of our screening. As a result of other studies it is reported that *Pediculus capitis* is far more common among the girls than the boys(13,14,21,22). Some researchers have given the long hair of girls as a reason for this(19,23,24). Short-cut hair mechanically get rid of the eggs and thus it prevents self-infection of the others. It also reduces the need for treatment or it gets rid of such a need completely and ensures that the effect of parasites are even(24).

We can say that the reasons behind the low level of *Pediculosis capitis* in our study is due to the short-cut hair of the children at the orphanage, and the ease in diagnosis and treatment of this disease.

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