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☐ **Brief Communication** ☐

Head louse infestation in vagrants and children admitted to public welfare facilities, Republic of Korea

Sun HUH[1]*, Ki-Soo PAI[2]

Department of Parasitology[1], College of Medicine, Hallym University, Chunchon 200-702, Korea; Department of Pediatrics[2], College of Medicine, Ajou University, Suwon 442-749, Korea

Abstract: From December 1992 to February 1993, all vagrants and children admitted to public welfare facilities supported by the Government of Republic of Korea were examined for the presence of nit, nymph or adult of head louse. Of 36,055 persons examined, the number of positive was 7,393 (20.5%). Intensive control measures are needed to control this ectoparasitic infestation.

Key words: Head louse, epidemiology, Korea

There had been high endemicity of louse infestation in primary schools and public welfare facilities in Korea (Pai *et al*, 1989; Pai, 1992; Ree *et al.*, 1992; Huh *et al.*, 1993 & 1994). Recently, the Ministry of Health and Social Welfare tried to establish a plan for the control of head louse infestation. As the first step for the control plan, a nation-wide survey of head louse infestation in vagrants and children admitted in public welfare facilities was done. Out of social welfare facilities, those for the disabled persons were excluded. The public welfare facilities were selected for survey, since the previous data revealed the high endemic of head louse infestation in this kind of facilities. It is thought that these facilities were the source of transmission. This is a result of survey done with the help of government officials and physicians in Health Centers.

From December 1992 to February 1993, all vagrants and children admitted to all public welfare facilities supported by the Government (orphanages and houses for vagrants) were examined for the presence of nit, nymph or adult of head louse. Examination was done once by physicians or health personnels with naked eyes. Of 36,055 persons examined, the number of positive persons was 7,393 (20.5%). Infestation rates according to the age, sex, and the kind of facilities were summarized in Table 1. The rates according to the areas were summarized in Table 2. The higher rate was observed from children in orphanages. In any age group, the rate in female was higher than that in male. After the examination, the positive ones were treated with Bioallethrin (PARA™) aerosol twice by one week interval (Pai, 1992). We were not able to get the follow-up data.

For the sucessful control, the program of periodical examination and subsequent application of insecticide are essential. The orphans are brought together. They are under higher risk of being infested. They go to school where home-cared children also go to. They may become a source of infestation in school. The reverse is also possible in certain conditions. The infestation rate of 27.1% in orphanages (for children) is comparable to the infestation rate of 24.4% in 11,865 schoolchildren from 28 schools (Pai *et al.*,

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*Corresponding author, *e-mail* address: shuh@sun. hallym.ac.kr

Table 1. Infestation rate of head louse in vagrants and children admitted to social welfare facilities in Korea according to the kind of facilities and ages (1992-1993)

Kind of facilities	total		male		female	
(ages)	No. exam	No. infested (%)	No. exam	No. infested (%)	No. exam	No. infested (%)
Orphanage (0-5)	728	24 (3.3)	405	6 (1.5)	323	18 (5.6)
Orphanage (6-18)	22,026	5,967 (27.1)	12,804	3,003 (23.5)	9,222	2,964 (32.1)
House for vagrants (6-18)	2,518	59 (2.3)	1,605	34 (2.1)	913	24 (2.6)
House for vagrants (over 18)	10,787	1,343 (12.5)	6,715	722 (10.8)	4,068	622 (15.3)
Total	36,055	7,393 (20.5)	21,529	3,765 (17.5)	14,526	3,628 (25.0)

*Differences between the rate in male and that in female was compared with x^2-test in every groups ($p < 0.001$).

Table 2. Infestation rate of head louse in vagrants and children admitted to social welfare facilities in Korea according to area

Area	No. facilities	No. exam	No. infested (%)
Seoul	52	5,963	809 (13.5)
Pusan	29	5,234	1,057 (20.2)
Taegu	22	2,890	425 (14.7)
Inchon	10	1,110	82 (7.4)
Kwangju	11	1,265	414 (32.7)
Taejon	16	1,460	421 (28.8)
Kyonggi-do	33	4,206	731 (17.4)
Kangwon-do	14	867	215 (24.8)
Chungchongbuk-do	12	1,878	257 (13.7)
Chungchongnam-do	19	1,412	443 (31.4)
Chollabuk-do	22	2,168	384 (17.7)
Chollanam-do	26	3,447	1,093 (31.7)
Kyongsangbuk-do	16	1,644	331 (20.1)
Kyongsangnam-do	32	2,077	645 (31.1)
Cheju-do	6	434	86 (19.8)
Total	320	36,055	7,393 (20.5)

1989), that of 38. 6% in 2,515 schoolchildren from four primary schools (Ree *et al.*, 1992) and that of 37.2% in 912 primary schoolchildren from four schools (Huh *et al.*, 1993). In spite of the improvement of health and sanitary conditions in Korea, the endemic of head louse infestations in schoolchildren did not subside considerably. Intensive control measures are needed to control this annoying ectoparasitic infestation.

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=초록=

사회복지 시설에 수용된 부랑인과 아동에 대한 머릿니 조사

허선[1], 배기수[2]

한림대학교 의과대학 기생충학교실[1], 아주대학교 의과대학 소아과학교실[2]

1992년 12월부터 1993년 2월까지 대한민국 정부에서 지원하는 아동과 부랑인을 위한 모든 사회복지 시설에 수용된 부랑인과 아동에게서 머릿니의 서캐나 충체를 조사하였다. 총 36,055명을 조사하였고, 7,393(20.5%)이 양성이었다. 이 조사 대상에 대한 머릿니 구제를 계속할 필요가 있다.

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