

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/7686435>

The prevalence of head lice infestation in school children in Izmir, Turkey

Article in *Pediatric Dermatology* · July 2005

DOI: 10.1111/j.1525-1470.2005.22423.x · Source: PubMed

CITATIONS

16

READS

108

5 authors, including:



Ciler Akisu

Dokuz Eylul University

39 PUBLICATIONS 489 CITATIONS

SEE PROFILE



Songul Bayram Delibas

Dokuz Eylul University

39 PUBLICATIONS 328 CITATIONS

SEE PROFILE



Soykan Ozkoc

Dokuz Eylul University

42 PUBLICATIONS 341 CITATIONS

SEE PROFILE

CORRESPONDENCE

FIRST-LINE TREATMENT FOR TINEA CAPITIS

To the Editor:

In regard to the paper by Ginter-Hanselmayer et al (1), an open clinical trial describing the therapeutic response to itraconazole in the treatment of tinea capitis, caused by *Microsporum canis*, there are some points that should be considered.

The title of the paper, "Experience in a large cohort," suggests that it was an observational study and that there was no intervention. However, it was conducted as an open trial. This trial did not have a control group, so it is not possible to conclude that itraconazole is effective in the treatment of tinea capitis. The Hawthorn effect is a potential bias in uncontrolled trials and could explain the results (2). Gupta et al (3) conducted a multicenter randomized, single-blinded, nonindustry-sponsored trial and showed that terbinafine, itraconazole, and fluconazole had efficacy similar to that of griseofulvin in the treatment of tinea capitis. However, tinea caused by *Microsporum* sp. was not investigated in that study.

In developing countries such as Brazil, where the prevalence of this disease is high, griseofulvin might be the choice for treatment because of its efficacy and cost, as it is much cheaper than itraconazole. Therefore, we need more convincing evidence of effectiveness, adverse effects, and even costs, in order to encourage us to change our first-line treatment for tinea capitis.

REFERENCES

1. Hanselmayer GG, Smolle J, Gupta A. Itraconazole in the treatment of tinea capitis caused by *Microsporum canis*: experience in a large cohort. *Pediatr Dermatol* 2004;21:499–502.
2. Fletcher RH, Fletcher SW, Wagner EH. *Epidemiologia clínica*. Brazil: Artes Médicas, 1996.
3. Gupta AK, Adam P, Dlova N, et al. Therapeutic options for the treatment of tinea capitis caused by *Trichophyton* species: griseofulvin versus the new oral antifungal agents, terbinafine, itraconazole, and fluconazole. *Pediatr Dermatol* 2001;18:433–438.

EDUARDO S. DIEHL, M.D.
VANESSA S. CUNHA, M.D.
FERNANDA M. FREITAG, M.D.
REGIS KREITCHMANN, M.D.
SANDRA C. FUCHS, M.D.
Porto Alegre, Brazil

REPLY TO DIEHL

To the Editor:

In our paper we reported our experience with itraconazole in *Microsporum canis* infection of the scalp. To

our knowledge, the Hawthorn effect can be defined as a positive research outcome occurring because of modification of behavior by subjects or researchers rather than a true effect of the research intervention. Although the Hawthorn effect can have significant impact on some research results, there are few behaviors that subjects or researchers can modify that would lead to increased cure of scalp fungal infection. Spontaneous cure of scalp infection is unlikely, and topical treatment has historically been ineffective. The measured outcome required both clinical resolution of symptoms and negative mycologic findings (microscopy and culture), leaving little potential for researcher bias in evaluation of a "cure." None of these reasons could explain the high cure rate noted during our study. One possible modification would be increased subject compliance with the treatment regimen; however, this would not alter the fact that itraconazole use is related to a positive effect on outcome. Furthermore, as one-third of our patients had been treated previously with terbinafine and not demonstrated high success rates, itraconazole appears to have some true, reliable effect on tinea capitis infection beyond any potentially operating Hawthorn effect.

We would also emphasize the fact that one-third of our patients had previous treatment with terbinafine without success and that this may suggest that the choice of drug is important in treating *M. canis* infection. However, increased dosing of terbinafine may provide for more comparable success rates. These issues are, of course, open to debate and will require confirmation in randomized trials focused on *M. canis* infection.

Because we had no control group treated with griseofulvin, we cannot state which of the two drugs might be more cost effective. This clinical trial was conducted without any industrial support, and was therefore performed as an open trial. Although griseofulvin is the gold standard in antimycotic treatment in many countries, this agent has not been available in Austria for many years, and therefore European dermatologists must focus their attention on the new antimycotics.

GABRIELE GINTER-HANSELMAYER, M.D.
JOSEF SMOLLE, M.D.
Graz, Austria
ADITYA GUPTA, M.D., Ph.D., F.R.C.P.C.
London, Ontario, Canada

THE PREVALENCE OF HEAD LICE INFESTATION IN SCHOOL CHILDREN IN IZMIR, TURKEY

To the Editor:

Head lice infestation is a common public health problem of elementary school children in Turkey; however,

few data are available (1,2). We set out to determine the prevalence of head lice infestation and to evaluate the data on the demographic profile among affected school children in Izmir, the largest city in the Aegean region of Turkey. All of 1569 schoolchildren, aged 7 to 14 (9.6 ± 1.6) years, were examined for the presence of *Pediculus capitis*, adult lice, nymphs or nits, by visual inspection. Eight hundred twelve (51.8%) boys and 757 (48.2%) girls were enrolled. Sociodemographic data collected included age, sex, type of family, number of siblings, educational level of parent, business of parent, and monthly income. Data were analyzed using the Chi-squared test. The overall infestation rate was 16.6%. Head lice were more prevalent in girls (31.8%) than boys (2.5%) (OR: 18.56, 95% confidence interval: 11.61–29.68, $p < 0.0001$). Girls were at a greater risk for head lice because of their tendency to have longer hair than boys and to have greater physical contact than boys (3). Although there was no statistical difference among age groups, the infestation rate increased as the age increased, especially after ages 9 to 10. However, the infestation rate in girls aged 13 to 14 years was determined to be the highest (41.9%), and found to be significantly different ($p < 0.05$). The highest prevalence rate (28.2%) was shown in an outskirts area of the city ($p < 0.001$; degrees of freedom: 27.702). Additionally, the prevalence of head lice for girls in this area was significantly higher than for girls in other areas ($p < 0.001$). We observed a negative relationship between parent's education level and head lice infestation (father's; OR: 1.45, 95% CI: 1.09–2.13, $p < 0.05$, mother's; OR: 0.96, 95% CI: 0.64–1.43, $p < 0.01$). These results might show that improvement of educational level is essential to decrease the prevalence of head lice infestation. In addition, we showed that the occurrence rate of head lice was significantly higher in children of unemployed fathers (OR: 0.71, 95% CI: 0.51–0.99, $p < 0.01$). In Turkey, a father without a job frequently belongs to a lower socioeconomic class. In all probability, this state may result to an increase in head lice prevalence. Irrespective of the father's job status, an increase in head lice prevalence was detected in children of mothers who were employed (OR: 1.51, 95% CI: 1.10–2.08, $p < 0.01$). In our opinion, these mothers may be extremely busy and might neglect to look for lice routinely. No differences were found in the type of family and number of siblings, two important parameters reflecting household density, and financial status of the family between infested and noninfested groups ($p > 0.05$). Our data have demonstrated that the prevalence of head lice is high in Izmir, Turkey. Sex, parent's education level, and employment are important factors affecting the probability of head lice infestation. Of course, installing necessary educational programs and preventive measures, establishing

cooperation between school authorities and the public health center, and encouraging parents to look for lice routinely may be helpful in successfully reducing head lice infestation in the school setting.

REFERENCES

1. Inanir I, Sahin MT, Gunduz K, et al. Prevalence of skin conditions in primary school children in Turkey: differences based on socioeconomic factors. *Pediatr Dermatol* 2002;19:307–311.
2. Kokturk A, Baz K, Bugdayci R, et al. The prevalence of pediculosis capitis in schoolchildren in Mersin. *Turkey Int J Dermatol* 2003;42:694–698.
3. Downs AM, Stafford KA, Stewart GH, et al. Factors that may be influencing the prevalence of head lice in British schoolchildren. *Pediatr Dermatol* 2000;17:72–74.

CILER AKISU, M.D.
 UMIT AKSOY, M.D.
 SONGUL BAYRAM DELIBAS, M.D.
 SOYKAN OZKOC, M.D.
 SERAP SAHIN, M.D.
 Izmir, Turkey

MICROCEPHALY–LYMPHOEDEMA– CHORIORETINAL–DYSPLASIA SYNDROME WITH ATRIAL SEPTAL DEFECT

To the Editor:

Combinations of microcephaly and lymphoedema, as well as microcephaly and chorioretinopathy, have been well described (1,2). In 1992 it was suggested these two entities represent a single syndrome, microcephaly \times lymphoedema chorioretinal dysplasia (MLCD) (3). It is thought to be a single genetic entity with variable expression and, to date, fewer than 25 patients have been reported. The condition is characterized by microcephaly (Fig. 1), lymphoedema of the upper and lower limbs (Fig. 2), chorioretinal dysplasia, and normal or near-normal intelligence (4). Most occurrences are familial with either autosomal dominant, or recessive inheritance (4). A few sporadic instances have also been described (3,5).

We report a child born at term as the fourth son to a healthy, nonconsanguineous couple in their forties. The pregnancy had been uncomplicated, with no maternal infection, exposure to alcohol, nicotine, or other drugs. Ultrasound at 20 weeks had shown "thick calves." No other family members showed features of MLCD.

At birth, the neonate's length (52 cm) and weight (3460 g) were at the 75th and 50th centile, respectively. Head circumference (31.2 cm) was beneath the 0.4th centile, consistent with microcephalus. He had moderate lymphoedema of all four limbs. Psychomotor development, assessed at 3, 6, and 12 months was normal. Ophthalmologic examination showed multiple punched out lesions