

# **A RESISTANCE OF HEAD LICE (*Pediculus Capitis*) TO PERMETHRIN IN CZECH REPUBLIC**

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## **SUMMARY**

An outbreak of pediculosis at primary schools was recorded in the Czech Republic in 1992. Almost 20 % of children in some schools were infested. This outbreak can be attributed to the resistance of head lice to permethrin, which has not been mentioned in literature yet. The resistance factors established in three towns range between 2 and 385 and between 5 and 557 for LC<sub>50</sub> and LC<sub>90</sub> values, respectively. This resistance has developed after exclusive use of pyrethroids lotion and shampoo in the Czech Republic since 1978, and it was accompanied by a cross-resistance to d-phenothrin and bioallethrin. But the susceptibility of head lice to malathion and pirimiphos-methyl in 1992 was very similar to that found in 1981.

The lotion containing 0.3 % of malathion (Diffusil H92 M) has been fully effective against the resistant lice. When introduced into the practice, it quickly reduced the infestation of children in primary schools. The other lotion and shampoo containing 0.3 % and 0.7 % of pirimiphos-methyl respectively were found to be effective as well.

*Key words:* control of head lice, *Pediculus capitis*, resistance to permethrin

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