

Oral Presentation

WET COMBING VERSUS TRADITIONAL SCALP INSPECTION AS A DETECTION METHOD FOR LICE INFESTATION IN SCHOOL CHILDREN

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Background: Lice infestation is a major problem in local communities. The wet-combing method is an alternative for the classical head inspection method as being cheap, ecologically correct, self-sufficient and feasibly. However it's efficacy as a diagnostic tool has not been proven yet.

Aim: To compare the diagnostic performance of the classical scalp inspection method and the wet combing method to detect an infection with headlice.

Methods: Blind, double screening of all the children from a primary school in a deprived area of Ghent (Belgium). 224 children, aged 2-12 years, were screened with both inspection methods.

Results: 49 children were found positive and 175 children were found negative with the wet combing method of whom respectively 32 children and 161 children with the traditional scalp inspection method. 14 children were found positive with the classical scalp inspection method and negative with the wet combing method. These children were re-inspected 15 days later. One of them reported developing symptoms and was indeed infected. There were no spontaneous reports of infestation among the double negative children.

The point prevalence of lice measured with the wet combing method was 21.9% (16.5-27.3; 95%CI). A Kappa value of 0.59 was found (0.46-0.72; 95%CI). Assuming that the wet combing method is the gold standard, the positive predictive value of the classical scalp inspection method is 0.70 (0.54-0.82; 95%CI) and the negative predictive value 0.90 (0.85 –0.94; 95%CI).

Conclusions: Traditional scalp inspection seems to be an inferior screening method for head lice detection as 30% of its positive results and 10% of its negative results are false. Too many children not infected with lice get unnecessary treatment and too many infections escape detection, jeopardizing the control of an epidemic.