DENTAL FLUOROSIS AMONG THE SCHOOL CHILDREN AGED 6–12 YEARS IN LAMPHUN PROVINCE

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Abstract

A policy of water provision for the population in Thailand has resulted in bringing a developmental disturbance of dental enamel, dental fluorosis in specific area. Lamphun is one of the northern provinces which ground water has found fluoride concentration higher than 3.0 mg/l. The objective was to study the prevalence and severity of dental fluorosis, the pattern of water consumption and fluoride concentration in drinking water among the school children aged 6-12 years. This study was conducted in January-May 2018. The subjects (n=218) were student the school in Lamphun. Samples of drinking water were collected and their fluoride concentration determined using the standard method. The presence of dental fluorosis was examined by dental nurse. The data were analyzed statistically. The results showed that bottled water was drunk by 83.9% of the subjects and piped water, fluoride concentration higher than 0.70 mg/l was 88.9%. Unsafe water(fluoride concentration higher than 0.70 mg/l) was drunk by 53.9% of the subjects. The prevalence of dental fluorosis in children was 47.2%. The distribution by number and percentage of these defects in the school of Ban Longnonghoi, Ban Changkaownoi, Wat Bankong and Ban Pasang was 29(80.6 %), 24(53.3 %), 22(40.7 %) and 28(33.7 %) respectively. The results can be planned to educate people about fluoride in drinking water to get the right information. Thailand needs a law to ensure that only safe water can enter the piped water system. Adequate information and recommendations will help people themselves to make decisions and prevent risks from high fluoride in drinking water. Strategic plans and public awareness campaigns on health impact due to fluoride in drinking water should be implemented. In addition, the routine surveillance of water quality is also crucial.