

Abstract:

The present longitudinal study was conducted on ten children from age 5-6 years to determine the post-eruptive enamel changes of fluorosed permanent incisors. The children were born and reared in an area of Kenya with a water fluoride level of 14-45 parts per million. The incisors were examined and photographed periodically from the time of eruption over a period of 2 1/2 years. It was noted that the fluorosed incisor was intact as it erupted and then it underwent a variety of changes. In some there was mechanical breakdown (pitting) of the chalky white enamel which occurred rapidly initially and then the breakdown slowed down by 2 years. In others, there was smoothening of the pitted enamel resulting in a translucent appearance. Alternatively there was some degree of patchy staining of the enamel without surface breakdown. Much of the cervical 1/3 of the enamel remained intact even in teeth with severe breakdown. In most cases, these changes were bilaterally symmetrical. The possible reasons for these changes are discussed