

Excessive fluoride content in commonly used dentifrices on the Kenyan market.

Mwaniki, DL; Opinya, GN

Abstract:

About one decade ago, a heated debate on the appropriateness of fluoride dentifrices in Kenya culminated in the introduction of no-fluoride brands. Analysis of dentifrices that were available on the market in 1989/1990 confirmed two distinctly different categories, the fluoride and the low or no-fluoride types. Among the former, the mean ionic fluoride concentration ranged between 0.4 and 1.36 mg/g while the total fluoride concentration ranged between 1.15 and 114.68 mg/g. The low or no-fluoride dentifrices had less than 0.03 mg/g ionic fluoride and less than 2.14 mg/g total fluoride. The mean abrasive (powder) content ranged between 26.5 g% and 78.5 g%. The gel categories had markedly lower powder values than the pastes. The ash values of the powders ranged between 15.8 g% and 85 g% and did not have an obvious relationship with the powder content. Despite the obvious risk of increasing exposure to excessive fluoride among children, presently, the situation has reverted to the pre-debate time. Given the ubiquitous nature of ingestible fluoride in the region, provision of guidelines and guidance on the sale of dentifrices by the government and consumer organisations, and increased accountability of the manufacturers are recommended.