Dentifrice Associated Slough

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Purpose: Dentifrice associated slough is a condition associated with the use of several different types of toothpaste. It is an asymptomatic, superficial peeling of the oral mucosa. A pilot study was conducted to determine what brands or types of toothpaste or what particular ingredient in the toothpaste may be responsible for this sloughing. The study also helped identify products available for those who suffer from dentifrice associated slough, and the possibility of sloughing leading to more serious problems.

Methods: The pilot group consisted of a small convenience sample of two dental hygiene students, both sufferers of dentifrice associated slough. Each participant used a different type of toothpaste, both ADA and non-ADA approved, every 48 hours and recorded any results. The results were recorded from a range of no sloughing to severe sloughing. Overall fifteen different brand or types of toothpaste were tested. Both participants were also asked to write down any type of parafunctional activity that the sloughing may be causing, such as lip and cheek biting, to determine the possibility of more serious problems.

Results: The results of this study were determined by comparing the data presented by both participants. Both participants reported similar results for each brand or type of toothpaste. The results were then charted from least amount of sloughing to most in two separate charts for ADA and non-ADA approved dentifrice. Both participants also reported repeatedly chewing their cheeks and lips to remove the slough.

Conclusion: After comparing ingredients in all of the samples of toothpaste, the culprit seemed to be the foaming agent, sodium lauryl sulfate. By comparing the amount of sodium lauryl sulfate in each type of toothpaste with the sloughing chart, it was determined that as that sloughing increased, the amount of sodium lauryl sulfate also increased. By researching information about cheek and lip biting, it was determined that this can lead to hyperkeratinization, which with repeated exposure can become malignant. This study was conducted to provide an alternative for those who suffer from dentifrice associated slough. By switching to toothpaste with less sodium lauryl sulfate the participants were able to eliminate their sloughing problem. Further studies are needed with a more reliable sample size to determine the causes of dentifrice associated slough.