

A Sweet Solution: The Use of Medical-Grade Honey on Oral Mucositis in the Pediatric Oncology Patient

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Introduction

Pediatric patients develop mucositis when receiving treatments such as chemotherapy and radiation. The gastrointestinal mucosa's epithelial cells divide quickly leading to breakdown and painful ulceration. Oral mucositis is the most common in which patients developed painful bleeding ulceration and thick mucoid saliva. Lips eventually crack and bleed. Mouth rinses containing antimicrobial, antihistamine and analgesic medications are the mainstay for pediatric patients. These rinses are often rejected related to taste or texture. Patients less than a year are unable to use these products. Continued oral mucositis leads to increase pain and inability to eat.

Problem

Oral mucositis results in decreased nutritional intake and deteriorating oral hygiene. Patients may refuse or are unable to use the standard treatments leading to the search for alternatives. The goal was to improve oral comfort and ultimately improve nourishment.

Procedure

Patients were chosen based on the presence of oral mucositis after chemotherapy. There were no exclusions related to age or type of cancer. *Leptospermum honey** paste was applied after oral care three times daily with sponge swab. Patients swished and spit or had excess suctioned out. Application process was age dependent; infants and patients of higher acuity required more assistance.



Results

Case 1: 17 year old patient with oral mucositis related to chemotherapy. Lips crusted black with dry blood and large mouth ulcers on tongue, gums and inner cheeks. Standard oral care refused. *Leptospermum honey** paste applied three times per day with sponge applicator after oral care.



Day 1



Day 5

Case 2: 9 year old oncology patient with oral mucositis related to chemotherapy. Lips crusted black with dry blood and large mouth ulcers on tongue, gums and inner cheeks. Intubated. *Leptospermum honey** paste applied three times per day with sponge applicator after oral care.



Day 1



Day 5

Case 3: 9 month old patient with oral mucositis related to chemotherapy. Lips crusted black with dry blood and large mouth ulcers on tongue, gums and inner cheeks. Standard mouth rinses were not an option related to age. Frequent pacifier use, no oral intake. Oral care with water and gauze. Staff placed petroleum jelly on pacifier and lips. Patient began to refuse pacifier. *Leptospermum honey** paste applied three times per day to pacifier. Patient displayed minimal discomfort, took pacifier easily. Within 48 hours, staff noted decrease in crusting to lips and within 3 days patient began drinking clears. At 5 days no signs of oral mucositis were present. *No photos available.*

Implications

This product is not promoted as an oral medication, however, the efficacy of use has been shown in adult patients with oral mucositis. Clinical trials should be considered to examine whether or not chemotherapy induced oral mucositis resolves more quickly with *Leptospermum honey** paste versus other mainstay treatments. Further studies are needed to assess if the *Leptospermum honey** paste could be beneficial with other types of pediatric oral mucositis including patients with Stevens-Johnson Syndrome or herpetic oral lesions. Protocol development would be needed with the next phase to prevent over and incorrect use.

Conclusion

Ten patients were observed overall. Many preferred the honey paste, and would request its use. Those patients that opted to return to standard treatment did so related to texture of the paste. The *Leptospermum honey** paste was found to be easy to apply, well received, and an effective alternative for oral mucositis.

References

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