

## **MANAGEMENT OF ORAL MUCOCELES: A COMPARATIVE STUDY OF SURGICAL EXCISION VS CRYOTHERAPY**

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Mucocele is a common, benign, mucus-containing cystic lesion of the minor salivary glands in the oral cavity. Presently three different treatment modalities are available for the management of mucoceles namely surgical excision, cryotherapy and laser. To the best of our knowledge there are no reports which have compared the outcome of these different treatment modalities. The objective of this study was to assess and compare the effects of two different treatment modalities for the management of mucoceles: cryotherapy and surgical excision.

Thirty-seven patients, who attended the Oral Medicine clinic, Faculty of Dental Sciences, University of Peradeniya with oral mucoceles were included in this study. The diagnosis was arrived on clinical grounds. Data pertaining to age, gender, size of the lesion, site of affliction duration, previous history of the same complaint and associated symptoms such as pain were recorded for each patient. Patients were randomly allocated to the two different treatment groups and were reviewed weekly after treatment for a period of one month.

The sample consisted of 20 males (54%) and 17 females (46%). The mean age of the sample was 17 years with a range of 6 to 32 years. Mucoceles were common in the age group below 20 years (62.2%). The commonest site of affliction was the lower lip (81.1%). Eighty one percent of the lesions were less than 1 x 1 cm in size and 62% of the patients did not have a previous history of such lesions. Eighty one percent of the patients were asymptomatic. Of the 37 patients, 21 were treated using cryotherapy (cryo-probe) and 16 with surgical excision. Of the 21 patients treated with cryotherapy, 16 had no complications whilst 11 out of the 16 patients treated with surgery excision of the lesion, had no complications one week after treatment. The difference between groups was not statistically significant ( $\chi^2=2.55$ ,  $df=1$ ,  $p=0.614$ ). Of the 5 patients who had complications after cryotherapy, one patient had a non-infected ulcer and 4 patients encountered lip swelling. Of the 5 patients who had complications after surgical excision, 2 had infected ulcers and three had pain in the surgical site. Four patients who underwent surgery and one patient who was subjected to cryotherapy had experienced recurrence during the follow up period. However, there was no statistically significant difference in terms of recurrence between the two treatment groups ( $\chi^2=3.18$ ,  $df=1$ ,  $P=0.07$ ).

This study revealed that cryotherapy is equally effective as surgical excision in the management of oral mucocele. However, because of the non-invasive and less cumbersome nature of the technique, cryotherapy may be considered as the modality of preference especially for young children.