Abstract No: 613 ***Health and Hygiene***

USE OF CEPHALOMETRY IN THE EVALUATION OF CHANGES IN THE VELUM IN PALATAL LENGTHENING SURGERY BY THE BUCCINATOR MYO-MUCOSAL FLAP PROCEDURE

R.D. Jayasinghe[1]*, J.U.Weerasinghe[2] and P. Wijekoon[2]

[1]Division of Oral Medicine and Radiology, Department of Oral Medicine and Periodontology, Faculty of Dental Sciences, University of Peradeniya, Sri Lanka
[2]Department of Oral and Maxillofacial Surgery, Faculty of Dental Sciences, University of Peradeniya, Sri Lanka
**ruwanduminda@yahoo.com*

The Buccinator Myo-Mucosal (BMM) flap procedure which involves insertion of a posteriorly based pedicled BMM flap with an island of buccal mucosa, into a linear defect created in the velum, is indicated for lengthening of the velum in patients with incomplete soft palates. However, quantitative evaluation of success of the BMM flap using lateral cephalometry has not been reported in the literature. The objective of this study was to identify the usefulness of cephalometry in the evaluation of changes in the velum, in palatal lengthening surgery using the BMM flap procedure.

During the period June 2011 to May 2013, the BMM flap procedure has been performed in the treatment of previously repaired soft palates of 10 individuals. The length of the velum measured from the Posterior Nasal Spine (PNS) to the most distal point, the maximum width/thickness of the velum and the shortest distance between the pharynx and velum were measured in all subjects preoperatively using calibrated lateral cephalometry. These measurements were repeated after one year post-operatively.

Cephalometric measurements obtained showed that differences of mean values of pre and post operative measurements of velum length (19.9+/-1.9 and 29.4+/- 2.6) mm, velum thickness (5.2+/- 1.03 and 11.7+/- 2.45) mm and Velo-Pharyngeal Distance (12.2+/- 1.9 and 5.5+/- 1.9) mm all recorded P values of < 0.0001, which were extremely significant.

The BMM flap procedure was found to be very useful in the treatment of patients with previously incompletely repaired and mobile cleft palates. Ceophalometric findings showed statistically significant improvements of mean values between pre-operative and post-operative recordings in length and thickness of the Velum and velo-pharyngeal distance. This is the first time that this technique has been used for the evaluation of BMM flap operative procedure and the results obtained clearly showed the usefulness of the technique. This series of patients will need to be further followed up at yearly intervals and possibly in a larger study group which might strengthen the results of this study.

Financial assistance given by the University of Peradeniya (RG/2011/18/D) is acknowledged.