

## ***0556 Saliva Profile after Intensity-modulated and Conventional Radiotherapy for Nasopharyngeal Carcinoma***

[E.H.N. POW](#), A.S. MCMILLAN, W.K. LEUNG, M.C.M. WONG, and D.L.W. KWONG, University of Hong Kong, Hong Kong

Salivary hypofunction is the major oral complication of radiotherapy to the head and neck. Intensity-modulated radiotherapy is a novel technique which can spare the salivary glands from radiation damage. Objective: To compare the short term quantitative and qualitative changes in saliva of nasopharyngeal carcinoma (NPC) patients receiving conventional radiotherapy (CT) and intensity-modulated radiotherapy (IMRT). Methods: This is a randomized clinical trial. Evaluation points were just prior to, then 2 and 6 months after treatment. 22 newly diagnosed southern Chinese NPC patients (18 males, 4 females, mean age 48 10 years) were randomized to either CT or IMRT limbs of the study. Both subject and examiner were blinded to the treatment regimen. At the 3 time points, saliva flow, pH and buffer capacity (BC) of stimulated whole (SWS) and parotid saliva (SPS) were measured. Wilcoxon signed ranks, Mann-Whitney and Chi-square tests were used to compare changes over time and between groups. Results: At 2-month recall, all subjects had significant reduction in SWS and SPS flow and SWS pH ( $p < 0.01$ ). At 6-month recall, significant recovery was observed in SWS flow of the IMRT group ( $p < 0.01$ ). The IMRT group had significantly greater SPS flow at both 2 and 6-month recalls compared with the CT group. The SWS buffering capacity was impaired in both groups after radiotherapy. No difference was found in SWS pH between groups throughout the study period. Conclusions: Preliminary results indicate that salivary gland function was markedly less impaired after IMRT although qualitative changes in saliva profile were similar for both radiotherapy techniques. Supported by CRCG-HKU

[Seq #66 - Oral & Maxillofacial Pathology / Wound Healing Posters](#)

11:00 AM-12:15 PM, Thursday, 26 June 2003 Svenska Massan Exhibition Hall B

[Back to the Oral & Maxillofacial Surgery Program](#)

[Back to the 81st General Session of the International Association for Dental Research \(June 25-28, 2003\)](#)