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## Marginal gap evaluation of metal onlay and Resin Nano Ceramic (RNC) (LAVA™ Ultimate CAD/CAM Blocks) onlays

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This study is to assess and compare the marginal gap of metal based on onlay and nano resin ceramic (Lava™ Ultimate block) onlay. The study was carried out *in vitro* on two extracted lower sound human mandibular molars. One extracted tooth was prepared to receive a metal onlay and another one for RNC (Lava™ Ultimate) onlay, which was fabricated using CAD/CAM technology. After fabrication of 12 metal and 12 ceramic onlays, marginal analysis was done under Leica stereomicroscope (Leica, Germany). The gap width was measured at 10 defined landmarks which include three points on the buccal and lingual surfaces and two points on the mesial and distal surfaces. Mann-Whitney Test was used for statistical analysis ( $P=0.05$ ). It was observed that overall RNC onlays (Lava™ Ultimate block) showed significant lower marginal gap measured with the exception of the landmark 5 and 6 at disto-lingual site. Landmarks 7 at mid-lingual site showed no significant difference between both groups. It was concluded that, the marginal gap observed were all within the clinically acceptable limit ( $120\text{ }\mu\text{m}$ ). Based on the results obtained, the resin nano ceramic onlays (Lava™ Ultimate block CAD/CAM) can be one of alternative materials for the metal onlay in term of marginal gap.

### Biography

Wan Zariyah Wan Bakar is a Senior Lecturer and Consultant Prosthodontist at University Sains Malaysia, Malaysia. She has completed her Doctorate in Clinical Dentistry (Prosthodontics) at University of Adelaide, Australia in 2006. She has completed her Post-doctoral Research Fellow program from University of Texas Health Science Center at San Antonio (UTHSCSA), USA in 2013. She has published more than 30 articles.

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