



Int J Oral Maxillofac Implants.
2007 Nov-Dec;22(6):879-85.

“A classification system to measure the implant-abutment microgap.”

Kano SC, Binon PP, Curtis DA.

Traduzione in italiano a cura Bone System del Titolo e dell'Abstract, tratti dalla pubblicazione indicata, alla quale si rimanda per una visione integrale e per ogni approfondimento.

Abstract

PURPOSE: A large microgap at the implant-abutment interface has been reported to result in adverse effects, including screw loosening, abutment rotation, and abutment fracture. However, a standardized classification of the implant-abutment interface has not been established. The purposes of this investigation were (1) to propose a classification system based on the horizontal and vertical microgap of the implant-abutment interface and (2) to compare the implant-abutment interface in 4 groups of abutments. **MATERIALS AND METHODS:** Forty-eight randomly selected external hexagonal implants were paired with (1) machined titanium abutments, (2) premachined palladium abutments cast-on with palladium alloy, (3) plastic burnout abutments cast with nickel chromium alloy, and (4) plastic burnout abutments cast with cobalt chromium alloy. A comparison of the horizontal and vertical microgaps at the implant-abutment interface was completed at 8 locations on each specimen to the nearest micrometer using an optical microscope with a magnification of 150x. Group means and significant differences between groups were determined by analysis of variance and Tukey multiple-comparisons post-hoc analysis. $P < .05$ was the threshold for statistical significance. **RESULTS:** There was no significant difference between groups with respect to vertical misfit. For horizontal misfit, machined titanium abutments presented significantly higher horizontal misfit compared to other groups ($P < .001$). Premachined cast-on abutments had significantly higher horizontal misfit than cast NiCr abutments ($P < .001$). In the proposed classification system, 23% of all sites measured at the implant-abutment interface had an ideal relationship, 34% had a horizontal discrepancy only, 4% had a vertical discrepancy only, and 39% had both vertical and horizontal discrepancies. **CONCLUSION:** The proposed implant-abutment classification system demonstrated a way to characterize and compare the microgap at the implant-abutment interface.

“Un sistema di classificazione per misurare il microgap fra impianto e abutment”

Riassunto

N. D.,