

### A 5-year Straumann® TPS and SLA dental implants bone level evaluation: results from a private practice

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The long term success of implant treatment relies on the presence and maintenance of bone adjacent to implants (Wyatt and Zarb, 2002). The aim of this clinical study was to evaluate radiographic proximal crestal bone level changes (Bragger et al., 1998, Fransson et al., 2005) around two different rough implant surfaces: titanium plasma-sprayed (TPS) and sandblasted and acid-etched (SLA) surfaces. Factors such as smoking, implant location (maxillary or mandibular), crown-to-implant ratio were also assessed for their influence on bone loss. Ninety six implants supporting fixed prosthesis were placed in 46 patients. Radiographs were taken before implants were loaded (Weber et al., 1999) and 5 years later using the long cone technique. They were analyzed by two different observers (Grondhal et al., 1998) who measured the marginal bone level change on the treated implant surface. Mean value of crestal bone loss (CBL) was then calculated for each implant and divided into three groups: (a) CBL>3mm, (b) 3mm>CBL>1mm, (c) 1mm>CBL>0, and (d) bone gain.

9.38% of the implants belonged to group (a), 28.13% to group (b), 44.79% to group (c) and 17.71% to group (d). The mean bone loss for the 96 implants was  $0.95 \pm 1.18$  mm. The difference in bone loss between TPS and SLA implants was statistically significant (Student T test  $p < 0.01$ ) with mean bone losses of 1.37mm for TPS surface and 0.54mm for SLA surface. None of the other studied factors showed significant correlation with bone loss (ANOVA analysis). However, positive correlation was observed between tobacco, TPS surface, crown-to-implant ratio >1 and bone loss. Mandibular location alone

seems to affect only slightly the bone loss, however, a combination of TPS surface and mandibular location greatly increased bone loss. The combination of mandibular location and tobacco factors also led to increased bone loss. When the three factors were present (tobacco, TPS surface and mandibular location), bone loss value was the highest. Most of implants in (a) belonged to smoker patients (18.18% compared to non smoker patients 6.75%), had a TPS surface (18.75% compared to SLA surface 0%) and were located in mandibular site (12% compared to maxilla 6.52%). Implants in (d) belonged mostly to non-smoker patients (20% compared to smoker patients 9%) and exhibited a crown implant ratio >1 (19.3%).

SLA surfaced implants cause less crestal bone loss than TPS surfaced implants. Tobacco, implant location and crown-to-implant ration may influence bone loss, further research is warranted. The long-term evolution of CBL observed on rough surfaced Straumann® implants corresponds to that observed on machined implants (Jemt et Lekholm, 1993), with significant differences within the 2 different rough surfaces. The identification of factors influencing crestal bone loss permits a better consideration of the potential risk factors in implant treatment.

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### La maladie de Kahler ou myélome multiple : à propos d'un cas

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La maladie de Kahler ou myélome multiple se définit comme étant une prolifération maligne monoclonale des cellules plasmocytaires, dans la moelle osseuse, avec ou sans passage dans le sang (Cousty et coll., 2005). Les plasmocytes néoplasiques produisent de grandes quantités d'Ig monoclonales IgG, IgA ou plus rarement IgD que l'on retrouve dans le sérum. Cette maladie concerne essentiellement le patient âgé.

Le cas présenté est celui d'une patiente âgée de 64 ans, adressée par son chirurgien dentiste pour une tumeur mandibulaire évoluant depuis 4 mois. L'interrogatoire révèle que la patiente présente un diabète non-insulino-

dépendant, non équilibré ainsi qu'un antécédent d'extraction d'une molaire alvéolaire, suivie de l'apparition d'une tuméfaction non douloureuse sur la crête mandibulaire. L'examen exobuccal montre l'absence d'asymétrie et d'adénopathie. A l'examen endobuccal, on retrouve une tuméfaction siégeant au niveau de la crête mandibulaire gauche, recouverte par une muqueuse présentant l'empreinte de la molaire supérieure, sans ulcération, molle à la palpation. On note également l'absence de la 37 et une mobilité de 35 et 36 qui sont vivantes. La radiographie panoramique montre une image polygéo-dique mixte sur la crête mandibulaire gauche mais éga-