

## **PC-I-12. Retrospective clinical study on the ITI TE<sup>®</sup> implant system: 4 years follow-up study**

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### Background

Recent study shows that implant design and form has a great impact on initial stability in bone. The ITI TE<sup>®</sup> implant, designed originally for immediate placement or rescue of failed implant has a tapered/ cylindrical form which fits the anatomical shape of the natural alveolous or tooth root. The increased diameter at the collar region coupled with more threads lead to more bone contact and enhanced stability.

The objectives of this study were to evaluate the clinical use and the efficacy of recently introduced ITI TE<sup>®</sup> implant with a new macro-design.

### Materials and methods

The following results are compiled from 139 patients who received ITI TE<sup>®</sup> implant surgery at the department of periodontology, dental hospital of Yonsei university, Seoul, South Korea between July 2002 and September 2005. Life table analysis with cumulative survival rate (CSR, %) at 1-4 years were calculated and the criteria proposed by Buser et al. and Cochran et al. were evaluated.

### Results

1. 139 patients received 173 ITI TE<sup>®</sup> implants in their maxilla and mandible (Mx 82, Mn 91). Posterior area accounted for 84% of the whole implant surgery.
2. In the distribution of bone quality, type III(41.0%) was the most, followed by type IV(41.0%) and type II (27.7%). As for the bone quantity, type B(43.9%) was the most, followed by type C(42.2%), type D(12.2%) and type A(1.7%).
3. In the length and diameter, 10 mm (48.0%) and 12mm(50.3%) lengthwise and 4.8/6.5mm(70.5%) in terms of diameter had the highest percentage.
4. 26 implants out of 82 implants in the maxilla were used in sinus floor elevation. 11 implants were used with guided bone regeneration.

5. 125 implants(83.9%) were treated by single crown, which accounted for the majority.
6. The total CSR was 100% after a mean follow-up period of 21.2 months.

### Conclusion

This preliminary data with ITI TE<sup>®</sup> implant showed excellent survival rate although the majority of implants evaluated in this study were placed in the posterior region of the jaw and compromised sites. From the results, it can be mentioned that a successful result can be expected as "rescue implant" after immediate implant right after extraction and when the bone quality and quantity is poor. Studies on immediate implants and long-term studies including radiographic analysis seem to be necessary.