

Strength evaluation was accomplished by using a universal testing machine (Instron).

The marginal fitness test was measured by using the stereoscope ($\times 50$).

The results were as follows. :

1. The fracture strength according to the materials was significantly decreased in order In-Ceram(238.81 ± 82), Targis-Vectris(176.25 ± 18.93), Sculpture-Fibrekor(120.35 ± 20.08) bridges. ($P < 0.05$)
2. FRC resin bridges were not completely fractured, while In-Ceram bridges were completely fractured in the pontic joint.
3. The marginal accuracy according to the materials was significantly decreased in order of Targis-Vectris($60.71 \mu\text{m}$), Sculpture-Fibrekor($73.10 \mu\text{m}$), In-Ceram bridge($83.81 \mu\text{m}$) ($P < 0.001$).
- 4 The fitness of occlusal sites had a lower value than marginal site. ($P < 0.001$), and the marginal gaps of near the pontic were greater than that of outer sites of pontic ($P < 0.001$).
5. The result of this study suggested that metal-free fiber reinforced composite bridges are not available for clinical use in posterior region, but are available for clinical use in anterior region, short span bridge.

Oral Session II(AAP)

Ballroom II

OII-1

Aichi-Mag system(Magnetic Attachments) Used as Additional Retention in Partial and Full Overdenture

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The idea of applying magnetic attachments for additional denture retention and stability had been conceived since the early 1970's. However shortage of materials corrosion, insufficient attractive force and size became problems in clinical application. In 1993, February 7th. The Neodymium-Iron-Boron magnetic attachment, Magfit Ex 400/600 was introduced nail on wide in Japan through NHK Broadcasting.

Neodymium-Iron-Boron magnetic attachments are superior to other magnets because of its excellent resistance to corrosion. Clinical results in terms of function, esthetics, comfort and patient satisfaction are excellent.

Based on clinical evaluations so far, I conclude that Nd-Fe-B magnetic attachments can be used with great success in many cases where other means of mechanical retention are difficult to apply satisfactorily.

OII-2

A Few Cases of Partial Dentures Using Konus Crowns and Magnetic Attachments

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Sometimes we meet a patient who has few teeth or unpredictable teeth in his mouth and in that case we are at the very moment whether to extract or save those remaining teeth.