

The Use of the Magnetic Attachment in Taiwan



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Modern application of the magnetic attachment in Taiwan started from 1995 when Dr. Hiranuma introduced the Magfit system to Taiwan. Based on the clinical experience and the understanding of the shortcomings of the old systems, clinicians in Taiwan paid much attention to the Magfit system which has been regarded as the most powerful one with minimum size. The most frequent use of magnetic attachment is on the removable partial dentures with minimum retentive abutments. In National Taiwan University Hospital Dental Department, a total of 54 Magfit sets were applied in 1998 and before, and 83.3% were used with removable partial dentures. Around 10% of the attachment were used as abutment roots of overdentures. Only one set was used with an abutment of a removable bridge. Failure cases included the extraction of the root (1 case), evident marginal gingiva inflammation (6 cases), detachment of the magnet (2 cases), detachment of the cap (1 case), detachment of the keeper only (1 case), and fracture of the resin part over the magnet (4 cases). In addition, some laboratory failures were related to the design and technique pitfalls. The demand of stress breaking of the magnetic system was emphasized previously, and some cushion type system was developed recently. The new Magsoft system from Aichi has been advocated in Taiwan only recently. No clinical experience on it was available. The use of magnetic attachment on orthodontic tooth movement has just been considered in our university clinic. Orthodontists are paying attention to such development. The size, shape, force /distance ratio as well as the expel/attract uses of the magnetic devices have been discussed