

## The Application of Magnetic Attachment in Japan - Its Past, Present and Future



Minoru Ai, DDS, DDSc Professor Emeritus Department of Prosthodontics Tokyo Medical and Dental University, Japan

Today in Japan, the magnetic attachment is widely accepted by dentists in the clinical practice.

The trial of the magnetic attachment application in Japan has been started in 1980, at the moment of the introduction of the samarium-cobalt magnet. A research organization was founded to investigations, many problems concerning attractive force, corrosion problem, protection of magnet from oral environment had been encountered and the solutions were developed. In 1990, the magnetic attachment was given the approval as medical device from the Japan Ministry of Health and Welfare, and has been put into market.

At present commercial products of magnetic attachment are provided by 2 manufacturers. The neodymium-iron-boron magnets are now used instead of samarium-cobalt, giving the product higher performance and wider clinical application range. From wide clinical experience in Japan, the unique advantages of the magnetic attachment as well as limitations are now established. The magnetic application as the root surface attachment which was the primary objective of the research organization in 1980's seems nearly completed, and further improvement and alterations in magnet and attachment assembly are now making

