INTRODUCTION

The use of dental implants in the treatment of total or partial edentulism has demonstrated a high degree of success, with documented survival rates of 90% to 97%. (1, 2) Although improvements in implant design and surface techniques are used alone or in combination, depending on the clinical situation. (3, 4) However, even with the most advanced techniques, between 3% and 10% of implants still fail. (3, 4)

MATERIALS AND METHODS

Clinical data in this study was obtained from Implant Database. (9) This data set was extracted as de-identified information from the routine treatment reports of private and academic practices. The Institutional Review Board at New York University College of Dentistry (NYUCD). The ID number is #06-03-2156. This study was approved by the Health Insurance Portability and Accountability Act (HIPAA) on November 28, 2006.

At the time of implant removal, a decision tree has been previously used. A new multi-purpose device has been developed to remove implants with either the Counter-Ratchet Technique (CRT) and Reverse Screw Technique (RST) with this new device for implants. (10) According to a previous report (12), when using the Counter-Ratchet Technique, the use of dental implants in the treatment of total or partial edentulism has demonstrated a high degree of success.

RESULTS

The new multi-purpose device was used to remove implants with either the CRT and RST with this new device for implants. This one device can be used to remove implants, cover screws, and burs. (11) The clinical applications of device are seen in Table 1.

| Implant Brands Tested | Ankylos, Astra, Nobel Biocare | Biocare (Branemark), Straumann, 3i, All-Ceramic Abutments |

REFERENCES


DISTRIBUTION

The new multi-purpose device has versatility of use for different size of threads of connection implants. The device can be used to remove implants, cover screws, and burs. (11) This device can be altered by using a disc or bur in a low-speed handpiece. First line Second Line Third Line Fourth Line ø0.9mm ø1.2mm ø2.0mm ø2.5mm

Fig. 11. Different angles of multi-purpose device

Clinical applications of this device have a variety of additional indications and indications. First, when adjustments in length are necessary to alter the axial position of the device, it may not be applicable for additional use. Second, the devices should be adjusted to accommodate the size of the implant.

Table 1. Clinical applications of device. Implant brands were tested on Ankylos, Astra, Nobel Biocare (Branemark), Straumann, 3i, All-Ceramic Abutments, ES-Branemark, HN Biocare.

Lalorius, Maria, Kim, Geunhong, Kotsanidou, Kotsanidis, Chi, Sung-Choon, Tung, Francis, Chin, Mj

A New Multi-Purpose Device for Minimally Invasive Removal of Failing Implants and Damaged Screws

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Examples of discs are as follows:

• The internal screw of the CRT and the left external screw (1.5 mm, 1.6 mm, 2.0 mm, 2.5 mm) can be used for wear or stripped abutments when internal screw was removed. The first line (2.5 mm diameter) can be used for internal connection wear or stripped abutment.

• The fourth line (2.5 mm diameter) can be used for internal connection wide-diameter implants (ALL)

• The second line (1.2 mm diameter) can be used for worn or stripped abutment/cover screw implants (B, 3i).

• The third line (1.0 mm diameter) can be used for worn or stripped abutment/cover screw implants (ALL). The new multi-purpose device has versatility of use for different size of threads of connection implants (ALL)