CE-001 Development of dual-thread orthodontic implant with revolving cap (R1)

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【Objective】 Development of dual-thread orthodontic implant with revolving cap (R1) will be introduced. 【Ca Clinical application of orthodontic implants has been on the increase. However, when dynamic anchorage is requi it seems obviously insufficient and limited. In order to overcome this drawback, we, in cooperation with Departm of biomedical engineering, National Yang-Ming University, created a new type orthodontic implant featuring d thread and a revolving cap (R1), offering dynamic anchorage for omnidirectional tractions. Several clinical cases us this type of orthodontic implant will be shown. 【Discussion and Summary】 Strategy for successfully applying implant and its derived mechanism for orthodontic treatment was discussed, and some improvements and reflecti were taken into account.

CE-002 An effective method to shorten the period of orthodontic treatment (corticotomy assisted orthodontics)

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【Objective】 Shortening the duration of orthodontic treatment is one of the urgent issues. Corticotomy assis orthodontics is an effective method to reduce the duration of orthodontic treatment. 【Case】 Corticotomy assis orthodontic treatment were performed in two adult patients. First case was Class I malocclusion and treated w extraction of four first premolars, and second was Class II Division 1 malocclusion and treated with extraction of upper first premolars. Corticotomy was performed in both cases under local anesthesia during treatment. Orthodo treatment was finished in 11 months in the first case and 10 months in the second. At the end of the treatm adequate relationships in anterior and posterior teeth were obtained. The patients did not complain any signific pain or discomfort during the treatment. No side effect and complication were observed during and after orthodo treatment. 【Discussion and Summary】 The reduction of the duration may be due to the fact that physical stimula to the alveolar bone causes increase in cytokines and other bone remodeling substances, and consequently acceler the speed of tooth movement. Corticotomy assisted orthodontic treatment make it possible to reduce the duratio the treatment in half, as compared with that of conventional orthodontic treatment with extraction of premolars.