Implementation of expandable micro-motor bur (EMB) as a new device for immediate placement of dental implants

Amir Hashem Shahidi Bonjar
Kerman University of Medical Sciences, Iran

Replacement of extracted root with immediate dental implant has better prognosis as compared to conventional procedures. In this regard, Expandable Micro-motor Bur (EMB) was developed to introduce a new procedure for least invasive surgery upon extraction of residual broken root and prompt replacement with dental implant. To extract broken roots, generally invasive approaches as open window surgeries or mucoperiosteal flap and/or removal of buccal bone are performed. Integrity of the socket is a critical criterion for a proper implant osseo-integration. Accordingly, least invasive removal of residual root should be performed to keep the socket integrity. EMB is a new dental instrument designed for immediate dental implants upon removal of broken teeth roots that cannot be extracted by the routine closed methods while it maintains the integrity of surrounding hard tissue which common instrumentations cannot afford to accomplish. The advantages of this innovative procedure are: (1) No need for mucoperiosteal flap, hence preservation of soft tissue, (2) no need for osteotomy, hence retention of buccal bone, (3) reduced invasion to surrounding anatomical structures and (4) enhancement of perfect post operative dental implant osseointegration. This instrument was registered in the United States Patent and Trademark Office as an invention.

Biography
Amir Hashem Shahidi Bonjar has completed his DDS and is a PhD student at Dental Research Institute, Kerman University of Medical Sciences. He has published 8 US-Patents and more than 65 papers in reputed journals and international congresses. He was honored the titles of "Top Student of the Country" for the academic year 2012-2013, and "University Distinguished Investigator Award" as Top Researcher Student of Shahid Beheshti University of Medical Sciences, for three successive academic years. He was the head of the Unit of "Gifted and Talented Dental Students* of Shahid Beheshti School of Dentistry.

shahidiah@gmail.com

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