

Protaper Universal 镍钛根管预备器械临床使用寿命分析

罗 剑 童庆春

(上海市嘉定区中心医院 口腔科, 上海 201800)

【摘要】目的 探讨 Protaper Universal 镍钛根管预备锉临床使用寿命及其影响因素。**方法** 对 43 套用于临床根管制备的机用 Protaper Universal 镍钛根管预备锉进行使用次数的计数, 记录折断或解螺旋的扩大锉的号数。根据根管预备过程中顺畅性、阻力部位和器械是否折断来分析原因。**结果** 43 套机用 Protaper Universal 镍钛根管预备锉共制备了 964 个根管, 平均每套锉根管制备数为 22.4 个根管, 其中只有 5 套 (占 11.63%) 能制备 25 个根管及以上, 未出现任何锉折断或解螺旋并被及时丢弃。**结论** 影响 Protaper Universal 镍钛根管预备锉临床使用寿命的主要因素是镍钛合金的应力疲劳折断和根管钙化阻塞不畅造成器械的扭转断裂。建议临床根管预备过程中常规每套 Protaper Universal 根管锉制备根管数目控制在 22 次左右。

【关键词】 镍钛器械 根管预备 使用寿命 影响因素

DOI: 10.11752/j.kqcl.2016.01.05

Analysis clinical lifespan of Protaper Universal nickel-titanium root canal preparation instruments

Luo Jian Tong Qingchun

(Department of stomatology, Jiading District Central Hospital, Shanghai 201800)

【Abstract】Objective To investigate the factors affecting clinical lifespan of Protaper Universal nickel-titanium root canals preparation instruments. **Methods** The numbers of root canals prepared by 43 sets of Protaper Universal nickel-titanium files within service life were recorded. Meanwhile, the serial number of broken or unwinding of files was also recorded. The reason was analyzed based on the preparation process, resistance position and whether the equipment broken. **Results** 964 root canals was prepared by 43 sets of Protaper Universal nickel-titanium root canals instruments, the average number of each set prepared were 22.4 root canals. Only 5 sets was capable of prepared over 25 root canals (inclusive) without broken or unwinding, which accounted for 11.63%. **Conclusion** Both fatigue fracture from stress and obstruction from calcified root canal are the main factors affecting torsional fracture of Protaper Universal nickel-titanium root canals preparation instruments. Thus, the numbers of root canal prepared by each Protaper Universal conventional root canal file in clinical should be controlled within 22 times.

【Key words】 NiTi Instruments Root Canal Preparation Clinical Life Influencing factors

1992 年镍钛根管预备器械被率先引入南卡罗来纳州医科大学牙医学院使用, 此后开始在根管

治疗中广泛使用^[1]。目前临床应用的有 Protaper Universal 镍钛锉, TF 镍钛锉, K3 镍钛锉, Mtwo 镍钛锉等^[2,3,4]。虽然镍钛根管预备器械对比传统不锈钢根管预备器械有更好的柔韧性, 应用于弯曲

通信作者: 罗剑, E-mail: luojian0453006@126.com