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ProSystem GT

L. STEPHEN BUCHANAN

GT files represent, to date, the only system-based approach to shaping, obturating, and restoring endodontically involved teeth (Fig. 20.1). GT Files offer simple shaping solutions for the widest range of endodontic anatomy, from the smallest most tortuous canals to those with apical diameters just short of open apex classification (Figs. 20.2 A, B). GT Files have radiused tips and radial-landed cutting flutes that more accurately maintain original canal paths than shaping files having sharp tips and non-landed flute edges (Figs. 20.3 A, B). While GT Files were one of the first nickel titanium shaping file sets on the market, the GT System of instruments and materials have been updated, improved, and added to virtually every year since their introduction in 1994.

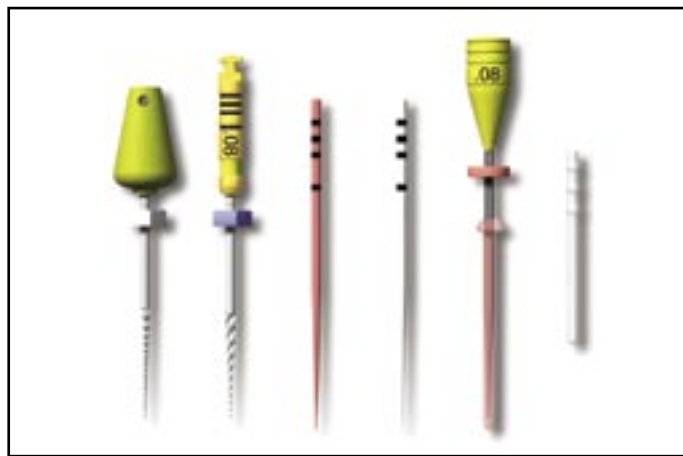


Fig. 20.1. The GT System of instruments and materials including (left to right) 20-08 GT Hand File, 20-08 GT Rotary File, .08 taper GT gutta-percha Point, .08 taper GT Paper Point, 20-08 GT Obturator, and 1.0 mm diameter GT Restorative Post.

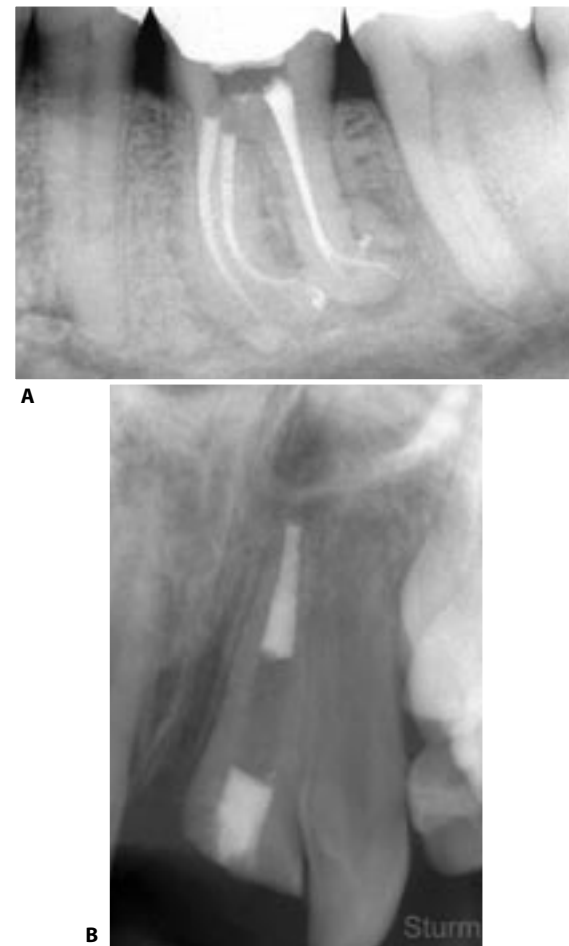


Fig. 20.2. **A.** Mandibular molar with small dilacerated canals shaped with GT Files. **B.** Maxillary central incisor with large canal shaped with a 90-.12 Accessory GT File (courtesy Dr. Jack Sturm).

FILE DESIGN

Traditionally, endodontic files have been tip-centric, all of the files in a set having the same .02 mm/

mm taper and differing only by their tip diameters. Creating a tapered preparation with these relatively non-tapered instruments required a lot of instruments (8-12) and a lot of procedural steps (20-55) as each of

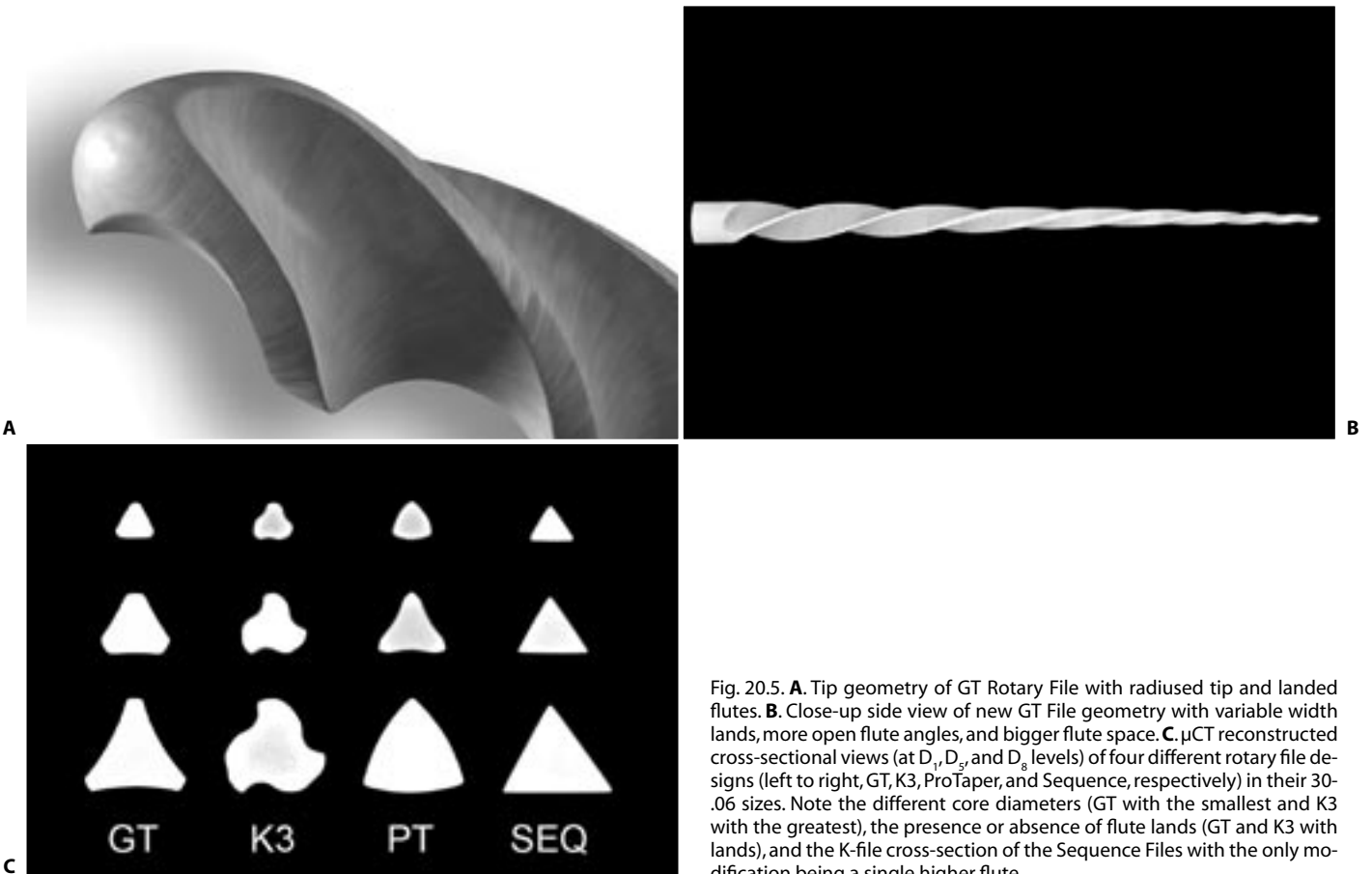


Fig. 20.5. **A.** Tip geometry of GT Rotary File with radiused tip and landed flutes. **B.** Close-up side view of new GT File geometry with variable width lands, more open flute angles, and bigger flute space. **C.** μ CT reconstructed cross-sectional views (at D_1 , D_2 , and D_3 levels) of four different rotary file designs (left to right, GT, K3, ProTaper, and Sequence, respectively) in their 30-.06 sizes. Note the different core diameters (GT with the smallest and K3 with the greatest), the presence or absence of flute lands (GT and K3 with lands), and the K-file cross-section of the Sequence Files with the only modification being a single higher flute.

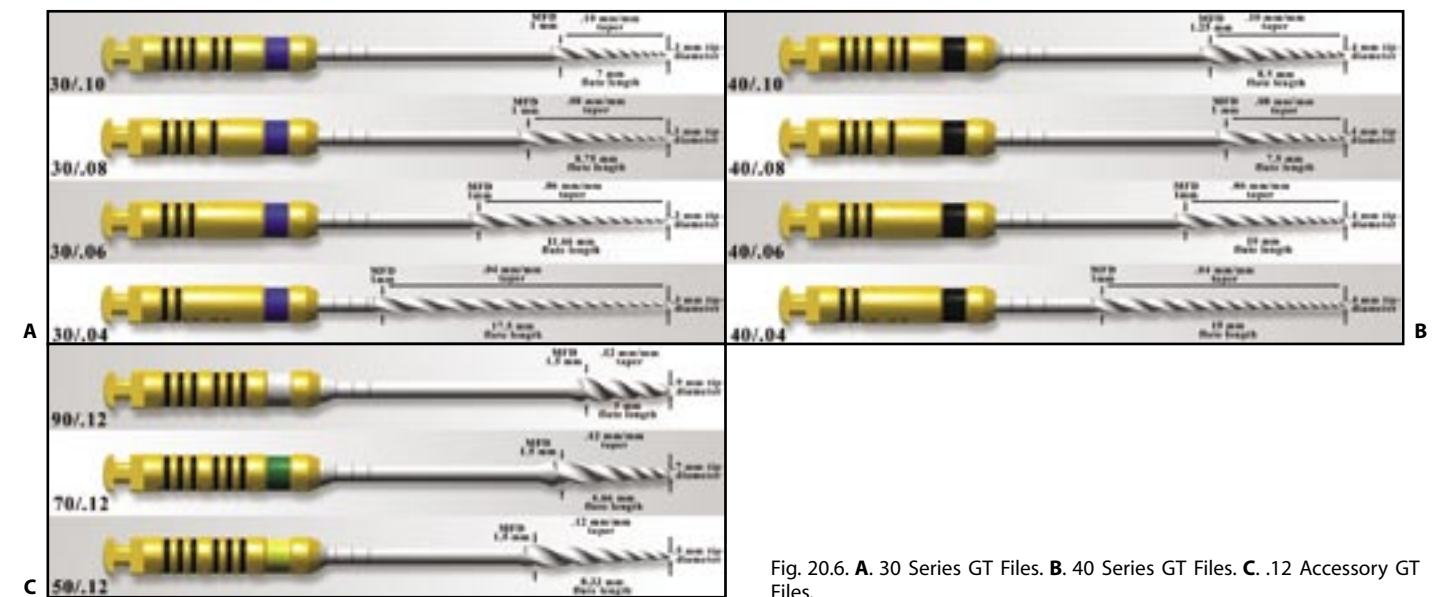


Fig. 20.6. **A.** 30 Series GT Files. **B.** 40 Series GT Files. **C.** .12 Accessory GT Files.