

Computed tomographic evaluation of the apical shaping ability of Hero Shaper and Revo-S

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Abstract

Aim: A new radiographic technique, multislice computer tomography, was used to compare apical transportation, centreing ability, percentage of straightening and change in canal volume in maxillary mesiobuccal root canals prepared with Hero Uj crgt"*Oketq"O² ic."Dgucp±qp."Htcpeg+"cpf"Tgxq/U"PkVk"*Oketq"O² ic+"tqvct{ " systems. **Methods:** Thirty mesiobuccal roots were selected and assigned into two groups (n = 15). Group I was instrumented by the Revo-S system and Group II was instrumented by the Hero Shaper system. Three-dimensional computed tomography images of the preinstrumentation and postinstrumentation stages were digitally analysed, recording the amount of apical transportation, centreing ratio, percentage of straightening and change in canal volume. A Mann Whitney U-test was adopted to compare the obtained data. **Results:** No statistically significant difference was recorded between the two studied systems regarding transportation, centreing ratio and canal volume (P > 0.05). Revo-S maintained the original canal curvature better than Hero Shaper (P < 0.05). **Conclusions:** Hero Shaper and Revo-S should be considered as efficient systems, which respect the original root canal anatomy with no resulting aberrations or failures.

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