

Canal shaping with WaveOne reciprocating files : influence of operator experience on instrument breakage and canal preparation time

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20407910&lokasi=lokal>

Abstrak

The aim of this study was to determine the fracture incidence of WaveOne Primary reciprocating files and the time required for shaping of curved canals based on the experience of the operator. A total of 109 mesiobuccal canals of permanent molars extracted with an angle of curvature of $>25^{\circ}$ - 45° according to Schneider were randomly assigned to four groups. An experienced operator (endodontist) and an inexperienced operator (student) each shaped one of two groups: one with the instrument WaveOne Primary to WL and the other after creation of a glide path with PathFile 1, 2 and 3 at the WL. Any fractures or visible deformations of the instruments during the shaping phase and the effective time required to prepare the canals for each instrument were recorded. No visible deformation or fracture was observed. The experienced operator tended to finish their shape faster than the inexperienced operator regardless of the technique applied. For the inexperienced operator, the usage time with only WaveOne Primary was significantly lower when the canals were preliminarily instrumented with the PathFile then when these instruments were not used (average time, 22.03 vs. 36.22 s, respectively; $p < 0.001$). The experience of the operator did not influence fracture of the WaveOne Primary instruments. The time required to prepare the canals was instead inversely proportional to the experience of the operator. However, the creation of a glide path with PathFile instruments reduced the time required by the inexperienced operator to prepare the canal.