AM. Pawar, B. Thakur, Z. Metzger, A. Kfir , M. Pawar The efficacy of the Self-Adjusting File versus WaveOne in removal of root filling residue that remains in oval canals after the use of ProTaper retreatment files: A cone-beam computed tomography study. Journal of Conservative Dentistry*:* Vol 19 , 2016 (pp 72-76).

Abstract:
AIM**:** The current *ex vivo* study compared the efficacy of removing root fillings using ProTaper retreatment files followed by either WaveOne reciprocating file or the Self-Adjusting File (SAF).
METHODS**:** Forty maxillary canines with single oval root canal were selected and sectioned to obtain 18-mm root segments. The root canals were instrumented with WaveOne primary files, followed by obturation using warm lateral compaction, and the sealer was allowed to fully set. The teeth were then divided into two equal groups (*N* = 20). Initial removal of the bulk of root filling material was performed with ProTaper retreatment files, followed by either WaveOne files (Group 1) or SAF (Group 2). Endosolv R was used as a gutta-percha softener. Preoperative and postoperative high-resolution cone-beam computed tomography (CBCT) was used to measure the volume of the root filling residue that was left after the procedure. Statistical analysis was performed using *t*-test.
RESULTS**:** The mean volume of root filling residue in Group 1 was 9.4 (±0.5) mm^3 , whereas in Group 2 the residue volume was 2.6 (±0.4) mm^3 , ($P < 0.001$; *t*-test). CONCLUSIONS**:** When SAF was used after ProTaper retreatment files, significantly less root filling residue was left in the canals compared to when WaveOne was used.