

## Evaluation of the Balanced Force Concept for Instrumentation of Curved Canals - In Vivo Study

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### **Abstract:**

Aim: to evaluate the balanced force instrumentation technique in the preparation of severely curved canals.

Methodology: forty permanent molars having canals' curvatures of 30 -80 were mechanically prepared clinically using the balanced force technique. In half of the cases (group I) modified K-files were used in the preparation and in the other half (group II) K-reamers were used. Curved canals were enlarged 5-6 sizes larger than the initial file size. Degrees of curvatures were measured before instrumentation and after obturation through x-rays using the Schniders' method.

Results and Conclusions: Generally, canal transportation using either type of instruments increased slowly as the pre-instrumentation curvature increased. Modified K-files resulted in a preparation with nearly no transportation in the range of curvature 30 -44 . The balanced force concept technique is an effective and safe method for preparation of severely curved canals.