

EXT STUDY RESTORATION

Coronal mikroleakage of various temporary fillings in standardized endodontic access cavities

DuoTEMP 
dual cure temporary filling material

coltosol[®] F

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STUDY AIM

To compare the coronal microleakage of various temporary fillings in endodontic access cavities.

EXPERIMENTAL SETUP

Standardized access cavities were prepared in 100 extracted human premolars. The teeth were then randomly divided into 9 groups of 10 teeth, with the remaining teeth serving as positive and negative controls.

The cavities in the experimental groups were filled with 4 mm of

- DuoTemp, COLTENE
- Coltosol F, COLTENE
- Cavit G, 3M ESPE *
- BMS, BMS Dental *
- Fermin, Detax *
- Clip, Voco *
- ProFill, WP Dental *
- TempBond Clear with Triclosan, Kerr *
- Ketac Molar Easymix, 3M ESPE *

according to the manufacturer's instructions. After thermocycling for 500 cycles (5-55°C), microleakage was measured by using a methylene blue dye penetration test. The teeth were sectioned, and the greatest depth of dye penetration was recorded.

RESULT

Coronal microleakage was evaluated with a stereomicroscope. Positive controls displayed complete dye penetration, and negative controls showed no dye penetration. All Temporary Fillings displayed some degree of leakage. DuoTemp and ColtosolF rank among the best sealing materials.

