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## **Brief Communication**

The Effects of Cured Dentin Bonding Agents on Secretion of Pro-Inflammatory Cytokines, IL-1 $\beta$  and TNF- $\alpha$ , by Human Monocytes

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## Abstract:

Dentin Bonding Agents (DBA) have been used as root-end filling materials. Present study evaluated the effects of polymerized DBA on secretion of pro-inflammatory cytokines by normal human monocytes.

In this study, monocytes were directly isolated from human peripheral blood, and exposed to cured Scotch Bond 1 (single bond) and Prime and Bond for 36 and 72 hours. Secretion of IL-1 $\beta$  and TNF- $\alpha$  in the presence of lipopolysaccaharide was evaluated in supernatants of monocyte culture.

DBAs significantly caused reduction of cytokine production by human monocytes after 36 and 72 hours. Prime and bond exposure caused more prominent decrease in TNF-a production after 72 hours.

We conclude that DBA in polymerized form can alter normal function of human monocytes.

## Keywords:

Dentin bonding agents  $\ \ IL\text{-}1\beta$  , Monocytes , TNF-a

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