

## Antibacterial Studies on *Curcuma amada* Ethanol Extract Against Selected Cariogenic Bacteria

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**SUMMARY.** In recent years, cavities have grown increasingly prevalent in both children and adults. The destruction of teeth is caused by cariogenic bacteria that produce or promote tooth decay. Recent studies on dental caries have highlighted the importance of herbal medications. The objective of this research was to assess the antibacterial activity of ethanolic extracts of *Curcuma amada* rhizome against *Streptococcus mutans*, *Streptococcus oralis*, and *Lactobacillus acidophilus*. In contrast to antibiotics, the rhizome extract of *Curcuma amada* shown significant anti-caries action against *Streptococcus mutans*, *Streptococcus oralis*, and *Lactobacillus acidophilus*. Oral pathogen *Streptococci* sp. was shown to be strongly inhibited in its biofilm production by this compound. The aforementioned findings shown that *Curcuma amada* rhizome extract had anti-caries action by inhibiting the development of *Streptococcal* dental caries.

**RESUMEN.** En los últimos años, las caries se han vuelto cada vez más frecuentes tanto en niños como en adultos. La destrucción de los dientes es provocada por bacterias cariogénicas que producen o favorecen la caries dental. Estudios recientes sobre la caries dental han destacado la importancia de los medicamentos a base de hierbas. El objetivo de esta investigación fue evaluar la actividad antibacteriana de extractos etanólicos de rizoma de *Curcuma amada* contra *Streptococcus mutans*, *Streptococcus oralis* y *Lactobacillus acidophilus*. A diferencia de los antibióticos, el extracto de rizoma de *Curcuma amada* mostró una importante acción anticaries contra *Streptococcus mutans*, *Streptococcus oralis* y *Lactobacillus acidophilus*. Se demostró que en el patógeno oral *Streptococci* sp. este compuesto inhibía fuertemente la producción de biopelículas. Los hallazgos antes mencionados mostraron que el extracto de rizoma de *Curcuma amada* tenía acción anticaries al inhibir el desarrollo de la caries dental estreptocócica.

**KEY WORDS:** anti-biofilm activity, anti-caries activity, *Curcuma amada*, *Streptococcus mutans*, *Streptococcus oralis*, *Lactobacillus acidophilus*.

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