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An in-vitro evaluation of *Tinospora bakis* and *Curcuma longa* against *Madurella mycetomatis*

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Mycetoma is a chronic specific granulomatous subcutaneous inflammatory disease. It is caused by true fungi (eumycetoma) or by bacteria (actinomycetoma). Current medical treatment of eumycetoma by various antifungals seems to be inadequate and recurrence after a long treatment is very common [1].

An attempt was made to explore the potential antimycetomal activity of the root of *Tinospora bakis* (Menispermaceae) and the rhizome of *Curcuma longa* (Zingiberaceae). The root of *T. bakis* was extracted with chloroform and a mixture of methanol acetone, while the rhizome of *C. longa* was extracted with 70% ethanol followed by its concentration and fractionation with ethyl acetate. All the extracts and fractions were subjected to screening against *Madurella mycetomatis* using resazurin assay in sterile 96-well microplate [1].

The *T. bakis* chloroform extract, and methanol-acetone mixture exhibited MICs of 78.1 and 39.1 µg/mL, respectively. The crude ethanolic extract of *C. longa* showed inhibition with MIC of 39.1 which was far exceeding the MIC of 156 µg/mL of ethyl acetate fraction, while ketoconazole, the positive control showed MIC of 0.25 µg/mL.

The presence of alkaloid berberine and the diarylheptanoid curcumin provided evidence of the underline molecular mechanism of *T. bakis* [2] and *C. longa* [3], respectively.

