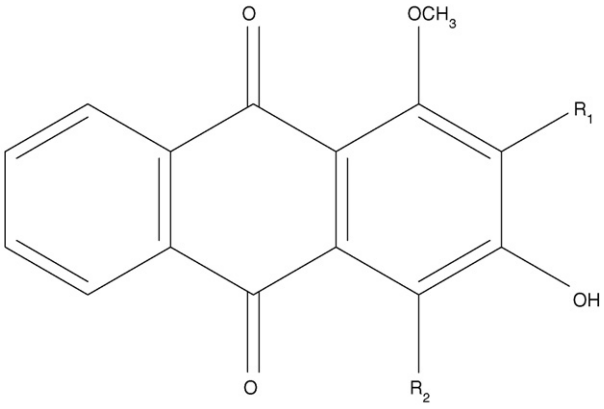
monitor

MOLECULES

A novel antifungal anthraquinone from *Saprosma fragrans*

The clinical relevance of fungal diseases has increased enormously as a result of the growing number of immunocompromised subjects (e.g. individuals infected with HIV, transplant recipients and patients with cancer) [1,2]. By contrast, adequate treatment of mycotic infections is difficult because the long-term use of several common antifungals can have toxic effects. In addition, many compounds have a limited spectrum and efficacy, and their use can result in strain resistance [3].

As part of their ongoing studies in this field, Singh and collaborators [4] recently reported their results on the isolation and characterization of a new anthraquinone **(i)** and the known compound **ii** [5] from the ethanolic extract of the aerial part of *Saprosma fragrans*. The structure of **i** as the 3,4-dihydroxy-1-methoxy-anthraquinone-2-carboxaldehyde was attributed on the basis of IR, NMR and mass analyses. Compound **i** generated minimum inhibitory concentration (MIC) values of 12.5 μg/ml against *Trichophyton mentagrophytes* and 25 μg/ml against *Sporothrix schenckii*, whereas the MIC values for compound **ii** were 1.56 μg/ml and 6.25 μg/ml against *Trichophyton mentagrophytes* and *Sporothrix schenckii*, respectively. In the same tests, the MIC values for clotrimazole, chosen as a standard antifungal, were 0.39 μg/ml and 1.56 μg/ml against *Trichophyton mentagrophytes* and *Sporothrix schenckii*, respectively. On these bases, further chemical studies on compounds **i** and **ii** could lead to a new potent antifungal drug.



(i) R_1 = CHO; R_2 = OH

(ii) R_1 = CHO; R_2 = H

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