COMPARATIVE STUDY OF THE EFFECTS OF PURE MYRCENE/ P-COUMARIC ACID AND CRUDE EXTRACTS FROM SWEET BASIL *(Ocimum basilicum)* LEAVES ON *Trichophyton mentagrophytes*

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Abstract

A comparative study of crude extracts of sweet basil (*Ocimum basilicum*) leaves and its compounds, myrcene and p-coumaric acid present in it were tested for antifungal activity. The crude extract and two of the compounds, myrcene and p-coumaric acid were tested for their antifungal activity against the *Trichophyton mentagrophyte*. The two compounds were the myrcene and p-coumaric acid whose activity were tested using the agar dilution method to determine the minimum inhibition concentration (MIC) of these compounds. The crude extract was extracted using the rotary evaporator while the pure myrcene and p-coumaric acid were purchased. The presence of myrcene on the leaves was determined using gas chromatography and the p-coumaric acid was determined using high powered liquid chromatography. A positive control (terbinafine) and a negative control were used in the experiment. Results of the crude extract containing myrcene and p-coumaric acid had an MIC of 750 mg/ml. The compounds myrcene at 13.6 µl/ml concentration and p-coumaric acid at 0.42 mg/ml concentration inhibited the growth of *T. mentagrophyte*. These results show that these two compounds that are present in sweet basil leaf extract against T. *mentagrophyte* are among the bioactive components. The study showed that the p-coumaric acid is more effective than myrcene and the crude extract.

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