Antibacterial and Antifungal Activity of Dombeya torrida (J.F. Gmel) and Hydnora abyssinica (A. Braun)

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Background:

The decoction of Dombeya torrida bark is used to treat indigestion while its roots are used for treatment of chest pains and colds. Hydnora abyssinica decoction is used as a cure for throat complaints, as an astringent in dysentery, for treatment of typhoid, anthrax and East Coast Fever.

Objectives:

The present study was aimed at investigating the antibacterial and antifungal activities of D. torrida and H. abyssinica.

Methodology:

The D. torrida stem-bark and leaves and H. Abyssinica whole plant were collected from Kiambu County and Embu County, respectively. Extraction of the plants was carried out using chloroform, methanol and water. The extracts were screened for activity against Staphylococcus aureus, Staphylococcus epididermis, Bacillus pumilus, Escherichia coli, Saccharomyces cerevisiae and Candida albicans using agar diffusion assay and autobioassay.

Results:

Dombeya torrida bark decoction had the highest activity against S. aureus with an inhibition zone diameter of 16.91 mm. Hydnora abyssinica macerate had least activity against S. aureus with a zone diameter of 8.86 mm. Dombeya torrida bark decoction had the highest activity against S. Epididermis with a diameter of 17.05 mm with Hydnora abyssinica having the least activity. Activity against E.coli was highest for D. torrida bark decoction with zone diameter of 16.56 mm. Hydnora abyssinica chloroform extract had the highest activity against B. pumilus with a zone diameter of 17.04 mm. the highest activity observed against S. cerevisiae was with D.torrida chloroform extract with a zone
diameter of 17.69 mm with *H. abyssinica* macerate having the least activity (7.70 mm). *Dombeya torrida* chloroform extract was the most active extract against *C. albicans* with a zone diameter of 20.09 mm.

**Conclusion:**

The plants under study, *D. torrida* and *H. torrida* were chosen on the basis of folklore. Above results support the folklore that *H. abyssinica* is used as a cure for throat complaints, as an astringent in dysentery, treatment of diarrhea and amoeba dysentery. Results of *D. torrida* extracts also support its folklore use to treat chest pains and colds as many of these conditions are usually caused by bacteria infections.

**Keywords:** antibacterial, antifungal, Dombeya torrida, Hydnora abyssinica, autobioassay

**Receives:** February, 2014

**Published:** March, 2014