

**Title: Evaluation of antifungal efficacy of *Piper Betel* and *Vitex trifolia* against *Candida albicans* and *Candida glabrata*: an in-vitro and in silico study**

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**Abstract:**

**Background:** *Piper betel* leaf belongs to the family of *Piperaceae*. Many active metabolites from betel leaf such as hydroxychavicol and phenolic compounds have been proven in literature to have potent anti bacterial efficacy. **Aim:** The present study aimed to evaluate the antifungal efficacy of betel leaf and *Vitex trifolia* against oral candida species. **Methodology:** Leaves of betel leaf & *Vitex trifolia* were procured, dried and ground to fine powder. Dimethyl sulfoxide was used as solvent. Antifungal efficacy was evaluated by agar well diffusion method. Molecular docking was also done using Autodock Vina. **Results:** Zone of inhibition was evaluated to study the compare the antifungal efficacy of *Piper betel* leaf and *Vitex trifolia*. Binding of betel leaf & *Vitex trifolia* were analysed for both *Candida albicans* and *Candida glabrata*. **Conclusion:** *Vitex trifolia* had better anti fungal efficacy than betel leaf. Antifungal efficacy and molecular bonding were better for *Candida albicans* than *Candida glabrata*.

**Keywords:** albicans, non albicans, *Vitex trifolia*, betel leaf