





Anti-Yeasts, Antioxidant and Healing Properties of Henna Pre-Treated by Moist Heat and Molecular Docking of Its Major Constituents, Chlorogenic and Ellagic Acids, with Candida albicans and Geotrichum candidum Proteins

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Abstract: This study investigates the impact of moist heat on the flavonoid and phenolic contents of Lawsonia inermis (henna) powder and its biological activities. HPLC analysis identified 20 flavonoids and phenolics in untreated henna (UPMH) and 19 in pre-treated henna (PMH). UPMH contained higher concentrations of key compounds like chlorogenic and ellagic acids. UPMH exhibited stronger antifungal effects against Candida species and better wound healing properties compared to PMH. Antioxidant activity was notable in both, with UPMH having a lower IC50 value. Docking studies showed chlorogenic acid had stronger interactions with fungal proteins than ellagic acid.



