

## **In-Vivo Study of Anacardium occidentale L. Emulgel Extract Using Non-Invasive Probes**

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**Abstract :** The focus of the study was to design, develop and characterize in vivo, a stable Emulgel formulation containing Anacardium occidentale L.(cashew extract) as an active ingredient. The formulation was prepared and kept at 8°C, 25 °C, 40°C and 40°C±RH for a period of 28 days. During this time period, stability, pH values, conductivity, organoleptic features (color, liquefaction, phase separation) were conducted at the intervals of day 1st, 2nd, 3rd , 7th, 14th and 28th days. In In vivo studies, the test formulation (5% Anacardium occidentale L, extract) and a base formulation (without cashew extract) were prepared and both were applied on cheek areas of healthy human female volunteers, after the skin sensitivity test of each volunteer, for a study period of 8 weeks after getting consent from them. Various parameters of skin like Melanin level, Erythema level, and skin elasticity were measured at regular time intervals. Results of the study were analyzed by statistical techniques i.e. Two Way ANOVA and paired sample t-test. The result showed significant results as the  $p \leq 0.05$ . Findings of paired sample t-test explained that test formulation have profound effects on skin parameters when compared with control formulation.

**Keywords :** Anacardium occidentale L., anti-oxidant, cashew nut, emulgel

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