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# EVALUATION OF POSSIBLE CLINICAL LINK BETWEEN KELOID AND HYPERTENSION AMONG NIGERIAN

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Background: Keloid represent a significant dermatological burden in Nigeria, with prevalence rates reaching 16% in some populations. While traditionally viewed as a localized skin disorder, emerging evidence suggests potential associations between keloid formation and systemic hypertension.

Method: A hospital-based case-control study was conducted at Obafemi Awolowo University Teaching hospital Ile Ife and Federal Medical Centre, Owo, Nigeria, involving 180 participants (90 keloid patients and 90 age- and sex-matched controls). Comprehensive cardiovascular assessment included blood pressure measurements, hemodynamic parameters (cardiac output, stroke volume, cardiac index, stroke index and total peripheral resistance), and family history evaluation done. Data were analyzed using Student's t-test, chi-square test, binary logistic regression.

Results: The mean age was 33.60±12.63 years in keloid patients versus 33.70±12.45 years in controls (p=0.934). Although hypertension prevalence was numerically higher in keloid patients (13.3% vs 8.9%, p=0.343), this difference was not statistically significant. Family history of both hypertension and keloids was significantly more prevalent in keloid patients (11.1% vs 1.1%, p<0.001). In regression analyses, keloid status independently predicted diastolic blood pressure (?=0.18, p=0.036), total peripheral resistance (?=0.41, p<0.001), and cardiac indices.

Conclusion: Keloid demonstrated strong associations with increased peripheral vascular resistance, elevated diastolic blood pressure, and reduced cardiac indices, although not significantly related to systolic hypertension. These findings suggest early subclinical stage, predating overt systemic hypertension. Routine cardiovascular screening in keloid patients may be warranted, and longitudinal studies are needed.

**Keywords:** Keloid, Hypertension, Peripheral Resistance, Diastolic Blood Pressure and Family History