



HYPERHIDROSIS

CORRELATION OF CARDIOVASCULAR AUTONOMIC FUNCTION, PERIPHERAL VASCULAR ENDOTHELIAL FUNCTION AND QUALITY OF LIFE WITH DISEASE SEVERITY IN PRIMARY HYPERHIDROSIS

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Introduction: The psychosocial morbidity in patients with primary hyperhidrosis (PHH) is well established and it is known to hamper routine work and quality of life. But there is paucity of data from tropical countries. Additionally, the role of peripheral vascular endothelial function in PHH is unknown.

Objectives: To study the cardiovascular autonomic function, peripheral vascular endothelial function and quality of life in patients with PHH and correlating the severity of disease with the above.

Materials and Methods: Consecutive patients were assessed for complete demographic profile, disease severity (using hyperhidrosis disease severity scale or HDSS) and quality of life (using DLQI). After administering appropriate management, the patients were referred for cardiovascular autonomic function testing (AFT). Patient's venous blood was assessed for the activity of endothelial specific Nitric oxide synthase (eNOS) as a marker of peripheral endothelial activity and vasoactive intestinal peptide (VIP) as a surrogate marker for eccrine secreto-motor neuro-transmission.

Results: Total 73 patients were recruited with a mean age of 18.7 + 3.7 years. Focal palmo-plantar involvement was commonest (63% patients) and the disease was classified as severe in 50%. Mean DLQI was 11.3 + 6.1 with classifiable effects of HH on QOL being extremely large in 7.2% and very large in 50.7% patients. HDSS significantly ($p=0.037$) negatively correlated with DLQI with a Pearson correlation coefficient of -0.253. Sympathetic reactivity was increased in 19% with loss of cardiac autonomic tone in 26.9% patients but none correlated with HDSS. Postural rise in systolic blood pressure was observed during AFT in 20 patients (27.4%). Both blood eNOS and VIP values were significantly elevated in patients as compared to controls ($p=0.002$ and $p=0.006$, respectively).





Conclusions: PHH severity significantly correlates with quality of life. Peripheral vascular endothelial function and eccrine innervation appear to be altered in these patients and may have future therapeutic implications.

