THESIS

ASSOCIATION OF *DEHA PRAKṚTI* (BODY CONSTITUTION) WITH *DHĀTU SĀRATĀ* (TISSUE EXCELLENCE) AND EXPRESSION OF SELECTED INFLAMMATORY MARKERS IN PATIENTS WITH CHRONIC KIDNEY DISEASE (CKD) - WESTERN PROVINCE, SRI LANKA

Submitted by

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(FGS/MDS/MPhil/2021/001)

A thesis submitted to the Faculty of Graduate Studies, University of Kelaniya

In fulfillment of the requirements for the degree of

Master of Philosophy in Āyurveda Physiology

August 2023

Abstract

Chronic Kidney Disease (CKD) has become a considerable disease burden worldwide, even in Sri Lanka. Although the concepts of *Deha prakṛti* (body constitution), *Dhātu sāratā* (tissue excellence) and *Vyādhikṣamatva* (immunity) are multifaceted with high clinical significance in the prevention and management of CKD, the importance of integrated Āyurveda and Western medical approach in the prevention and management of CKD has not been studied previously.

Therefore, this study aimed to determine the association of *Deha prakṛti* with *Dhātu sāratā* status and *Vyādhikṣamatva* by assessing the levels of selected inflammatory markers, i.e., Erythrocyte Sedimentation Rate (ESR), C - Reactive Protein (CRP), Interleukin - Six (IL - 6) and Tumor Necrosis Factor – alpha (TNF - α) in the patients with CKD - Western Province, Sri Lanka.

The study included 113 diagnosed CKD patients and 122 healthy individuals. Standardized and validated questionnaires were used to assess *Deha prakṛti* and *Dhātu sāratā* status of each subject. ESR and CRP levels were determined using Westergren and Slide agglutination methods, respectively. Pro-inflammatory cytokines; IL – 6 and TNF – α levels were quantitatively determined by indirect sandwich Enzyme - Linked Immunosorbent Assay (ELISA).

Pitta pradhāna (dominant) *prakṛti* types were more prevalent (41.6%) among CKD patients and the types of *Deha prakṛti* were significantly associated with the disease stages (p-value < 0.05). Further, *Deha prakṛti* types were significantly associated with *Sāra* status (the level of tissue excellence) of each *Dhātu* (tissue) and *Sattva* (mental status) and the levels of ESR and IL – 6 (p-value < 0.05). In healthy individuals, the types of *Deha prakṛti* were significantly associated with all *Dhātu sāratā* status except *Rasa* (plasma), *Rakta* (blood) *dhātu* and *Sattva.* p-value was less than 0.05 for *Medas* (fat tissues), *Asthi* (bone tissues)*, Majjā* (bone marrow) and *Śukra* (reproductive tissues – sperms and ova) in relation to the above. The *Rakta dhātu sāratā* and *Sattva sāratā* of healthy individuals were at their maximum regardless of *Deha prakṛti* types. Moreover, significant associations could be determined between *Deha prakṛti* types and the levels of ESR and IL – 6 (p-value < 0.05) in healthy individuals too. Furthermore, it was also found that both *Dhātu sāratā* status including *Sattva* and the levels of selected inflammatory markers in CKD patients depend on the disease stages (p-value < 0.05).

Keywords: Association, CKD, *Deha prakṛti*, *Dhātu sāratā*, inflammatory marker