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Commentary on: "A prognostic role for non-thyroidal illness syndrome in chronic renal failure: A systematic review and meta-analysis"

Chronic Renal Failure (CRF) itself is a debilitating disease; in addition to this entity is the risen concern of non-thyroidal illness syndrome (NTIS). This is very effectively covered by the authors of this meta-analysis and their approach is highly appreciated. Hormones modulate the internal milieu to ensure normal body functions. However, due to any reason if these hormones are secreted in excess or are deficient, they can add a worsening course to the pre-existing illness. An excess of reverse T3 and a deficiency of free T3 (an active form of thyroid hormone) in critically ill-patients also contributes to the long-term outcomes. A combined effect of uremia and dialysis adds to the high rate of mortality in patients with CRF. The meta-analysis conducted by the authors is suggestive of an increased mortality in patients with CRF accompanied with NTIS. Moreover, the association between the two was tracked down using surrogates like urea, uric acid, creatinine and T3. The pathogenesis due to this effect is being understood as discussed in a update by Warner et al., which is due to an increased induction of central hypothyroidism by catalysis of the active hormone within the gland, an initial fall in the hormones are attributed to the decrease in the binding capacity of thyroid hormone in the plasma, and an impaired thyroid hormone receptor expression are some of the identified reasons [1]. A study conducted by Yan et al., used sodium bicarbonate and N-acetyl cysteine in promoting effective recovery in patients with NTIS and delaying deterioration in CRF [2]. A systematic review and a meta-analysis conducted by Xiong et al. identified that NTIS had more impact on the short-term vs. The long term prognosis in patients with CRF [3]. In summary, the cardinal points as raised by the author must be taken into consideration when treating patients with CRF to lower morbidity and mortality. All patients with CRF should be screened for a decrease in the thyroid hormone levels as soon as possible. If detected, hormone therapy must be instituted early in the disease course. Additionally, measures should be taken to understand the underlying correlation of CRF with NTIS.

Conflicts of interest

There is no conflict of interest to be declared.

Provenance and peer review

Invited Commentary, internally reviewed.

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Numan Majeed*
Department of Chemical Pathology, Army Medical College, Rawalpindi, Pakistan
E-mail address: numan.mjd@gmail.com.

Hira Pervez
Jinnah Postgraduate Medical Centre, Pakistan
E-mail address: drhirapervez@gmail.com.

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* Corresponding author.

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