



Interaction of renin–angiotensin–aldosterone system and parathyroid hormone; a new dilemma

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Various investigations have been detected, parathyroid hormone (parathormone) has been implicated in regulating the renin–angiotensin–aldosterone system (1-3). The system of renin–angiotensin–aldosterone, in turn, has been involved in regulating the calcium-regulatory hormones such as vitamin D and parathormone. In fact, inappropriate action of both parathyroid hormone and the renin–angiotensin–aldosterone system may negatively influence skeletal health and cardiovascular (2-6).

The observational studies such as reduced bone mineral density and a higher rate of osteoporosis in patients with primary hyperaldosteronism and an elevated parathormone levels which are lowered after clinically indicated surgical or medical treatment in these patients, is a human evidence describing the positive association between renin–angiotensin–aldosterone system activity and parathormone (1-5). Likewise, Treatment with spironolactone therapy is associated with lower fracture risk in heart failure (3-7). More importantly, the administration of renin–angiotensin–aldosterone inhibitors is associated with lower parathormone levels in chronic renal failure patients (4-8).

It is possible that physiological interaction between the renin–angiotensin–aldosterone system and parathormone exists, however, this interaction requires further investigations for better treatment of chronic kidney disease (6-10).

Author's contribution

HN was the single author of the manuscript.

Ethical considerations

Ethical issues (including plagiarism, informed consent, misconduct, double publication and redundancy) have been completely observed by author.

Conflict of interests

The author declared no competing interests.

■ Implication for health policy/practice/research/medical education

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