Emerging Pain Ameliorating Effects of Spironolactone

An Additional Benefit of Its Use in Hypertensive and Cardiac Patients: Recent Insights

To the Editor:

The recent article by Raheja et al. 1 provided for highly interesting reading. Interestingly, recent data suggest that spironolactone may have significant pain ameliorating effects that may prove to be an additional benefit of its use in hypertensive and cardiac patients.

For instance, intrathecal administration of spironolactone significantly decreases pain in response to nociceptive stimuli. Spironolactone exerts these analgesic effects by decreasing the production of inflammatory cytokines, especially p-NR1 and tumor necrosis factor-α. 2 Spironolactone also attenuates microglia activation, as well as causes downregulation of N-Methyl-D-aspartate (NMDA) receptors in the dorsal root ganglions.

Similarly, spironolactone decreases diabetes mellitus–associated hyperalgesia by mitigating diabetes mellitus–associated elevations in nitric oxide levels in the serum. 3 Interestingly, spironolactone accentuates the antinociceptive potential of steroids such as dexamethasone. 4 This synergistic effect of spironolactone is mediated by its antagonistic effect on mineralocorticoid receptors.

The above data clearly illustrate the antinociceptive effects of spironolactone and the need for further studies to fully elaborate its analgesic properties.

Disclosures

None.

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