STUDENTS' CORNER
LETTER TO THE EDITOR

Ultra-low dose multi-drug quadruple single-pill combination for hypertension

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Respected Madam, Patients with hypertension require a multi-drug regimen to manage hypertension. But, multi-drug management may lead to patients' lower cohesion to drugs and multiple adverse effects.[1] On the contrary a single pill containing four drugs (calcium channel blockers, beta-blockers, angiotensin II receptor blockers, and thiazide diuretics) of low dosages may deliver the same outcomes with lesser inauspicious effects.

Current hypertension guidelines of the American Heart Association categorically recommend using a combination of four drugs in to manage and control hypertension, preferably in single-pill preparations.[2] Most patients remain on a single-drug therapy with insubordinate control, despite the recommendations that most require single-pill combination therapy of four drugs for blood pressure management.[3] A recent randomized control trial demonstrated that a combination of four blood pressure-reducing agents in a single-pill at lower doses provided a simple, safe and potent treatment that improved the patient's cohesion to the drug. The quadruple combination consists of four drugs: calcium channel blockers, beta-blockers, angiotensin II receptor blockers, and thiazide diuretics.

Quadruple therapy is proven to have many benefits, namely higher efficacy, fewer adverse effects, and fast acting. It is found to be cost-effective as compared to monotherapy of multi-drugs. It is also known that patients taking high doses of multiple drugs to control blood pressure would be at higher risk of facing adverse effects such as bradycardia, hypokalaemia, metabolic alkalosis, and constipation being the most common ones. In contrast, quadruple therapy consists of low dosages and it's a combination of drugs to be taken together which helps the patient to surpass the adverse effects and effectively lower the blood pressure. It is also noted that quadruple therapy has proved effective in primary hypertension as a trial on a quadruple single-pill combination showed that the single-pill combination effectively reduced blood pressure in patients with stage 1 hypertension.[4]

In light of the above evidence, healthcare professionals should know the benefits of using a single-pill quadruple therapy for managing hypertension instead of traditional monotherapy. Moreover, additional studies should be performed on the effectiveness of using quadruple therapy.

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