

Rahul Gupta
 Apollo Hospital, Plot No. 13, Parsik Hill Road, Sec-23, CBD Belapur,
 Navi Mumbai, 400614, India E-mail address:
 drrahul.gupta@hotmail.com (R. Gupta).

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Letter – Diuretics in primary hypertension – Reloaded



Dear Sir,

This is in reference to your editorial¹ which appeared in Indian heart journal titled “Diuretics reloaded in primary hypertension”. Its an interesting article, and I would like to highlight a few points:

- 1 Diuretics as a first line drug in elderly hypertensives is slowly getting forgotten by many due to fear of its metabolic side-effects- In high dose, yes it might cause problem especially Thiazide diuretics and its equivalent but with the advent of low dose chlorthalidone (12.5 and 25 mg) and Indapamide has decreased this fear.
- 2 Low dose chlorthalidone and indapamide has shown superiority over the thiazide diuretics in reducing the CV outcomes, systolic BP and improving the MACE events and thereby improving the mortality and morbidity benefits.^{2, 3}
- 3 Coming to the metabolic side effects profile, even low dose chlorthalidone seem to cause metabolic imbalance to some extent, whereas indapamide either alone or in combination with perindopril has or showed improvement in all-cause mortality and morbidity – MACE events and CV outcomes. Several trials namely PROGRESS, ADVANCE to name a few have proved it.⁴

Hence we can say that, diuretics are here to stay like other classes of anti-hypertensives in essential hypertension especially in elderly subsets.

My experiances-

I have used indapamide as well as low dose chlorthalidone in hypertensive subsets and I have noticed better control with indapamide as add on drug in improving outcomes even better than chlorthalidone (one of my family member is on indapamide).

I conclude by saying that this article is an eye opener for many as it reiterates the fact that many new group of drugs may come but diuretics have their own stand, which was beautifully brought out in your article.

Conflict of interests

All the authors declare that they have no conflict of interest.

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Viginesh Thanikgaivasan
 Kavery Hospital, No. 199, Luz Church Road, Mylapore, Chennai
 600004, India E-mail address:
 viginesh.thanikgaivasan17@gmail.com (V. Thanikgaivasan).

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Renoprotection with indapamide, additional feature to look for



To the Editor,

At the outset I would like to congratulate you for choosing a topic which has even a larger relevance in a country like India. You have rightly pointed out that despite several trials have demonstrated mortality benefit with diuretic therapy in uncomplicated hypertension their use in real world practice is going down.¹ The declining trend in prescription may be related to several misconceptions prevailing about the use of diuretics in primary hypertension. You also recommended that among the available options of diuretics, low dose chlorthalidone and indapamide are preferred because they are less likely to be associated with significant adverse metabolic effects (increased lipid levels, adverse effects on glucose metabolism, effects on arrhythmias, etc.). In this letter, I would like to add a few more points in favor of indapamide in terms of renoprotection and other effects which may boost our confidence on this molecule.

In 1991 Gambardella et al. first published the renoprotective effect of long-term indapamide treatment, defined as a reduction in urinary protein loss in patients with type 2 diabetes and persistent microalbuminuria.² Several other reports also claimed the similar effects, some of them stating the drug being as effective as ACEIs.^{3,4} These apparent renoprotective effects of thiazide diuretics may be specific to diabetic patients.

Apart from the above mentioned advantages, indapamide is likely to cause less hypokalemia when compared to equivalent doses of chlorthalidone and hydrochlorothiazide.⁵ Not only that, indapamide is most effective in terms of nocturnal BP control among all the available diuretic options. These benefits of indapamide are proven at the therapeutic dosage of either 2.5 mg immediate release or the superior 1.5 mg sustained release. The SR formulation avoids unnecessary peak in the plasma level of the drug and ensures that only a subclinical diuresis is there, while indapamide controls BP by its predominantly vascular effect (normalization of hyperreactivity of vasculature to noradrenalin). This minimizes the risk of diuretic related side effects like electrolytic or metabolic disturbances. Indapamide also causes venorelaxation, which explains why the risk of pedal edema is minimized when indapamide is added to amlodipine.

So, I fully agree with you that we should increase our prescriptions of diuretics in uncomplicated primary hypertension. Among the available diuretic options, indapamide is probably having an edge, particularly in diabetic subpopulation.