

Aspects of some complex issues in hypertension

"Approximately 15–20% of patients with hypertension have difficult-to-treat (resistant) hypertension. Reducing the blood pressure in this group of patients is a challenge for the clinician."

Hypertension continues to pose the single greatest healthcare threat to the populations of virtually all developed and developing countries. Hypertension is second only to age as the major contributor to the risk of stroke, myocardial infarction, heart failure and chronic renal disease. Although the exact cause(s) of hypertension remains unknown, it is now clear that reducing blood pressure, the biomarker of hypertension, is the top priority for therapy.

This issue of *Therapy* is devoted to various aspects of the field of hypertension. Concepts of the pathophysiology, diagnosis and treatment of hypertension are ever-evolving and this issue is an effort to assist the reader in staying abreast of this dynamic field.

The development of drugs that lower blood pressure and attenuate other harmful pathways in the development of target organ damage by interfering with the renin–angiotensin–aldosterone system has matured. Drugs that antagonize the renin–angiotensin system cascade from the rate-limiting enzyme, renin, to antagonizing the receptors for angiotensin II have been developed. Oparil *et al.* discusses the rationale for combining these drugs in a way that makes pharmacological sense and assists the clinician [1].

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Approximately 15–20% of patients with hypertension have difficult-to-treat (resistant) hypertension. Reducing the blood pressure in this group of patients is a challenge for the clinician. Pimenta and Stowasser address the evaluation and management strategies for this important problem facing clinicians [2].

The combination of drugs that perturb the renin–angiotensin system and interfere with calcium influx into the cell (i.e., calcium channel blockers) has become popular. Mason *et al.* explain why this approach may be superior to other treatment regimens in treating patients with hypertension [3].

Unfortunately, clinicians often do not consider that blood pressure elevations, particularly in patients with hypertension, may be due to the ingestion of other substances, often drugs, that are administered for other conditions. Sander provides a thorough review of this topic and knowledge of its contents will aid the clinician in maintaining more satisfactory levels of blood pressure for the patient [4].

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Finally, Materson and Chandra address the issue of the recording of blood pressure and the significance in variability of this important measurement [5]. Clearly, improved recording and interpretation of this most important biomarker will provide insight into the diagnosis and management of hypertension.

The authors and I hope that you find the comments on these topics in hypertension helpful and that it will increase your enthusiasm for following the developments in this most important healthcare problem of our time.

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