



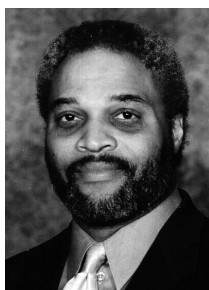
WHL · NEWSLETTER

News from the World Hypertension League (WHL).
A division of the International Society of Hypertension, and in official relations with the
World Health Organization.

No. 89, June 2003

Editorial

Hypertension in Blacks – Is it really different?



Dr. John M. Flack

Overview: Hypertension in blacks has long been recognized as occurring earlier in life, being more severe, and having closer links to pressure-related target-organ injury such as left ventricular hypertrophy, chronic kidney disease, and heart failure than in white populations. However, these

characterizations apply to the group which is highly heterogeneous rather than the distinctly unique *individual*. The extrapolation of group tendencies of hypertension in blacks to the black individual has long influenced the approach to therapy for blacks with hypertension. The imprecision and minimal relevance of this approach to optimal therapeutic selections for individual black patients will subsequently be discussed.

Physiological Correlates of Hypertension in Blacks: Physiological parameters in Blacks with hypertension have been frequently contrasted with white hypertensives. These contrasts have provided information consistent with lower circulating renin levels, vasodilatory factors, as well as higher levels of endogenous vasoconstrictors such as endothelin. Perhaps the signature physiological characterization of blacks with hypertension has been plasma volume expansion closely followed by salt sensitivity. However, despite the plethora of differences in physiological parameters and the published literature between blacks and whites with hypertension, these differences are *quantitative* rather than *qualitative*. Interestingly, there is little empirical data to support the often repeated notion that blacks are plasma volume expanded – in fact, the majority of blacks with hyperten-

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WHL News

Report on The International Conference for Arterial Hypertension and Cardiovascular Disease, May 10–12, 2003 in Brussels, Belgium

In Sub-Saharan Africa the most rapidly rising CVD is hypertension, affecting over 20 million people. Many of the leaders in hypertension in Africa attended the conference and specific outcomes were accomplished: (1) guidelines for hypertension prevention and treatment, (2) development of principles for training programs in hypertension in Africa and (3) organization of an International Forum for Hypertension in Africa. Various worldwide organizations were involved in the conference. Dr. Lemogoum was the coordinator and organizing secretariat, and Drs. Degaute and Block of Belgium were major organizers. The WHL was a sponsor and was invited to participate. Dr. Lenfant was co-chair of the scientific committee and gave opening remarks on behalf of the WHL. Dr. Mulrow was a member of the organizing committee and co-chaired a workshop on Epidemiology and Detection of Hypertension in Africa. Dr. Chockalingam lectured on Current Training Programs in Hypertension. The meeting was extremely successful and a follow-up meeting in Africa is planned for the near future. ■

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sion are not plasma volume (PV) expanded though a larger proportion are PV expanded compared to white hypertensives^{1,2}.

Race, Genetics, and Hypertension: There has been considerable speculation that the aforementioned physiological differences between blacks and whites and the more severe hypertension in blacks is a reflection of genetic differences. While it would be folly to suggest that hypertension does not have a genetic basis in blacks – it almost assuredly does, it would be similarly off-base to confer primacy to genetic explanations for the aforementioned racial differences. There are several reasons for this. First, the overwhelming majority (> 90%) of genetic variation occurs *within* rather than *between* racial groups³. Secondly, racial classifications are not based on nor are they closely aligned with genetic factors. Finally, Africans manifest the greatest genetic heterogeneity of all studied ethnic groups⁴.

Hypertension Therapeutics – Is a Unique Approach Justified?

Blood Pressure Responsiveness: Multiple studies have shown that black hypertensives manifest lesser responses to monotherapy with angiotensin converting enzyme inhibitors, angiotensin receptor blockers, and beta blockers than to diuretics and calcium antagonists⁵⁻⁸. Similarly, black hypertensives have slighter (BP) responses than whites to these same agents^{6,7,9}. However, there are several features of these studies that significantly affect the interpretation of these racial differences. First, the racial contrasts in these studies are usually not adjusted for potential confounders. This is very important because in these trials racial contrasts are usually not protected by randomization and there are significant differences between blacks and whites on variables that may influence BP response. Second, when the entire crude BP distributions are compared for blacks and whites, it becomes clear that they mostly overlap though the central tendencies are shifted. Third, in these same trials, the majority of hypertensives, both black and white, remain considerably above contemporary therapeutic BP targets, after obtaining the maximum BP response to monotherapy.

Finally, the aforementioned racial differences in BP response are ameliorated when these same agents are combined with other antihypertensive drugs, especially diuretics or calcium antagonists¹⁰⁻¹³. In our recently published

hypertension treatment guidelines we emphasized that the often held belief that treatment of hypertension in blacks is more difficult than in other groups is not valid¹⁴.

Target-Organ Protection: The observation of lower circulating renin levels in black compared to white hypertensives, in conjunction with the slighter BP response to renin-angiotensin-system (RAS) drugs, formed the basis of the belief that these same drugs would not provide target-organ protection in blacks. This speculation has resulted in the lesser use of these agents in high-risk blacks – persons with CVD and heart failure. Data from the African American Study of Kidney Disease¹⁵ (AASK) and the Study of Left Ventricular Dysfunction¹⁶ studies have convincingly proven the ability of RAS drugs to protect target-organs in blacks, even when they do not lower BP as well as comparative drugs¹⁵. In the AASK study, the exact pattern of kidney function preservation was observed in blacks with non-diabetic kidney disease as observed in studies of similar whites. That is, the angiotensin-converting enzyme (ACE) inhibitor provided the greatest protection of kidney function in the setting of proteinuria¹⁷.

Summary: Hypertension in blacks manifests quantitative differences at the level of group contrasts that do not, however, provide justification for different therapeutic decisions for individual black hypertensives. The recently released ISHIB hypertension treatment guidelines emphasizes the importance of prescribing indicated therapies for black hypertensives when medically indicated, even in the absence of data specific to blacks. Blood pressure control is an important, albeit not the only, route for target-organ protection in hypertensive blacks. The time has come to abandon the idea that lack of BP lowering efficacy and/or target-organ protection for specific drug classes can be attributed to black race. Rather, antihypertensive therapy (along with lifestyle modifications) should be prescribed for blacks based on individual characteristics – proteinuria, glomerular filtration rate – at adequate doses with the goal of attaining goal BP levels and optimizing target-organ protection.

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A complete reference list is available from the WHL website or editorial office. ■

Report from Member Leagues

The **Pakistan Hypertension League (PHL)** has life membership of 200 physicians and 50 non-physicians, as well as associate members. As its membership is derived from all branches of medicine it is thus a multi-speciality organization. A sizeable portion of the membership includes the lay public. Its mandate is to promote awareness about hypertension among the general population of Pakistan including updating of knowledge of physicians and specialists on a regular basis.

A quarterly newsletter is published by PHL and distributed throughout the country. It is designed to inform the membership about the activities of PHL and includes information about recent developments in the field of hypertension.

The PHL was founded in 1996. The PHL has six regional local chapters in all major cities of Pakistan. The PHL has an active program of education toward hypertension awareness in the general public and patients. The activities include holding of annual seminars in major cities in which interactive public awareness sessions have produced great enthusiasm in the general public. The education of physicians is imparted by scientific programs during these annual symposia which usually includes hypertension in relation to various medical specialties. The most popular events of PHL are workshops and local meetings in the clubs, mosques, schools, colleges, community halls and hospitals, where day camps are held and blood pressure is checked and relevant advice is given by senior physicians of the local PHL chapters. These sessions are well attended.

PHL is active in imparting to the physicians and general practitioners the recent advances in hypertension research and treatment. PHL has produced a consensus document concerning recognition and treatment of hypertension which has been tailored for local use. The document was generated by senior consultants from all specialities from all parts of the country. PHL has developed an algorithm for management of hypertension which has been prepared in a calendar form and is distributed free to the physicians.

A similar document and Algorithm have also been prepared by PHL for the paediatric population of Pakistan.

PHL is now well structured and is collecting data on hypertension at the national level via various day camps which are held by local chapters. A data base involving all of Pakistan is a

goal that the PHL is now actively pursuing. The future program of PHL includes research units for basic and bio-chemical research in tertiary care centres. Increasing the number of workshops for physician training in all aspects of hypertension, with special emphasis on proper technique of blood pressure measurements and expansion of the activities and number of its local chapters, is being actively pursued.

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The **Bulgarian Hypertension League** was founded in 1992. It now has 1,432 members. The League is very active with respect to educational activities:

- (1) Within a ten year period it has managed to organize 133 symposia. Most of them were carried out together with the Bulgarian National Academy of Medicine and the Bulgarian Academy of Science.
- (2) Thirty-six symposia were organized in the large towns of the country.
- (3) Six weekend schools from Friday to Sunday with an attendance of over 600 physicians were instructed in the prevention of cardiovascular risk.
- (4) Two congresses dedicated to the issues of arterial hypertension were organized.

In addition, the Bulgarian League of Hypertension prepared Guidelines for the prevention of arterial hypertension. The Bulgarian Hypertension League also took an active part in the preparation of the National Program for the prevention of Hypertension.

Currently, Prof. Choudomir Nachev, Director of a clinic in St. Anna University Hospital, is President of the Bulgarian Hypertension League. Dr. Veselka Gergova, member of the Cardiology clinics in the Internal Disease Department of the Medical University in Sofia, is the scientific secretary of the League.

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WHL News continued

World Health Report 2002

WHO Technical Report No. 916

(Diet, nutrition and the prevention of chronic disease)

These WHO reports provide useful data on blood pressure related disease burden and are a helpful resource for public health practitioners. Both reports can be ordered from WHO or be printed out via: www.who.int (online publication catalogue). ■

People

Professor R.K. Khandaker was elected as chairman of the hypertension committee of the **National Heart Foundation of Bangladesh**: Plot No. 7/2, Section-2, Mirpur, Dhaka-1216, Bangladesh.

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Impressum

The objectives of the WHL are to promote the detection, control and prevention of arterial hypertension in populations. The World Hypertension League (WHL) is a federation of leagues, societies and other national bodies devoted to this goal. Individual membership is not possible.

The WHL is a division of the International Society of Hypertension (ISH), and is in official relations with the World Health Organization (WHO).

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Calendar

2003 Annual Meeting of the British Hypertension Society (BHS)

September 15–17, 2003

Cambridge, UK

Information: Mrs. Gerry McCarthy, BHS

Fax: (+44) 20 8977 0055

E-mail: hmc@hamptonmedical.com

5th International Congress on Coronary Artery Disease

October 19–22, 2003

Florence, Italy

Information: Kenes, PO Box 50006

Tel Aviv 61500, Israel

Fax: (+972) 3 517 5674

76th Scientific Session of the American Heart Association (AHA)

November 9–11, 2003

Orlando, FL, USA

Information: Secretariat AHA

Fax: (+1) 214 706 5262

E-mail: sessions@heart.org

3rd Genova Meeting on Hypertension, Diabetes and Renal Disease

February 26–28, 2004

Genova, Italy

Information: Ms. Barbara Rossi,

ARISTEA

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E-mail: rossi@aristea.com

20th Scientific Meeting of the International Society of Hypertension

February 15–19, 2004

Sao Paulo, Brazil

Information:

www.hypertension2004.com.br

3rd International Congress on Cardiovascular Diseases

November 25, 2004

Taipei, Taiwan

Information: Dr. C. E. Chiang,

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