



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.

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Editorial

Arterial Hypertension in Childhood



Dr. Claudia M. Salgado

Essential hypertension is the most prevalent chronic disease in the world, being also a serious independent risk factor for cardiovascular disease, cerebrovascular events and renal disease. Hypertension is, thus, a public health problem all over the world¹.

Physicians are giving due attention to hypertension in children and adolescents just over the last 30 years. The addition of blood pressure measurements to routine physical examinations of children and the publication of norms for the evaluation of hypertension in childhood have revealed cases of previously undetected asymptomatic secondary hypertension, as well as of discrete elevation of blood pressure. Nowadays, it is already known that hypertension detected in some children may be secondary, for example, to renal disease, but may also indicate early onset of essential hypertension found in adults².

The prevalence of arterial hypertension (AH) in children varies widely among different reports, ranging from 1 to 13%, depending mainly on the methodology. The highest prevalence rates are found in studies that drew data from one single visit. When blood pressure is measured several times, as recommended for the diagnosis of hypertension, the prevalence rate tends to fall to nearly 1%³. Several longitudinal studies have demonstrated that the child with elevated blood pressure levels even within the normal limits, tends to show a progression during life, with higher levels than other individuals and greater probability of becoming an adult with hypertension^{4,5}. This concept, known as tracing of

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XVth Scientific Meeting of the InterAmerican Society of Hypertension April 17-23, 2005, Cancun, Mexico

Call for Abstracts

In the tradition of the Society, the meeting represents an important means for promoting interaction among basic and clinical hypertension and cardiovascular researchers from different countries for the Americas (North, Central, and South America) as well as other continents. A special emphasis of the Society is to support and encourage the participation of young investigators throughout the Americas. The Society has established the Young Investigator and Travel awards to stimulate the research and participation of young investigators in the beginning of their careers as well as the Lifetime Achievement award to recognize the contribution of senior scientists in the field of hypertension. In addition, the WHL and IASH are sponsoring a symposium on "Strategies for Prevention and Control of Hypertension in Latin American Countries" on April 17, 2005. For more information, please visit the IASH meeting website: <http://www.iash16meeting.org/>.

Important Deadlines:

Abstract submission: December 15, 2004.

Early Registration: by January 31, 2005. ■

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hypertension, is highly important because the pediatrician can identify children at a higher risk of becoming adults with hypertension, thus allowing time to initiate preventive measures at an early age.

One of the most important parameters in the studies of hypertension in children is the definition of reference values to be adopted. For the adult population, the definition of hypertension is epidemiological, and the cutoff point is determined according to the population at risk of developing morbid events. However, for children and adolescents the definition is statistical⁶. The references usually followed in clinical practice have been those reported by an American board of experts (the Task Force) and are recommended by the National Heart, Lung and Blood Institute and by the American Academy of Pediatrics. The most recent one, the Fourth Report published in August 2004, presents tables including specific normality values (50th, 90th, 95th and 99th percentiles) for each age group, sex, and height percentile⁷.

Several measurements (at least three) should be made in different occasions to classify blood pressure in children and adolescents⁷. The following must be considered:

- Normal blood pressure: < 90th percentile
- Prehypertension: 90th to < 95th or if BP exceeds 120/80 even if < 90th percentile up to < 95th percentile
- Stage 1 hypertension: 95th–99th percentile plus 5 mm Hg
- Stage 2 hypertension: > 99th percentile plus 5 mm Hg

Etiologic investigations should be conducted when a diagnosis of hypertension is made in a child. The younger the child and the higher the blood pressure levels, the higher the chances of secondary hypertension, which should thus be thoroughly investigated. Severe elevations of blood pressure levels, no matter at what age, should be even more aggressively investigated. Mild hypertension, in turn, is usually not associated with a secondary disease.

The purposes of treatment are to reduce blood pressure to below the 90th percentile and to prevent later complications of hypertension. The non-pharmacological treatment implies

changes in life style, favoring the reduction of blood pressure. It is recommended for all individuals with hypertension, the pre-hypertensives, as well as for normotensive individuals with high cardiovascular risk. The management includes weight reduction in overweight or obese individuals, increased intake of fresh vegetables, fruits, and low-fat dairy, dietary sodium reduction, increased physical activity, moderation of alcohol consumption and smoking cessation. Interventions to improve sleep quality also may have a beneficial effect on blood pressure.

Concerning the pharmacological treatment, the 4th Task Force suggests that once confirmed on repeated measures, stage 1 hypertension allows time for evaluation before initiating treatment unless the patient is symptomatic. Patients with stage 2 hypertension may need more prompt evaluation and pharmacologic therapy. Symptomatic patients with stage 2 hypertension require immediate treatment and consultation with experts in pediatric hypertension⁷. These categories are parallel to the staging of hypertension in adults – JNC 7¹.

In conclusion, the effects of several risk factors, such as hypertension, that may lead to coronary arteriosclerosis and left ventricular hypertrophy, beginning in childhood. For this reason, the pediatrician should pay special attention to the diagnosis and treatment of hypertension and other cardiovascular risk factors early in childhood. We will thus have healthier children today and a healthier adult population in the future^{8,9}.



Dr. Claudia M. Salgado
Alameda Mangubas 755
Aldeia do Vale, Goiania – GO
Brazil 74680-330

Phone/Fax: (+55) 62-522-2913
E-mail: claudia.nefro@brturbo.com

References:

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the WHL International Art Competition. Keep up on current standards by viewing the Professionals section for important information regarding hypertension guidelines and methods for controlling hypertension in populations. Educational/training videos on blood pressure measurement are on this site as well.

The thrust of the WHL's actions is in liaison with the member organizations, promoting the exchange of information among them and offering internationally applicable methods and programs for hypertension control. In this regard, go directly to the Members section for current contact information to connect with other members, within or out of your region, in order to stimulate, encourage and collaborate with each other on hypertension education, prevention, and control.

Each WHL League or Society is asked to send the current website address, email address, mailing address, and name of the current President to Dr. Mulrow's office by email (gmonhollen@mco.edu) or fax (+1-419-383-5360). This information will help us keep the WHL website up-to-date and allow us to contact all of our member organizations with important meeting information, announcements, and educational material.

In the meantime, if you know of an existing hypertension society that is not already a member of the WHL, encourage them to contact the Secretariat's office (gmonhollen@mco.edu) or click on Members, then application form, to apply for WHL membership. ■

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Launching of New WHL Website

After many months of reconstruction, updating, and revision, our new website has undergone a major facelift.

We invite you to visit our new website at

www.worldhypertensionleague.org

where you will not only be able to access the current and archived issues of the WHL Newsletter but also review abstracts from the WHL Symposium, "Community Control of Hypertension in Central and Eastern Europe," which was held April 24, 2004 in Prague, Czech Republic. Click on the Home page and view the top winners of



The World Hypertension League has designated Saturday May 14, 2005 as **WORLD HYPERTENSION DAY**. The goal is to underscore the health consequences of hypertension and to encourage people to get their blood pressure measured and, if elevated, to do something about it.

For more information, please visit the WHL website www.worldhypertensionleague.org. ■

People

Dr. Charles Curry is the new president of the **International Society on Hypertension in Blacks (ISHIB)**, Inc., 100 Auburn Avenue, NE, Suite 401, Atlanta, GA 30303, USA.

Phone: (+1) 404 880 0343
 Fax: (+1) 404 880 0347
 Website: www.ishib.org

Susan S. Kennedy is the new Chairperson of the **Nurses' Hypertension Association**. Secretary is Wendy Callister, Research Sister, Peart-Rose Hypertension Clinic, Ground Floor QEQM, St. Mary's Hospital, London W2 1NY, UK.

Fax: (+44) 20-8886 1340
 E-mail: secretary@nha.uk.net

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).

Secretariat:

Medical College of Ohio, Department of Medicine
 3120 Glendale Avenue, Toledo, OH 43614-5809, USA
 Phone: (+1) 419 383-6016, Fax: (+1) 419 383 5360
 E-mail: gmonhollen@mco.edu
 Internet: <http://www.worldhypertensionleague.org>

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Advisors to the Board:

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 M. Mohsen Ibrahim (Cairo), Developing Countries
 Jörg Pöttsch (Berlin), Communications

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Anja Kroke, Editor; Erika Pisch, Editorial Assistant

Editorial Office:

Max Delbrück Center for Molecular Medicine (MDC)
 Robert-Rössle-Strasse 10, 13125 Berlin-Buch, Germany
 Phone/Fax: (+49) 30 9406-2123
 E-mail: whl@mdc-berlin.de

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Calendar

Cardiovascular Disease Prevention VII

February 8–10, 2005
 London, UK

Information: Hampton Medical Conferences Ltd.
 113-119 High Street, Hampton Hill
 Middlesex, TW12 1NJ, UK
 Fax: (+44) 20 8979 6700
 E-mail: cvdp@hamptonmedical.com

14th Biennial Southern African Hypertension Congress

March 5–7, 2005

Cape Town, South Africa

Information: Dr. Vicki Pinkney-Atkinson
 PO Box 122, River Club, 2149
 South Africa
 Fax: (+27) 11-706-4915
 E-mail: sahs@absamail.co.za

10th Scientific Meeting of the EASD Hypertension in Diabetes (HID) Study Group

March 31 – April 2, 2005

Istanbul, Turkey

Information: Dr. Rita Rahmani
 Meir Hospital
 Dept. of Medicine D
 Tel Aviv University, Israel
 E-mail: ritam@clalit.org.il

WHL Regional Meeting with the 9th Annual Meeting of the Egyptian Hypertension Society

April 6–9, 2005

Cairo, Egypt

Information: Mrs. Rehab Mohammad
 1 El-Diwan Str., Garden City,
 Cairo 11519, Egypt
 Fax: (+202) 794-8879
 E-mail: ehs@link.net

Annual Scientific Meeting of the SHAM and the IASH and WHL/IASH Satellite Symposium

April 17–23, 2005

Cancun City, Quintana Roo, Mexico

Information: Dr. Martin Rosas
 Sociedad de Hipertensión Arterial de México (SHAM)
 Fax: (+55) 55 73 09 94
 Email: martinrp02@yahoo.com.mx