



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. 80, December 2001

Editorial

Preeclampsia-eclampsia: a preventable killer of mother and babies



Dr. James M. Roberts

Preeclampsia syndrome, occurring in 3 to 5% of pregnancies, remains a leading cause of maternal and neonatal mortality worldwide¹. The disorder was described 2000 years ago as pregnancy associated seizures cured by delivery². It was originally considered a seizure disorder and called eclampsia for its “lightning like” occurrence². Eventually, however, eclampsia was recognized to be only one component of a syndrome (preeclampsia) that increased maternal and infant morbidity and mortality even in the absence of seizures. Preeclampsia is recognized by increased blood pressure and proteinuria but is far more than hypertension in pregnancy³. The syndrome effects virtually all organ systems. The disease is progressive and in its advanced form leads to maternal renal failure, disseminated intravascular coagulation, liver failure, pulmonary edema and death¹. The fetus is also affected by reduced placental blood flow and is at increased risk for intrauterine growth restriction and stillbirth. Despite these profound effects of the fully developed syndrome, early stages of preeclampsia are not associated with symptoms. Early recognition requires maternal evaluation to recognize the signs of increased blood pressure and proteinuria. This early recognition is crucial since preeclampsia is completely reversible with delivery. The major impact of preeclampsia in developed countries is increased perinatal mortality. Although delivery cures progressing disease, this results in the delivery of a premature infant in the 10% of births occurring before 34 weeks gestation. Fifteen percent of preterm births

result from indicated deliveries due to preeclampsia⁴. In developing countries the story is very different and even more concerning. Preeclampsia-eclampsia accounts for at least 15%⁵ and in some locales up to 80% of maternal deaths. These maternal deaths are especially tragic, as almost all are preventable. What can be done?

In developing countries the primary goal is to prevent maternal deaths. The first requirement is to improve prenatal care. Simple measures, blood pressure determination and tests for urinary protein, allow recognition of the disorder. Only with this recognition can intervention by early delivery prevent progression. Although the measures necessary to recognize preeclampsia are simple, providing the framework to deliver adequate prenatal care can be complex. Well organized public health care is needed to ensure services and remove barriers to care. Women and their partners must be educated to understand that prenatal care is an important component of a successful pregnancy. Overcoming barriers to care, approaches to management and education must be culturally sensitive. Strategies to address these issues through health services (outcomes) research have only rarely been applied to the study of preeclampsia. This

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research and subsequent interventions require commitment of scarce resources in developing countries. Nonetheless, “low tech” assessments and interventions by individuals with appropriate but not extensive training can strikingly reduce maternal deaths with additional multiplier effects on the well being of families.

Training of prenatal preventive care providers must be complemented by education of individuals responsible for the care of sick woman. Care providers for sick women are both those who provide hands on care and also those who direct health care policy. There are currently shortcomings in this education as indicated by the response to a recent study of the pharmacological management of eclamptic seizures. Seizures are a major factor contributing to maternal death in developing countries. The Eclampsia Collaborative Project, conducted in developing countries, found that there is an evidenced based “best way” to care for these women⁶. The project tested whether magnesium sulphate, phenytoin or benzodiazepam were more effective at preventing recurrent seizures in eclamptic women. Magnesium prevented seizures more effectively and safely. Later metaanalysis also indicated that magnesium prevented maternal death⁷. Despite the fact that this study was designed to prove efficacy in developing countries, the strategy has not been widely implemented in these nations. Magnesium is an inexpensive generic form of therapy and its increased use will, therefore, not be championed by the pharmaceutical industry. Increased use will require health policy decisions in developing nations. The World Health Organization, the Federation Internationale de Gynecologie et d’Obstetrique and the International Society for the Study of Hypertension in Pregnancy jointly advocate that health care administrators implement this strategy of proven effectiveness in their countries.

Quality of care assessment can also reduce perinatal mortality in developed countries. However, a major reduction of iatrogenic prematurity is largely unattainable at our current state of knowledge. The pathophysiological changes of preeclampsia are present long before clinically evident disease. This probably explains why treatment of the syndrome, once recognized, is largely palliative. The pathophysiological changes of preeclampsia leading to maternal and fetal mortality and morbidity are largely

determined before clinically evident disease. This has stimulated preventive (early) treatment with agents such as calcium and aspirin. Although large multicenter studies have not supported the usefulness of these therapies⁸⁻¹⁰ the results of small studies and large metaanalyses suggest there may be subgroups of patients that would benefit^{11,12}. In addition, one small study directed at reducing oxidative stress from early pregnancy yielded promising results, reducing the frequency of preeclampsia in high-risk women¹³. The safety and efficacy of this therapy will soon be tested in larger studies. Currently all of these preventive strategies await further assessment before they are made part of clinical practice.

What must be done? The ravages of preeclampsia on mothers and babies can only be reduced by increased understanding of the disorder and determining how to affect appropriate management. Reduced perinatal mortality requires increased fundamental understanding of the disorder. The approach to reduce maternal mortality, however, is well established, and includes adequate prenatal observation and expeditious delivery. Health services research must determine how to most effectively facilitate this management in developing countries. It is mandatory that health care agencies invest in methods to determine, then implement, approaches to improve prenatal care. When evidence is available, as with magnesium therapy, that a “best treatment” is available and tested in developed countries, health policy agencies should act to incorporate these into clinical management. It is tragic that women are dying in the prime of life when reasonably low-tech management strategies could prevent these deaths.



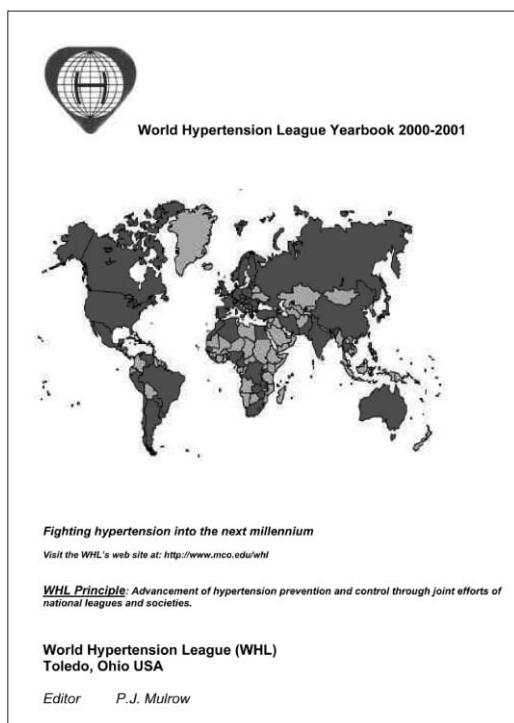
James M. Roberts, MD
 University of Pittsburgh
 Dept. of Obstetrics & Gynecology
 204 Craft Ave., Pittsburgh, PA, USA

Phone: (+1) 412 641 1427
 Fax: (+1) 412 641 1503
 E-mail: Jimrob+@pitt.edu

A reference list is available upon request from the Newsletter editorial office in Berlin. ■

WHL News

New WHL Yearbook “Fighting hypertension into the next millennium” now available



The WHL has published a new Yearbook 2000-2001 on the principle “Advancement of hypertension prevention and control through joint efforts of national leagues and societies”.

If you wish to obtain a copy please e-mail (gmonhollen@mco.edu) or fax (+1 419 383 5360) the Secretariat’s office in Toledo. Be sure to include your full mailing address. The Yearbook may also be downloaded in pdf format from the WHL’s web site at: <http://www.mco.edu/whl>. ■

People

The address of the **Philippine Society of Hypertension** has changed: Unit 309, Amberland Plaza, Julia Vargas Street, Ortigas Complex, Pasig City 1605, The Philippines.

Phone: (+632) 687 7073
 Fax: (+632) 631 7970
 E-mail: phihyper@pworld.net.ph

The **Lithuanian Hypertension League** recently has established its web site: <http://www.lhl.lt>. The president’s new e-mail address is gesak@kmu.lt.

WHL News

Report from the II Dominican Congress and V Caribbean Meeting in Santo Domingo

The II Dominican Congress – V Caribbean Meeting was held in Santo Domingo from May 31 through June 2, 2001. The Meeting began with several papers on the pathophysiology of hypertension. Subsequent talks emphasized the evaluation and management of hypertension. Several important papers on the community control of hypertension were also presented. Dr. Patrick J. Mulrow, representing the World Hypertension League, presented lectures on hypertension in the elderly, and also on diabetes and hypertension.



Dr. Patrick J. Mulrow, Dr. Guarocuya Batista
 (from left to right)

Dr. Guarocuya Batista, President of the Dominican Society of Hypertension, and his colleagues should be congratulated for organizing a successful and important educational meeting.

Patrick J. Mulrow
 Secretary General ■

People continued

The **Nigerian Heart Foundation** has new board members: Professor Oladipo O. Akinkugbe was elected president, Dr. Kingsley K. Akinroye is vice president and Sola Oyetunji is the administrative secretary. The Foundation’s address has also changed: 4, Akanbi Danmola Street, Off Ribadu Road, PO Box 55775, Ikoyi, Lagos, Nigeria.

Phone: (+234) 1 269 4283
 Fax: (+234) 1 269 4283
 E-mail: nigerianheartfoundation@hyperia.com
 Web site: <http://www.nigerianheart.org>

People continued

The **Zimbabwe Hypertension Society** has a new address: 201 Medical Centre, 52 Baines Avenue, Harare, Zimbabwe.

Phone: (+263) 4-795 491/2
 Fax: (+263) 4 795 116
 E-mail: kbhagat@healthnet.zw

At the end of March 2001, Professor A. Tourkantonis was elected president of the **Hellenic Society of Hypertension**, 111, Vas. Sofias Ave, 115 27 Athens, Greece.

Phone: (+30) 1 646 9358
 Fax: (+30) 1 640 0767
 E-mail: gramatia@hypertasi.gr

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.mco.edu/whl>

Board Officers:

Claude Lenfant (Bethesda), President
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Advisors to the Board:

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

The WHL Newsletter is published bimonthly by the World Hypertension League

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: (+49) 30 9489 4533, Fax: (+49) 30 9489-4589
 E-mail: whl@mdc-berlin.de

ISSN 1013-1639 Production and distribution:
 Georg Thieme Verlag Stuttgart New York

The WHL Newsletter is published with the support of



Calendar

6th Annual Meeting of the Egyptian Hypertension Society

April 3–5, 2002

Cairo, Egypt

Information: Dr. Hussien H. Rizk
 Scientific Program Director
 25, Abdelhalim Hussien Street
 Cairo, 12311 Egypt
 Fax: (+202) 338 8348
 E-mail: hussienrizk@hotmail.com

2nd European Conference on Management of Coronary Heart Disease

April 13–15, 2002

Nice, France

Information: Castle House Medical Conferences
 Linden Close, Tunbridge Wells
 Kent TN4 8GG, UK
 Fax: (+44) 1892 517 773
 Web site: www.castlehouse.co.uk

7th Scientific Meeting of the Hypertension in Diabetes (HID) EASD Study Group

April 26–27, 2002

Tirrenia, Pisa, Italy

Information: Dr. John R. Petrie, Glasgow HID Study Group, Univ. Dept. of Medicine Royal Infirmary, Queen Elizabeth Building
 Glasgow G31 2ER, UK
 Fax: (+44) 141 211 0414
 E-mail: j.r.petrie@clinmed.gla.ac.uk

19th World Hypertension League Council Conference and Workshop on Hypertension & Obesity

June 22, 2002

Prague, Czech Republic

Information: Dr. Patrick J. Mulrow
 Medical College of Ohio
 (for address see impressum)

22nd Meeting of the European Society for Microcirculation "The Microcirculation and Vascular Biology"

August 28–30, 2002

Exeter, Devon, UK

Information: The Secretariat
 Hampton Medical Conferences Ltd.
 127 High Street
 Teddington, Middlesex TW11 8HH, UK
 Phone: (+44) 20 8977 0011
 Fax: (+44) 20 8977 0055
 E-mail: esm@hamptonmedical.com