



WHL · NEWSLETTER

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Editorial

Korotkov sounds – what do we know about this 100 year old discovery?



Nikolai Sergeievich
Korotkov (1874–1920)

This year, 2005, is the 100th anniversary of one of the most famous discoveries in the field of hypertension: the auscultative method of blood pressure measurement. The method, named after the Russian physician and scientist Nikolai Sergeievich Korotkov (1874–1920), has now

been widely used for one century. Unfortunately, while the method itself and the name of its inventor are world famous, much less is known about the history of this outstanding discovery and the real role of Korotkov in the interpretation of the discovered sounds and the implementation of the new method into clinical practice.

Korotkov was only 31 years of age when he made a short presentation at the Scientific Meeting of the Military Hospital of the Imperial Military Academy about an easy, non-invasive method of blood pressure measurement. This was on November 5, 1905. The brief title of his presentation was “Concerning the problem of the methods for investigating blood pressure”. He described the following sequence of sounds: first sound, ten murmurs, loud sounds, decreasing sounds and complete disappearance. These observations are now classified as different phases of the Korotkov sounds. Later, Russian scientists and investigators all over the world continued to find an explanation for the auscultative phenomenon. Although our modern understanding of the nature of the sounds has changed, the method remains the standard for hypertension diagnosis and management. Even today, 100 years later, devices are being devel-

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WHL News

Report from the 6th International Symposium on Hypertension and Related Diseases from October 15–18, 2004 in Beijing, China

On the occasion of this Symposium, the World Hypertension League (WHL) held a Regional Meeting on the Prevention of Hypertension. It was chaired by Prof. Liu Lisheng, Vice President of the WHL, Prof. Zhou Beifan, and Dr. Claude Lenfant, President of the WHL. There were 8 presentations describing research and public health activities in the respective countries.

Dr. Lenfant summarized 4 studies from the United States which exemplify the significance and effectiveness of programs to reduce excess weight, to encourage physical exercise, and to reduce salt and alcohol consumption to maintain, or reduce blood pressure (BP) to a normal level (i.e. <140/85 mmHg). He noted that to control hypertension we have the choice between pharmacological and preventive interventions: he concluded that preventive interventions are effective and far less costly than pharmacological regimens.

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oped to measure Korotkov sounds. There are only a few diagnostic methods in medicine which survive for 100 years without becoming historical. The importance of Nikolai Korotkov's discovery can be compared with the invention of X-ray or ECG.

St. Petersburg, the city where the scientist lived and worked, decided to organize an International Meeting in September 2005, devoted to the investigation of hypertension from Korotkov's time to our days (please refer to the calendar section for details of the Meeting). This meeting is dedicated to his memorial and we hope it will help the world to become better acquainted with this outstanding man.

Eugene Shlyakhto, Alexandra Conrady
 Research Institute of Cardiology
 St. Petersburg, Russia

The life of N.S. Korotkov in brief

Nikolai Sergeievich Korotkov was born in Kursk, Russia, on February 13, 1874. He entered medical school in 1893, graduated at the Moscow University in 1898, and then worked at the surgical clinic of the Moscow University. He began the work on his doctoral thesis in 1905, only a few months before the presentation of his discovery at the Imperial Military Academy, and received his doctorate in 1910. In the following years he served as a surgeon at various locations before he became physician-in-chief of the Metchnikov Hospital in Leningrad. There he died in 1920 at the early age of 46.

Bibliography:

- To the question of methods of determining the blood pressure (from the clinic of Professor S. P. Federov) [Russian]. *Reports of the Imperial Military Academy* 1905, **11**: 365-367.
- Contribution to the methods of measuring blood pressure; second preliminary report 13 December 1905 [Russian]. *Vrach Gaz* 1906, **10**: 278.
- Experiments for determining the efficiency of arterial collaterals. Stremennaia, 12 St Petersburg. P P Soykine's Press, 1910. Segall HN. Experiments for determining the efficiency of arterial collaterals by N C Korotkoff. Montreal: Mansfield Book Mart, 1980: 265. (Preface biographical notes and editing of translation from Russian). ■

Report from 6th International Symposium continued

Prof. Choudomir Nachev, President of the **Bulgarian Hypertension League**, reported on the ongoing activities in his country: research, education and development of guidelines to ensure effective control of hypertension. The targets for action are high risk individuals as well as the general population. It became very clear that education and community involvement are very effective tools. For example, clubs to foster positive life-style "Move and Win" have been developed. A recent evaluation after 8 years has shown that average BP and salt consumption have decreased while physical activity, vegetables, fruits and fish consumption have increased. Prof. Nachev stated that so far the results are positive, but not yet "satisfactory"; revised policies and new approaches are being developed to increase and accelerate the positive emerging trends.

The next speaker was Prof. Padmavati, President of the **All India Heart Foundation**, and Director of the National Heart Institute, India. She began her presentation with an overview of the hypertension prevalence in India since 1942 (34 successive surveys). However, because the accepted level of normal BP has changed during this long period of time, comparing prevalence and its changes is not possible. Today, the overall prevalence of hypertension is 30.9%. India is undergoing an important demographic transition with increasing life expectancy, urbanization, changes in life-styles and dietary habits. Obesity, smoking and alcohol consumption all bear on the hypertension incidence and prevalence. The country and several relevant professional organizations are using the media to develop effective community programs.

Prof. Khandaker, Chairman of the **Hypertension Committee of the National Heart Foundation (NHF) of Bangladesh** reported on two points. First, that there is a very effective synergism and cooperation between the Government of Bangladesh and the NHF. Namely, electronic and printed media are used effectively to publicize the risks of hypertension. Second, due to the economic situation of Bangladesh, the importance and use of preventive interventions are maximized.

Dr Yuan-Teh Lee from the **Taiwan University** gave a very interesting report on the status of

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Report from 6th International Symposium continued

hypertension in Taiwan. Recent and significant progress was noted. In a 2002 survey, the prevalence of hypertension was 25% in men and 18% in women. Despite this relatively low prevalence, what is most significant are the increases in awareness, treated, and controlled hypertension from 1993 to 2002:

Hypertension			
	Awareness	Treated	Controlled
Men	43 to 59%	32 to 47%	15 to 21%
Women	53 to 79%	45 to 64%	22 to 29%

Efforts are underway to further improve these numbers and mainly consist of programs to: improve and augment hypertension control, develop community-based strategies and develop of clinical guidelines.

Prof. A. Berbari from the **American University in Lebanon** presented data on the rate of hypertension, obesity and diabetes in his country. The population of Lebanon is experiencing an increase in BMI. In reaction to this trend, the Lebanese Hypertension League has been working with national professional societies and practicing physicians to adopt specific management approaches to improve prevention and pharmacological regimens.

Prof. Zhou Beifan from the Fu Wai Hospital and the Beijing Union Medical College presented the **Chinese guidelines** for the prevention and control of overweight and obesity in Chinese adults and its impact on public health. This very important and timely presentation showed the increase of the BMI in the Chinese population; both the incidence and prevalence of overweight are increasing in all segments of the population: north and south, men and women, and rural and urban. She pointed out the consequential increase in cardiovascular disease and diabetes risk factors, including hypertension. In response to this emerging epidemic the Chinese health officials have developed guidelines emphasizing the non-pharmacological approaches to prevent and control overweight as well as possible drug interventions in the extreme and resilient cases.

Dr. Pandey, President of the **Nepal Hypertension Society** and Chairman of the Preventive Cardiology Group of the Asian Pacific Society

of Cardiology presented epidemiological data from Nepal. Nepal is the newest member of the WHL. The data presented were collected in 4 regions of Nepal in 1983. The reported prevalence of hypertension (>165/95 mmHg) was 10% in urban Kathmandu and 5.3% in the mountain regions. In his conclusions, Dr Pandey pointed out that blood pressure was not influenced by salt intake, he speculated that the intense physical activity due to the terrain of Nepal may mute the influence of sodium intake. The recently formed Nepal Hypertension Society is planning another survey of the population with a focus on data about awareness, treatment and optimal control.

Finally, data from the **2002 Chinese Nutrition and Health Survey** were presented by Prof. Liu Lisheng. Details can be found on the WHL website.

The entire WHL Regional Meeting gave a most interesting and informative view of the state of hypertension in the countries that were represented. It was evident that in all these countries very pro-active programs are planned to reduce the prevalence of hypertension. There is no doubt that the audience benefited from the presentations as was evidenced by the intensity of the discussions during the sessions and breaks. The WHL is very pleased to have been associated with this Symposium and all the League's members who participated extend their gratitude and thanks to Prof. Liu Lisheng to have made this possible, and for the very warm hospitality that she and her colleagues extended to the visitors.



Dr. Claude Lenfant
President

New WHL Member

The WHL is pleased to welcome the **Nepal Hypertension Society** as a new member:

Dr. M. R. Pandey, President, PO Box 2587,
Kathmandu, Nepal.

Phone: (+977) 1 426 2879
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E-mail: msmt@healthnet.org.np

People

The **Thai Hypertension League (THL)** has been changed formally to the **Thai Hypertension Society (THS)**

Dr. Yingnoi Uboldejpracharuk has been elected President of the THS. Secretary General is Dr. Taworn Suithichaiyakul.

The address of the society is: 10th Floor, Royal Golden Jubilee Building, 2 Soi Soonvijai, New Petchburi Road, Bangkok Huaykwang, Bangkok 10320, Thailand.

Tel. (+66) 0-2716-6448

Fax (+66) 0-2716-6449

Website: <http://www.anet.net.th> ■

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

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

April 6–9, 2005

Cairo, Egypt

Information: Mrs. Rehab Mohammad

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Cairo 11519, Egypt

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12th Annual Scientific Meeting of the Nigerian Hypertension Society “Optimal Management of Hypertension”

April 21–22, 2005

Port Harcourt, Nigeria

Information: Dr. Basden J. C. Onwubere

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XIIIth Annual Scientific Meeting of the SHAM and the XVIth Scientific Meeting of the IASH

April 21–23, 2005

Cancun City, Quintana Roo, Mexico

Information: Dr. Martin Rosas

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15th Congress of the European Society of Hypertension

June 17–20, 2005

Milan, Italy

Information: AISC & MGR – Aim Group

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N. Korotkov International Memorial Meeting

September 15–17, 2005

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