Recent Clinical Trials: Do results indicate a change in recommendations for initial therapy of hypertension?

Recent trials have helped to clarify indications for the initial pharmacologic therapy of hypertension. The 1996–97 recommendations of the Joint National Committee in the United States suggest diuretics or beta-blockers as initial therapy unless specific contraindications for the use of these agents exist. This recommendation was based on the results of randomized clinical trials.

The WHO-ISH recommendations of 1999 suggest the use of any one of five classes of drugs, i.e., diuretics, beta-blockers, alpha blockers, ACE inhibitors or calcium channel blockers as initial treatment. Based on recent trial results, both sets of recommendations should be modified.

Within the past two years several large randomized morbidity/mortality outcome studies comparing different antihypertensive agents have been reported. These trials indicate that:

1. Diuretics and beta-blockers appear to be as effective in reducing morbidity/mortality as other agents. (Trials: STOP-2, UKPDS, INSIGHT, NORDIL)

2. The use of an alpha blocker results in more cardiovascular events, especially congestive heart failure, when compared to a diuretic. (ALLHAT-Trial)

3. The use of an ACE inhibitor results in fewer myocardial infarctions and episodes of heart failure than calcium channel blockers in the elderly and in diabetic patients. (Trials: FACET, ABCD, STOP-2)

4. While overall cardiovascular events are similar when a dihydropyridine calcium channel blocker is compared to a diuretic, there were fewer instances of heart failure and myocardial infarctions with a diuretic. (INSIGHT-Trial)

When a diuretic was compared to a non-dihydropyridine calcium channel blocker, there were fewer strokes but a trend toward an increase in myocardial infarctions and heart failure with the calcium channel blocker. All of the newer trials use multiple medications to achieve goal pressures; they were not studies of mono therapy.

Based on these new data, what should the clinician do regarding initial therapy of hypertensive individuals?

Evidence supports the use of diuretics and beta-blocker agents, which are generally well tolerated and are the least costly of the antihypertensive medications, and reduce morbidity/mortality to the same degree as the newer drugs, i.e., ACE inhibitors and calcium channel blockers, continued on page 2
Editorial continued

as initial therapy for most patients. Alpha blockers should be reserved for special circumstances. The use of ACE inhibitors or ACE inhibitor/diuretic combination can also be considered as a preferred choice for initial therapy, especially in high-risk patients. Calcium channel blockers lower blood pressure effectively and are generally well tolerated. Their effect on coronary heart disease events and heart failure appears to be less favorable than with ACE inhibitors, diuretics or beta-blockers. Some data do suggest an equal or greater reduction in strokes.

There are, at present, no long-term outcome data available on the angiotensin receptor blockers. The newer data have important implications for the management of large numbers of patients. A majority can be treated to goal levels with relatively less expensive agents. Management usually will require the use of two different medications, either separately or as a combination. Results of the ongoing ALLHAT trial in the U.S. should help clarify further the exact roles of various medications in the therapy of hypertension.

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UKPDS. BMJ 1998; 317:703-713.

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

WHL News

Report from the WHL Regional Meeting on January 23rd, 2001 in Cairo, Egypt

Following the courteous invitation of Dr. M. Mohsen Ibrahim, president of the Egyptian Hypertension Society, this WHL Regional Meeting was held in association with the 5th Annual Scientific Meeting of the Egyptian Hypertension Society.

Dr. M. Mohsen Ibrahim, Dr. Peter Sleight (from left to right)

The Regional Meeting was divided into three parts, starting with lectures about problems associated with hypertension prevalence and control in the region and worldwide. This was followed by presentations from several countries about the epidemiology of hypertension (HT) in their country and finally, the possibilities of cooperations for controlling HT in the region were discussed in a workshop.

In his opening words Dr. Ibrahim noted that cardiovascular diseases (CVD) have reached an epidemic proportion in the region. As an example, he reported that CVD advanced from rank 5 to rank 1 in the causes of mortality in Egypt between 1960 and 1997.

The growing importance of CVD in all parts of the world was further highlighted by a talk from Dr. P. Sleight, the former WHL President. Presenting data from several studies, he pointed out the need for both political and medical education for achieving the required lifestyle changes in order to reduce the disease rates. Dr. Arun Chockalingum from Canada, the WHL Advisor for the Patient Education Project, stressed in his talk the importance of patient education for prevention and control of CVD and HT.

Data reported from different counties in the region made it apparent that hypertension has become a major health issue all over the region.
Epidemiology in Algeria
by Dr. Salem BenKhedda

Dr. BenKhedda reported that there is a lack of epidemiological data on HT in his country. Estimates from a study in 1992, however, indicated a prevalence of about 17%. Interestingly, he reported a female predominance of HT, even after adjustment for age and body mass. The highest rates of HT were observed among illiterates.

National data on Hypertension in Iran
by Nizal Sarraf-Zadegan

In her introductory comments, Dr. Sarraf-Zadegan described the increase in CVD in Iran between 1981 and 1995. HT prevalence rates varied considerably by region, with the lowest rates being observed in rural areas. Throughout the country, the HT control rate was low, only 15% or less. The need for better HT awareness and control was stated and a national plan for HT control introduced.

Hypertension, Prevalence, Awareness, Treatment and Control among United Arab Emirates citizens: preliminary results of a prospective analysis of a population based study
By Yassin Ibrahim El-Shahat

Dr. El-Shahat presented initial data from the National Epidemiological Survey on Hypertension. The total prevalence of HT was estimated to be 33.1%, with marked increases in HT prevalence with age. Those between 60 and 69 years of age had prevalence rates between 60 and 70%. HT was more prevalent in men than in women. The awareness of HT was 47%, and controlled HT was found in 27% of the patients.

Yemen: Does Khat chewing affect the severity of hypertension among Yemeni patients?
By Mohamed Al-Noami

Despite the lack of epidemiological data, Dr. Al-Noami concluded from recent hospital data that the prevalence of HT has increased in Yemen during the last 3 decades to prevalence estimates of about 26%. As important risk factors for HT, he named the high altitude, dietary factors, and the habit of Khat chewing. Khat, the leaves of the plant Catha edulis, contains the alkaloides cathinone and is chewed by many Yemenitic men and women for its stimulating effects. In a study it was observed that those with regular and frequent use of Khat had significantly higher blood pressure. Khat was also found to increase the severity of HT.

Participants of the WHL Regional Meeting in Cairo:

Anja Kroke
Editor, WHL Newsletter

Hypertension Initiative in Uganda

During November 20–22, 2000, the first international conference on hypertension, stroke and preventive cardiology was held in Kampala, Uganda. The meeting was attended by 135 doctors from all parts of Uganda and by international cardiologists from USA, Canada and UK. At the same occasion, the Uganda Hypertension League was launched.

The presentations included plenary morning sessions on epidemiology, evaluation and treatment of hypertension, dyslipidemias, smoking and cardiovascular diseases, diabetes and hypertension, and pregnancy associated hypertension. The keynote address was on “Prevention and control of cardiovascular diseases in developing countries: Problems, challenges and strategies for Africa in the 21st century”.

The afternoon sessions were devoted to group discussions on topics such as strategies for legislation on food labeling, smoking in public places, tobacco advertisement, exercise at school, strategies for promoting healthy lifestyles and awareness, access to simple drugs for prevention of cardiovascular diseases, strategies for early recognition of risk factors for cardiovascular diseases, strategies for early detection of hypertension and strategies for early and proper treatment of hypertension. There were three major achievements at the end of the conference:
Hypertension Initiative in Uganda continued

(1) Medical doctors were given up-to-date information on many important topics.
(2) The groups developed guidelines for treatment of hypertension in Uganda.
(3) Modalities for formation of the Uganda Hypertension Society were discussed and 100 doctors registered as willing founding members once the society is legally established.

Another meeting in May 2001 has been planned. This meeting will emphasize the prevention and control of non-communicable cardiovascular diseases, particularly hypertension, stroke, coronary artery disease, diabetes and rheumatic heart disease.

For further information, please contact Professor Roy D. Mugerwa at profrdm@imul.com or the Newsletter editorial office in Berlin.

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

2nd Dominican Congress and 5th Caribbean Meeting on Arterial Hypertension
May 30 – June 2, 2001
Santo Domingo, Dominican Republic
Information: Dr. Guarocuya Batista del Villar, Dominican Society of Hypertension
Av. Independencia 301, Santo Domingo
Fax: (+809) 732 0997
e-mail: guaro@batista@codetel.net.do

2nd Baltic-Nordic Meeting on Hypertension
September 21–23, 2001
Riga, Latvia
Information: Meeting Secretariat
Latvia Tours Congress & Conference Dept.
8 Kalku str., Riga, LV-1050, Latvia
Fax: (+371) 7820 020
Web Site: www.latviatours.lv/hypertension

55th Annual Fall Conference and Scientific Meeting of the Council for High Blood Pressure Research
September 22–25, 2001
Chicago, IL
Information: Scientific Conferences
American Heart Association,
7272 Greenville Avenue,
Dallas, TX 75231, USA
Fax: (+1) 214 373 3406
Web Site: www.americanheart.org/Scientific/confer

2nd International Symposium on Obesity and Hypertension
October 25–27, 2001
Berlin, Germany
Information: Dr. Arya M. Sharma
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25th Scientific Meeting of the German Hypertension Society
November 28 – December 1, 2001
Bielefeld, Germany
Information: Prof. Dr. R.E. Kolloch
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