



Recent Developments in Hypertension New Guidelines for Hypertension

The JNC 7 guidelines were published in 2003, and a lot has changed since then. Two new guidelines are of note, because they make recommendations substantially different from JNC 7, one from the American Heart Association, and the other from the European Society of Hypertension.

1. Treatment of Hypertension in the prevention and management of ischemic heart disease. Rosendorff et al, *Circulation* 2007; 115: 2761-2788.

The new recommendation here is that “high risk” individuals, defined as those patients with known coronary artery disease, or with “CAD risk equivalents” (carotid artery disease, peripheral arterial disease, or abdominal aortic aneurysm, or a 10 year Framingham risk score of more than 10%) should have their blood pressure lowered to less than 130/80 mmHg.

While observational trials certainly suggest that risk is lower at very low levels of BP, the evidence from interventional trials that support this argument is thin. The main support comes from the CAMELOT trial, which was performed in patients with documented CAD, in which the primary outcome was change in the volume of atheromatous plaque measured by intravascular ultrasound. The main finding was that the patients with the lowest blood pressures at the end of the trial had the greatest regression of plaque volume. The AHA statement reviewed the possibility of the “J-curve” phenomenon (increased CAD risk at very low pressures), and concluded that it was unproven, but advised caution in lowering the diastolic pressure to less than 60 mmHg.

2. European Society of Hypertension 2007 Guidelines for the Management of Arterial Hypertension. *Journal of Hypertension* 2007; 25: 1105-1187

The trend towards a lower target blood pressure is also apparent here, where it is suggested that “Antihypertensive treatment should be more aggressive in diabetics, in whom a target blood pressure of <130/80 mmHg appears a reasonable one. Similar targets should be adopted in individual with cerebrovascular disease and can at least be considered in patients with coronary disease”. The basis for the recommendation about stroke patients was the PROGRESS study, which showed that lowering the blood pressure in already normotensive subjects reduced the likelihood of recurrent strokes.

Another topical issue is the use of beta blockers, which the British Hypertension Society have stated “are no longer preferred as routine initial therapy for hypertension” (see their web page <http://www.bhsoc.org/> for more details). The European guideline says: “Thus beta-blockers may still be considered an option for initial and subsequent antihypertensive treatment strategies. Because they favor an increase in weight, have adverse effects on lipid metabolism and increase (compared with other drugs) the incidence of new onset diabetes, they should not be preferred, however, in hypertensives with multiple metabolic risk factors including the metabolic syndrome...”

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We plan to send the newsletter to our members in the Greater New York area on a regular basis. We want to keep you informed about a number of activities, including recent developments in the field of hypertension, clinical trials being conducted in our area that are looking for patients, and activities of the Eastern Regional Chapter and other organizations in

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We all have a hard core of patients who are on 5 or 6 antihypertensive drugs, and who come to our clinics time after time with blood pressures of 160/85 or even higher. A new randomized double blind trial (The Rheos Pivotal Trial) offers new hope for these patients. It uses an implantable pacemaker with electrodes wrapped around the carotid arteries to stimulate the baroreceptors afferent nerves. The idea was first tested in the 1960's, and there were some dramatic successes, but it was dropped because of technical problems. A start-up company in Minnesota, CVRx, has revived the idea, and obtained very encouraging results in pilot studies conducted in Europe and the US. In 45 patients with refractory hypertension, who were taking 5-6 drugs, and

had a baseline blood pressure of about 180/110 mmHg, the average reduction after 1 year was 24/17 mmHg.

The Rheos Trial was designed in conjunction with the FDA, and will recruit 300 patients in the US and Europe. Dr Tom Pickering is the co-principal investigator for the trial. All patients will have the pacemaker implanted; two thirds of them will have the device switched on at 1 month after the surgery, and one third at 6 months. The major objective of the trial is to show a difference of 10 mmHg in systolic pressure between the two groups at 6 months. This may not sound like very much, but we expect much bigger changes in most patients, and such changes will have a huge effect on their risk of events.

There will be about 50 sites altogether where the implantations will be done. There are two in the Greater New York area who are ready to enroll patients. In Manhattan, the site is at Columbia University Medical College (Contact Sujith Kuruvilla MD, 212-342- 5503 sk2856@columbia.edu or Daichi Shimbo MD, 212-342-4492), and in New Jersey is at Hackensack (contact Mary Ann Caravaglia RN, 201-336-8021- mcaravaglia@humed.com). There is no cost to the patients resulting from their participation.

Eastern Regional Chapter News

Young Investigators Attended the Annual ASH meeting in Chicago

A highlight of the Chapter's year is the Young Investigators' Award evening, when scientists in training compete for two awards, one basic science and one clinical, in hypertension research. This year the meeting was in January at the Yale Club, and the Clinical Research Award was shared by Aldo Peixoto, MD from Yale and Tanya Spruill, PhD from Columbia. Harpreet Singh, PhD from New York Medical College received the Basic Science Award. We sponsored the travel of all three winners to the annual ASH meeting in Chicago in May.

Fulfilling our Mission

The mission of the Chapter is to improve the awareness and control of hypertension in the Greater New York area, and we need your help!

We are inviting your help in getting out the message about hypertension to hospitals in the New York area. The plan is to educate the healthcare providers (attending physicians, residents, nurse practitioners etc) in the practical aspects of improving hypertension control and

preventing its consequences. We are writing to the chairmen of medicine in the New York area to offer to give grand rounds and other didactic programs in their hospitals. The emphasis is not on the large academic centers, but the smaller hospitals in areas where the rates of hypertension control are particularly poor. We are seeking educational grants from some of the pharmaceutical companies to help support this program.

How You Can Help

If you are interested in participating in this program, we invite you to contact our Executive Director, Evelyn Gelman, at 212-329-7386 or peakperformance@ovationtravel.com.

We should also like to hear if you have contacts at any of the hospitals in our area.

You would of course be free to choose your own topics, but we can help with the provision of slides.

