

# HYPERTENSION 2008. Pediatric point of view Berlin, June 2008

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**H**YPERTENSION 2008 was held in Berlin, Germany, June 14-19, 2008. This year it was the joint congress of the 18<sup>th</sup> Scientific Meeting of the European Society of Hypertension and the 22<sup>nd</sup> Scientific Meeting of the International Society of Hypertension,

organized in cooperation with the German Hypertension League.

Being in Berlin, an outstanding city of Europe, is a privilege. It is the hometown of celebrated scientists like Rudolf Virchow, Robert Koch, Paul Ehrlich, and Max Delbrück and has a long history of medical discoveries. The

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Hypertension Congress in Berlin has gathered people from all over the world to learn about the most recent research in hypertension field and clinical trials of antihypertensive treatment, about the diagnostic and therapeutic guidelines with the most prestigious lecturers. There were present 8000 delegates from 98 different countries. In this meeting, there were accepted more than 2500 abstracts.

Hypertension, with a prevalence of 25% in general population and more than 50% over the age of 65, has become the first cause of death in the world, according to a WHO – supported study hypertension. The other associated factors of cardiac risk, diabetes and obesity, continue to increase.

As highlight in this meeting, certainly, the evolutionary medicine topic should be noticed. The evolutionary medicine regards at the human body as a whole that values more than the sum of the parts.

Another interesting topic was about changing the pharmacologic treatment of hypertension in children and adolescents. Due to the increasing prevalence of obesity in children and adolescents, also the cardiovascular risks are more important nowadays. Many anti-hypertensive agents were not licensed for this age group until recently. Today, there are many clinical studies working with antihypertensive drugs in some specific age group of children. The main antihypertensive pharmacological drug groups in children are ACE inhibitors, beta – blockers, calcium antagonists, and diuretics. The

first choice antihypertensive drug in children seems to be an ACE inhibitor, especially in the obesity associated hypertension, where the beta – blockers can increase the risk of additional weight gain. The beta-blockers can be very useful associated to the ACE inhibitors in pediatric patients with tachycardia. The calcium antagonists, nifedipine and amlodipine, are not licensed for antihypertensive purpose in children, although they have been very well studied. Despite all these, the nifedipine is still used in hypertensive emergencies in children. Like the calcium antagonists, the diuretics also are not licensed for antihypertensive use in children. The first used diuretic in pediatric patients is hydrochlorothiazide and must be replaced by furosemide in renal failure. In children and adolescents, some changes in drug prescription will appear. There will be prescribed only those drugs, which have been studied and authorized for a particular age group.

The problem of “masked” hypertension in children, detected by home blood pressure monitoring, was discussed in The Arsakeion School Study. The conclusion was that the masked hypertension in children and adolescents is more important than the white coat hypertension at this age group.

A new antihypertensive drug was presented, which is aliskiren, a renin-inhibitor. This was approved for use in 2007 and there are some other new drugs in clinical evaluation.