E/A rate was significantly reduced in comparison with pretreatment values and remained significantly lower through the follow-up.

These results suggest that in F+ regular p.a. is helpful for improving LV diastolic pattern and that this effect is long-lasting; whether this effect is due to a change of wall composition in favour of more distensible tissue elements or contribute to a cardioprotection, it will be matter for further studies.

Key Words: Physical activity; hypertension; echocardiography

### B030

**REGULAR PHYSICAL ACTIVITY IN THE MANAGEMENT OF HYPERTENSIVE PATIENTS**

*V. Di Legge*, M. Simi*, D. Faraggiana*, V. Taccini*, C. Graci*. 1Institute of Sport Medicine–Pisa, 2Cardiologist ANCE–Pisa, Italy

Regular physical activity (p.a.) has been reported to lower blood pressure in subjects with essential hypertension (EH), but many studies have shown that the prevalence of sedentary lifestyle is very important. To assess the applicability of p.a. as first-line treatment in EH, in terms of patient’s adherence, a study was performed on 125 consecutive subjects who showed borderline hypertension during a medical examination from 1994 to 1999; all subjects were EH at the first OMS stage. Only 59 subjects (45 M, 14 F), age range 30–52 years, undertook a regular p.a. for a period of six months; training sessions (3 times a week) consisted of one hour of running at an averaged speed of 1 kilometer every 6 minutes. At the end of follow-up 46 patients withdrew (33 M, 13 F); out of 13 patients who completed follow-up, normalization of blood pressure values with statistical significant percents decrements (–d%) in clinical diastolic blood pressure (cDBP) was obtained in 6 subjects (responder group or R), while no significant reduction was achieved in the other 7 (non responder group or NR) (–d% cDBP R: −6.5% vs NR −1.8% p < 0.05). Step-wise multiple regression analysis with percent modifications of cDBP as dependent variable and body mass index, age and cigarette smoking as independent variables showed that smoking was the variable carrying the greatest weight in inducing a negative prediction concerning the anti-hypertensive effect of p.a. In conclusion: 1) the use of p.a. as the first measure to treat borderline EH is largely unsatisfactory, mainly due to low patient’s acceptance; in particular gender influences the applicability: 2) the effect of p.a. on blood pressure seems more evident in no-smokers as compared to smokers.

Key Words: Physical activity; hypertension; non pharmacological treatment

---

### B031

**ABPM ROUNDTABLE DISCUSSION: A REVIEW OF AMBULATORY BLOOD PRESSURE MONITORING IN THE CLINICAL TRIALS RESEARCH FIELD**

*J. Heilbraun*, K. Klischer. Medifacts, Ltd, Rockville, MD

The purpose of the presentation is to review and discuss present issues in the collection and analysis of 24 hour Ambulatory Blood Pressure Monitoring (ABPM). The focus is to standardize the general format for using ABPM in clinical trials.

ABPM has become a recognized means of evaluating the safety and efficacy of medications which may effect blood pressure response. Areas of research have included the fields of hypertension CNS, women’s health and psychological/behavioral research.

Points of discussion will focus on:

A) A review of technology, auscultatory, oscillometry and combined devices with ECG

B) The use of the Mean Daytime Diastolic BP (MDDDBP) vs the Mean 24 Diastolic BP (M24DBP) as an inclusion criteria for hypertension trials.

C) Defining Daytime and Nightime evaluation parameters including a look at the issue of Dippers vs non-dippers as well as the Siesta effect. This will be reviewed on global perspect. Attendees will walk away with a greater understanding of how to best incorporate ABPM technology into their trials as well as how best to review the data. There is a difference between using ABPM in clinical practice versus the incorporation of ABPM in a clinical trials program. There are a number of different models, our goal is to help review and clarify study design aspects of ABPM within clinical research.

Key Words: ABPM; inclusion criteria; evaluation parameters

---

### B032

**RATE–PRESSURE PRODUCT CHANGE IN HYPERTENSIVE PATIENTS DURING THE THREAT OF BOMBARDEMENT**

*R. Živočić, Lj. Surić-Lambić*, M. Uglješić, M. Mitić, Lj. Jović-Mickočić. Medical Center ”Stari Grad” Belgrade, 1Clinical Hospital Zemun, Belgrade, Yugoslavia

The severe bomb attack had been expected in Belgrade in October 1998. The aim of the study was to evaluate the threat with bombardement as psychological stress effect on rate-pressure product in treated out-hypertensive patients during October 1998 in Belgrade. We evaluated 33 patients (16 male and 17 female; mean age 54.7 years) who had been treated with antihypertensive drugs for at least 2 years before threat of force. Rate-pressure product (RPP) evaluated during their regular control at cardiology department in a few “hot” days (period A). We compared RPP mean value with value which had been measured 2–3 months before (period B) Means systolic blood pressure (SBP), heart rate (HR) and rate–pressure product (RPP) elevated significantly during threat of bombardement.

We concluded that the threat of bombardement as psychological stress caused significantly rate–pressure product in treated out-hypertensive patients.