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HYPERTENSIVE CRISIS: WHO IS AT RISK?

Bhavesh Patel, Barbara A Clark. Div of Nephrology and Hypertension, Allegheny General Hospital, Pittsburgh, PA.

In order to better define the population at risk for hypertensive crisis and the underlying contributing factors and complications, we retrospectively reviewed all hospital admissions over a 12 mo period for a diagnosis of hypertensive crisis (HC). 24 cases were identified. HC was defined as sustained severe hypertension (SBP>210 ± DBP>120 mmHg) for which hospitalization was deemed necessary. Of the 24 cases, 14 were elderly (E, ≥60y, 74.4±y) and 10 were young (Y, 44.5±2.7y). All but one carried a diagnosis of known hypertension. 20 were white and 4 were black. 9 were male; 15 female. 11/24 had some screening for secondary causes of HTN. Most frequent was screening for renal artery stenosis (RAS) (doppler US, captopril flow scan, MRA or arteriogram) (9/24); RAS was found in 4/24 (2E, 2Y). 4/24 had 24h urine catecholamine screening (all negative). Other significant contributing factors to the HC were noncompliance with meds (4/24 all Y) and drugs (cocaine/amphetamine; 2/24; all Y). Most frequent complications were CVA (10/24) with intracranial bleed in 3; renal insufficiency (RI) (10/24); CHF (6/24); MI (3/24); death (1/24). Elderly had more complications (19 events vs 11 events in Y) and longer length of stay (14.6±5 vs 3.8±0.9 d). BP control was improved at discharge in all patients (SBP 220±7 to 148±3 mmHg; DBP 120±5 to 80±3 mmHg) with most patients requiring an increase in dose or number of meds (2±0.4 to 3±0.3). In conclusion, HC is most frequently seen in elderly WF with a history of known HTN with no clear precipitating causes. Noncompliant young hypertensives are also at significant risk. Complications are common and frequently include stroke and renal insufficiency. BP control is achievable in hospital generally within a few days .Screening for secondary causes (especially RAS) may be appropriate in patients without a history of noncompliance of illicit drug use. Heightened patient and physician awareness of the populations at risk with closer outpatient follow up may be useful in prevention.

Key Words: Aging, Hypertensive Crisis, Secondary Causes

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BLOOD PRESSURE AMONG GREENLANDERS. INFLUENCE OF DIET AND LIFESTYLE ON 24 HOUR BLOOD PRESSURE

Erling B Pedersen, Michael B Pedersen, Marit E Jorgensen. Research Laboratory of Nephrology and Hypertension, Aarhus University, Aarhus, Denmark; Department of Medicine, Queen Ingrid's Hospital, Nuuk, Greenland; Steno Diabetes Centre, Gentofte, Denmark.

Greenlanders have a lower cardiovascular mortality and morbidity than Danes, possibly due to a lower blood pressure. However, 24-hour blood pressure has never been measured in Greenlanders. Purpose: to compare 24-hour blood pressure between Greenlanders and Danes, and to analyse the influence of Arctic food and life style on blood pressure.

Methods:186 healthy subjects were recruited for the study. 145 Greenlandic participants were categorized in three groups according to degree of Westernization based on dietary habits and current place of residence. 41 Danes were included as controls. All subjects underwent physical examination, laboratory screening of blood, and urine samples, and sociocultural information was obtained by interview. 24-hour blood pressure was measured.

Results: 24-hour diastolic blood pressure was lower in Greenlanders than in Danes regarding the whole 24-hour period and both during day and night time, whereas systolic blood pressure was the same (Mean 24-hour blood pressure with 95% CI: Danes 123/75 mmHg (120/73-127/77), Greenlanders 122/69 (119/68-124/70)). Among Greenlanders, blood pressure increased with age and male gender, and systolic blood pressure increased with BMI. Blood pressure did not change with westernization. The difference between the two populations persisted after control for age, gender, BMI, out door temperature, and life style factors.

Conclusions: Greenlanders have lower 24-hour diastolic blood pressure than Danes, and it is suggested that genetic factors are mainly responsible for the lower blood pressure level among Greenlanders.

Key Words: Greenland, 24-h blood pressure, diet

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GENERAL PRACTITIONERS AWARENESS ON THE IMPORTANCE OF RENAL DISEASE EVALUATION IN NON-DIABETIC HYPERTENSIVE PATIENTS

Jose Carmona, Luis Pisco, Jorge Polonia. Portuguese Association of Hypertension, Portuguese Society of Gardiology, Lisbon, Portugal; Portuguese Society of General Practitioners, Portuguese Society of General Practitioners, Lisbon, Portugal.

The study aim was to collect with a valid questionnaire the opinion of a cohort of urban and rural general practitioners (GP) on their awareness on the relevance (in clinical practice) of investigating analytical markers of renal disease in non-diabetic hypertensive patients (HTs). Between March and June 2002 from 6000 GPs randomly selected, 3167 GPs (37% rural and 83% urban) responded to the questionnaire. More than 90% were graduated 15-25 years ago. Both rural and urban GPs declare to follow in average 116-132 patients/week, 62-78% of them classified as HTs. GPs declared to request to their patients "always" and "frequently": urinary analysis type II (in 90%), serum creatinine (75%), serum potassium (76%), microalbuminuria (50%), creatinine clearance (30%), proteinuria (32%) and creatinine clearance by Cockcroft formula (11%). GPs considered that HTs should be examined at least once / 6 months if they had: diabetes (94%), concomitant cardiovascular disease (82%), uncontrolled hypertension (82%), dyslipidemia (74%), overweight (57%), more than 60yrs (53%), controlled hypertension (26%), no other risk factors (21%). GPs considered very important in HTs: to evaluate renal function (95%), to treat HT more aggressively when renal disease is present (82%), to re-evaluate renal function after changing therapy (58%). Sixty % of GPs considered that available antihypertensive drugs differ in terms of renal protection, independently of their antihypertensive effects. We conclude that both overall awareness on the importance of frequent investigation of renal disease in HTs, and the concept that anti-HT drugs may differ in their renal protective capacities are positively present in > 50% of GPs.

Key Words: Questionnary GP, Awareness of renal disease

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BIRTHWEIGHT AND BLOOD PRESSURE IN CHILDREN: DOES THE ASSOCIATION EXISTS?

Paola Primatesta, Emanuela Falaschetti, Neil R Poulter. Dept. of Epidemiology & Public Health, University College London, London, United Kingdom; Cardiovascular Studies Unit, Imperial College, London, United Kingdom.

It has been suggested that intrauterine development (assessed by measuring birthweight) may influence blood pressure levels in later life.

We investigated a large, nationally representative sample of 11485 English children aged 5-15 who had their blood pressure and weight measured and whose parents recalled their birthweight, from the Health Survey for England 1995-1998.

The relationship between systolic blood pressure (SBP) and birthweight was described by tabulating quartiles of birthweight and quartiles of current weight and by coefficients from linear regression of SBP on birtweight, with and without adjustment for current weight and other confounders (age, sex, social class and maternal and paternal weight, blood pressures and smoking status).

Levels of SBP were more dependant on current weight (for different levels of birthweight) than on birthweight (for different levels of current weight) as shown in the Table.