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A CASE MANAGEMENT PROJECT FOR HYPERTENSION IN A RURAL, INDIGENT POPULATION IN THE MISSISSIPPI DELTA
D. A. Frate, L. Keys, M. Gimn. 1 University of Mississippi Medical Ctr., Jackson, MS, United States

During the past 20 years we have witnessed great advances in clinically controlling hypertension as evidenced by a drop in cerebrovascular mortality. However, even today special populations encounter multiple barriers hindering access to health care for chronic disease management. In response to such problems a specific case management project centering on hypertension therapy was designed and implemented in the Mississippi Delta to overcome such barriers as provider maldistribution, low educational levels, low socioeconomic status and lack of transportation. In this model indigenous caseworkers were hired and trained and placed in 13 rural primary care sites. Four-year outcome data demonstrate that this model was health and cost effective. Specifically, the repeated measures on over 800 patients at the end of the four years showed a significant (p <0.05) reduction in: patient hospital nights; number of client sick days and bed days; and the use of multiple primary care providers. The above evaluation also found a significant (p <0.05) increase in: patient knowledge about hypertension; overall quality of life assessment; and in the proportion of clients achieving a controlled blood pressure. Programs tailored to fit such populations can be effective in overcoming barriers to care resulting in positive health outcomes for the participants.

Key Words: Access, Barriers, Evaluation

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ERECTILE DYSFUNCTION AND SMOKING AMONG MEN WITH HYPERTENSION IN PRIMARY CARE
John G. Spangler, Ronny Bell, John Summerson, Joseph C. Konen. 1 Wake Forest University School of Medicine, Winston-Salem, NC, United States; 2 Carolina Medical Center, Charlotte, NC, United States

Erectile dysfunction (ED) affects over 30 million men in the United States, profoundly affecting their quality of life. Although cigarette smoking and hypertension are well-established risk factors for ED, the effect of cigarette smoking on ED has not been previously quantified. Smoking and hypertension are well established risk factors for ED, the adjusted odds for ED among patients with hypertension was 19.0 (95% CI 1.89 - 209). Despite the small sample size, these data indicate a significant adverse effect of cigarette smoking on ED, even among former smokers and after controlling for other risk factors, and may provide additional motivation among hypertensive men to quit smoking.

Key Words: Cigarette Smoking, Erectile Dysfunction, Primary Care

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PREVALENCE AND DETERMINANTS OF HYPERTENSIVE CARDIAC REMODELING IN ST.PETERSBURG POPULATION
Alexandra O. Conrady, Oleg G. Rudomanov, Eugene V. Shlyakhto. 1 Faculty Therapy Department, Pavlov State Medical University, St.Petersburg, Russia

The purpose of the study was to estimate the prevalence and determinants of distinct patterns of left ventricular remodelling in hypertensive patients in St.Petersburg population. A population-based sample of 434 randomly selected essential hypertensives (174 male and 260 female) from outpatient clinic in St.Petersburg without concomitant diseases was studied. Echocardiography was performed at the same laboratory and analyzed by a single observer. Left ventricular mass index and relative wall thickness were calculated to determine LV geometry pattern. The prevalence of left ventricular hypertrophy (LVH) was 58% (26% for concentric and 32.3% for eccentric one). It was higher in females (63.1 vs 53.4%), and progressively increased with age in both sexes. The presence of obesity, in particular androgen, increased the prevalence of LVH up to 63%. Concentric remodelling was diagnosed in 6.4% and only 35.3% of patients had normal LV geometry. In the whole group the eccentric LVH was more frequent. Male gender, blood pressure level, and waist to hip ratio were major factors increasing the proportion of concentric hypertrophy.

The present study support the notion that eccentric hypertrophy is the most frequent structural abnormality in essential hypertension. The pattern of LV geometry seems to be determined by the level of systolic wall stress, gender, and obesity type.

Key Words: Left ventricular hypertrophy, Echocardiography, Prevalence

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ANNUAL INCIDENCE OH HYPERTENSION AMONG FRENCH WORKING POPULATION
Regis De Gaulemier, Thierry Lang, Gilles Chatellier, Lynda Hamici, Jean M. Mallion. 1 Service de Medecine et Sante au Travail, Hopita A Michallon, Grenoble, France

Objective : The annual incidence of hypertension (HT) in developed countries is unknown. Thus we have studied this in the French working population. Methods : 50 occupational health doctors representing different economic regions included 400 to 800 employees at random. In 1998, the blood pressure (BP) was measured 3 times at one minute intervals after 5 minutes seated at rest. A verified sphygmomanometer was used. If the mean of the 3 measures was >140 (SBP) or >90 mmHg (DBP) a further measure was performed after one month. All subjects were seen again between 6 and 18 months by the same doctor and BP was measured in the same manner. Incident cases were those who had a normal BP initially or after repeat measurement in 1998 and whose BP was > 140 or >90 mmHg at one month in 1998 or who had been given anti-hypertensive treatment since the initial visit. Analysis : Incidence by age and sex was calculated by the classical method of cases per year.

Results : of 29 610 subjects entered into AHIHP, 16 943 participated in the incidence study and 446 became hypertensive. Of the subjects not included in the incidence study 6533 were prevalent cases and 6134 were not seen at follow up because of change of occupational health doctor in 53.6% and because of job transfer, quitting, retirement, or loss of job.
(29%), or sickness or death (3%), failure of appointment (7.6%), delay (7.6%).

The table shows the annual incidence (level per 100 persons/year) by age and sex. Given the small number of subjects still in work after 60 years this group was not detailed apart.

<table>
<thead>
<tr>
<th>Age (10 years groups)</th>
<th>Men nb of case</th>
<th>(9322) Incidence rate</th>
<th>Women nb of case</th>
<th>(7621) Incidence rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>27</td>
<td>1.28</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-49</td>
<td>222</td>
<td>6.42</td>
<td>83</td>
<td>2.77</td>
</tr>
<tr>
<td>50-59</td>
<td>101</td>
<td>8.25</td>
<td>43</td>
<td>4.14</td>
</tr>
<tr>
<td>Global</td>
<td>466</td>
<td>4.34</td>
<td>157</td>
<td>1.81</td>
</tr>
</tbody>
</table>

In males the incidence of HT increases steadily from the age of 40 years but is much lower in women at all ages. This is the first census of HT in France and should be a useful tool for public health authorities in the development of prevention and management strategies for HT.

Key Words: Epidemiology, Active population, Incidence of Hypertension

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BONE CALCIUM METABOLISM AND BLOOD PRESSURE

G. C. Tartarelli, F. Corsini, L. DiPalma, A. Leone 1Dept of Medicine City Hospital Massa-Carrara, Zona Apuane, Italy

Stiffness Index (SI) is an effective parameter for estimating mineralization of trabecular bone related to Calcium metabolism. Moreover, anti-hypertensive drugs, especially diuretics, can interfere with Calcium metabolism. The purpose of this study was to assess SI in patients (pts) with normal blood pressure (NBP) (<140/80 mmHg), and hypertensive pts with and without antihypertensive therapy. Study population undergone heel ultrasonography to measure SI: 209 pts, 36 males (17%) and 173 females (87%), age from 39 to 79 years. They were divided into three groups. 1. Pts with NBP: 85 (41%), 12 males (14%) and 73 females (86%), with a mean age of 55±12 years, mean BP of 119±(9/74+/8±) mmHg, and mean SI of 89+/17. 2. Pts with untreated hypertension: 70 (33%), 19 males (27%) and 51 females (73%), with a mean age of 56+/11 years, mean BP of 148+/21/89+/9± mmHg, and mean SI of 75+/17. 3. Hypertensive pts under therapy (Beta-blockers 17, Calcium channel antagonists 11, Angiotensin-converting enzyme inhibitors 24, Diuretics 22): 54 (26%), 5 males (9%) and 49 females (91%), with a mean age of 61+/9 years, mean BP of 150+/18/92+/6± mmHg, and mean SI of 80+/19. Statistical analysis (t-test, P < 0.05 statistically significant) showed that there was a statistically significant difference (P < 0.01) between NBP pts and hypertensive pts for SI and age with a major evidence for untreated pts. In conclusion, SI would be reduced in hypertensive pts, especially without antihypertensive therapy, who could undergo earlier to age related osteoporosis.

Key Words: Control, Hypertension, Epidemiology