Arterial Hypertension of Patients who Visited “Xh. Kongoli” Hospital in Elbasan During a Period of 2011 - 2014

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Abstract

Background: Hypertension remains one of the most important preventable contributors to disease and death. Abundant evidence from randomized controlled trials has shown the benefit of antihypertensive drug treatment in reducing important health outcomes in hypertensive persons. Differences in blood pressure, among the various groups enrollees to Hospital “Xh. Kongoli” Elbasan. Aim: The aim of this study was to find out the difference between Arterial hypertension to urban and rural zone in this periods of study. And give some of the reasons for this difference, and the causes for low numbers with Hypertension arterial for years 2013-2014. Methods: Arterial hypertension in 2608 heterogeneous patients in both rural, urban zone and from Gramsh and Librazhd (47. 73 % males and 52. 27 % females, mean age 54.3 ± 11.7 years old). Multiple regression analysis was used to investigate the association between hypertension arterial and gender, age, and their style of life. Results: In hospital was presented from 560, 504, 691, 414, 439 it was a number of the patient, respectively, for years 2010, 2011, 2012, 2013, 2014. There was a different trade for the patients that look for medical care during those periods. It is not very clear that is the result of improved lives and antihypertensive therapy or any other factors. Arterial hypertension is lower to patient that come from rural zones and lower from that came from outside of Elbasan (Gramsh, Librazhd). Conclusion: We have two results, between 2010-2012 we see an increasing patients with hypertension arterial and for years 2013-2014 patients with hypertension arterial have slow decreasing. These will be results of improved health outcome, improved lives and antihypertensive therapy, but can be as result of environment where they live or other factors.

Introduction

Hypertension is one of the leading causes of the global burden of disease. Approximately 7.6 million deaths (13–15% of the total) and 92 million disability-adjusted life years worldwide were attributable to high blood pressure in 2001. Hypertension doubles the risk of cardiovascular diseases, including coronary heart disease (CHD), congestive heart failure (CHF), ischemic and hemorrhagic stroke, renal failure, and peripheral arterial disease. It often is associated with additional cardiovascular disease risk factors, and the risk of cardiovascular disease increases with the total burden of risk factors. Although antihypertensive therapy clearly reduces the risks of cardiovascular and renal disease, large segments of the hypertensive population are either untreated or inadequately treated.

Figure 1. Source: World Health Organization, Albania: WHO statistical profile

High blood pressure is defined by an increasing blood pressure levels above the values which are common in the normal population. Say what values should be defined excessive is not easy, since that the blood pressure of the population presents the changes that are related to several factors, including relevant are age, sex and race. Hypertension is defined as values ≥140 mmHg SBP and/or ≥90 mmHg DBP, based on the evidence from RCTs that in patients with these BP values treatment-induced BP...
reductions are beneficial. The same classification is used in young, middle-aged and elderly subjects, whereas different criteria, based on percentiles, are adopted in children and teenagers for whom data from interventional trials are not available. (5)

![Ischaemic heart disease was the leading cause of death, killing 7.5 thousand people in 2012](image)

**Figure 2. Source: World Health Organization, Albania: WHO statistical profile**

To provide a framework for understanding the pathogenesis of and treatment options for hypertensive disorders, it is useful to understand factors involved in the regulation of both normal and elevated arterial pressure. The aim of this study was to find out the difference between Arterial hypertension to urban and rural zone in this periods of study. And give some of the reasons for this difference, and the causes for low numbers with Hypertension arterial for years 2013-2014.
Risk factor of Hypertension arterial

Cardiovascular risk factors associated with internal state or the environment. Some of them are modifiable, others not. Risk factors that can not be modified are: Age, Sex, Race, inheritance.

![Albanian WHO statistical profile](image)

Figure 3. Source: World Health Organization, Albania: WHO statistical profile

**Method.** During the periods 2010 – 2014 was presented to Hospital “Xh. Kongoli” Elbasan, 2608 heterogeneous patients in both rural, urban zone and from Others (Gramsh, Librazhd and Peqin) (47.73 % males and 52.27 % females, mean age 54.3 ± 11.7 years old) with Arterial hypertension. On the table below, we give the number of patients for each years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Women</th>
<th>Men</th>
<th>Rural</th>
<th>Urban</th>
<th>Others</th>
<th>15 - 24 old</th>
<th>25 - 34 old</th>
<th>35 - 44 old</th>
<th>45 - 54 old</th>
<th>55 - 64 old</th>
<th>Over 65 old</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>560</td>
<td>237</td>
<td>223</td>
<td>191</td>
<td>329</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>28</td>
<td>112</td>
<td>167</td>
<td>152</td>
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<tr>
<td>2011</td>
<td>504</td>
<td>259</td>
<td>245</td>
<td>194</td>
<td>251</td>
<td>59</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>20</td>
<td>119</td>
<td>195</td>
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<tr>
<td>2012</td>
<td>691</td>
<td>333</td>
<td>358</td>
<td>281</td>
<td>334</td>
<td>76</td>
<td>2</td>
<td>5</td>
<td>25</td>
<td>164</td>
<td>279</td>
<td>216</td>
</tr>
<tr>
<td>2013</td>
<td>414</td>
<td>229</td>
<td>186</td>
<td>136</td>
<td>234</td>
<td>44</td>
<td>2</td>
<td>2</td>
<td>16</td>
<td>131</td>
<td>160</td>
<td>104</td>
</tr>
<tr>
<td>2014</td>
<td>439</td>
<td>206</td>
<td>233</td>
<td>178</td>
<td>195</td>
<td>66</td>
<td>1</td>
<td>0</td>
<td>15</td>
<td>85</td>
<td>185</td>
<td>153</td>
</tr>
</tbody>
</table>

![Bar graph](image)

Figure 4. Difference between Urban Rural and Other
One of a risk for Arterial hypertension is physical inactivity, in this can explain the low level on rural zone with environment element too. Men are generally at greater risk for cardiovascular and renal disease than are age matched, premenopausal women.

**Table 2: Men and Women for each year for different ages.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>15-24 old</th>
<th>25-34 old</th>
<th>35-44 old</th>
<th>45-54 old</th>
<th>55-64 old</th>
<th>Over 65 old</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>M</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>44</td>
<td>86</td>
<td>78</td>
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<tr>
<td></td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>68</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>2011</td>
<td>M</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>48</td>
<td>118</td>
<td>71</td>
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<tr>
<td></td>
<td>W</td>
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<td>2</td>
<td>13</td>
<td>71</td>
<td>77</td>
<td>96</td>
</tr>
<tr>
<td>2012</td>
<td>M</td>
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<td>81</td>
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<td>107</td>
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<td>16</td>
<td>83</td>
<td>122</td>
<td>109</td>
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<tr>
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<td>2</td>
<td>1</td>
<td>3</td>
<td>42</td>
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<td>8</td>
<td>87</td>
<td>75</td>
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<tr>
<td>2014</td>
<td>M</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>31</td>
<td>107</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>54</td>
<td>78</td>
<td>66</td>
</tr>
</tbody>
</table>

**Figure 5. Men and Women for each year for different ages.**

Recent studies for blood pressure monitoring have shown that blood pressure is higher in men than in women at similar ages.

**Figure 6. Men and Women for each year**
If we look on the graph above can say that the rural people have low possible to get hypertension since the life in rural zone is more active than in urban zone.

Conclusions

These study suggest that more frequent office visits, home blood-pressure monitoring, pharmacist interventions, are some of the recommendations to get better result. Another things that can not be ignore for hypertension problem are physical activity. Risk-factor control was substantially lower for rural zone than for urban for blood pressure. Do not smoke (not to start it, or give up if you smoke), the eating healthy, not abuse with alcohol, not to be obese or overweight, be physically active. For ages over 60 to have regular control to medical care. Get use of medicament in right way.

Recommendations

- In patients aged 60 years or older, initiate therapy advice by medical.
- In patients younger than 60 years as well as those older than 18 years treatment initiation and goals should be pression over 140/90 mm Hg.
- If a patient's goal is not achieved within 1 month of treatment, increase the dose of the initial medicament or add a medicament from another of the recommended drug classes; if 2-drug therapy is unsuccessful for reaching the target, add a third medicament from the recommended drug classes.
In patients whose goal cannot be reached with 3 medicament from the recommended drug classes, use medicament from other drug classes and/or refer the patients to a hypertension specialist.

- Patient education.
- Other factors to be study in future.

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