To establish early values of left ventricular diastolic pressure (LVEDP) in spontaneously hypertensive rats (SHR), we studied 40 SHR which were submitted to a cardiac catheterization to evaluate the following parameters: systolic and diastolic pressure, LVEDP and Dp/Dt values. All SHR were males and they were 12 weeks of age. They were kept in our animal lab at 26 to 32 °C. Results were compared with others 40 normotensive rats of similar age.

We show results in the following table:

<table>
<thead>
<tr>
<th></th>
<th>SHR</th>
<th>Normotensive rats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATE</strong></td>
<td><strong>SYSTOLIC BLOOD PRESSURE</strong></td>
<td><strong>DIASTOLIC BLOOD PRESSURE</strong></td>
</tr>
<tr>
<td>SHR</td>
<td>178 ± 8*</td>
<td>105 ± 6*</td>
</tr>
<tr>
<td>Normotensive</td>
<td>123 ± 9</td>
<td>83 ± 6</td>
</tr>
</tbody>
</table>

* = p < 0.05

**Conclusion:** In early stages of hypertension we found in SHR a significant elevation of LVEDP comparing with normotensive rats. Also there were significant differences in Dp/Dt values indicating a delay of left ventricular diastolic relaxation pointing out poor diastolic function in SHR comparing with normotensive rats.

**Key Words:** Hypertension, Left Ventricular End Diastolic Pressure, Spontaneously Hypertensive Rats

**P-486**

**EARLY ELEVATION OF LEFT VENTRICULAR END DIASTOLIC PRESSURE IN SPONTANEOUSLY HYPERTENSIVE RATS COMPARING WITH NORMOTENSIVE RATS. EXPERIMENTAL STUDY**

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Furthermore, we found significant positive linear trends for changes in catecholamines from baseline to MST across the groups (ΔEp = 0.001 and ΔNE = 0.026, ANOVA).

Resting BP reflects both variations in resting arterial catecholamines and variations in CV and sympathetic responses specifically to mental stress. These differences are present despite eliminating awareness of BP status as a confounding factor.

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**P-488**

**DIASTOLIC DYSFUNCTION IN HYPERTENSION:**

**ROLE OF UROTENSIN II PEPTIDE**

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**Background:** Diastolic dysfunction plays a fundamental role in the natural story of the hypertension. At present there are no data about the plasma level and role of the Urotensin II a potent vasconstrictor peptide in hypertensive.

**Aim of the Study:** Evaluate plasma level of urotensin II in a group of hypertensive patients matched with a group of normals and investigate the correlations with the systolic and diastolic parameters.

**Material and Methods:** Hypertensive patients and normal, were submitted to a blood drawing withouth and to a traditional transthoracic echocardiography exame to determine respectively the plasma levels of Urotensin II and to obtain the systolic and diastolic parameters. Urotensin plasma level was determine.

**Results:** The results show that the level of urotensin is significantly higher in hypertensive than in normal with an increment of 124% p < 0.001. The echocardiography parameters of the systolic function show an increase in hypertensive respect of normal but not significant. Every patient shows a diastolic dysfunction with an increment of the value of the IVRT and DT of the 20% and of the 11% with consequently inversion of E/A. However no significant correlation was detect among the systolic and diastolic echocardiography parameters and the urotensin plasma levels in hypertensive (mass hypertensive / mass normal r = 0.0189).

**Conclusions:** Our study show that in hypertensive people the level of Urotensin II is higher than in normal, but no correlation is present with morphological echocardiographies parameters, particularly in distolic disfunction.

Key Words: Diastolic Function, Echocardiography, Urotensin