**LIFE**

**Background/Rationale**

- No specific drug treatment in hypertension has shown unique benefit over another
- LVH is a strong and independent risk factor
- Angiotensin II is an important growth factor and linked to mortality
- Purpose: To determine if the selective AT₁-receptor blockade (losartan) is potentially more effective than atenolol in reversing LVH and CV morbidity and mortality beyond BP lowering


**LIFE Study Dosing Design**

- 9193 men and women with Hypertension and LVH
- Titration target: BP < 140/90 mmHg

**LIFE Study Dosing Design**

<table>
<thead>
<tr>
<th>Month</th>
<th>Losartan</th>
<th>Atenolol</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>50 mg</td>
<td>50 mg</td>
</tr>
<tr>
<td>4</td>
<td>100 mg</td>
<td>100 mg</td>
</tr>
<tr>
<td>6</td>
<td>100 mg</td>
<td>100 mg</td>
</tr>
</tbody>
</table>

+ HCTZ 12.5 - 25 mg + others*

* Excluding ACEIs, A-II antagonists, Ç-blockers


**LIFE Blood Pressure:**

**Baseline & Follow-up (mean 4.8 yrs)**

<table>
<thead>
<tr>
<th>Losartan</th>
<th>Atenolol</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n=4605)</td>
<td>(n=4588)</td>
</tr>
</tbody>
</table>

- SBP (baseline) 174.3 174.5
- SBP (follow-up) 144.1 145.4
- DBP (baseline) 97.9 97.7
- DBP (follow-up) 81.3 80.9


**LIFE Primary Composite Outcome**

**Intention to Treat**

- Adjusted Risk Reduction 13.0%, p = 0.021
- Unadjusted Risk Reduction 14.6%, p = 0.009


**LIFE Study Diabetes Substudy**

- Patients: 9,195 men and women with hypertension (160-200/95-115 mm Hg), ECG signs of LVH and type 2 DM, aged 55-80 years
- Mean age: 67.4; BP: 176/97 mm Hg; BP goal <140/90 mm Hg
- Drug therapy:
  - 586 randomized to losartan +/- HCTZ, mean BP at end of follow-up: 146/79 mm Hg
  - 609 randomized to atenolol +/- HCTZ, mean BP at end of follow-up: 148/79 mm Hg
- Primary endpoints: CV morbidity and mortality (CV death, stroke, MI) 4.7-year mean follow-up