TABLES AND FIGURES
Table 1. Blood pressure (Systolic and diastolic) in experimental hypertensive and sham control rabbits

<table>
<thead>
<tr>
<th>Blood pressure</th>
<th>Blood Groups of rabbits</th>
<th>Blood pressure (mm of mercury) measured after production of hypertension at</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>7 days</td>
</tr>
<tr>
<td>Range</td>
<td>p-value</td>
<td>Range</td>
</tr>
<tr>
<td>(Mean±SE)</td>
<td></td>
<td>(Mean±SE)</td>
</tr>
<tr>
<td>Sham control</td>
<td>150 - 159</td>
<td>151 - 154</td>
</tr>
<tr>
<td>(153.50±1.02)</td>
<td></td>
<td>(152.66±0.45)</td>
</tr>
<tr>
<td>Systolic</td>
<td></td>
<td>210 - 230</td>
</tr>
<tr>
<td>pressure</td>
<td></td>
<td>(213±1.33)</td>
</tr>
<tr>
<td>Experimental</td>
<td>52 - 58</td>
<td>52 - 58</td>
</tr>
<tr>
<td>(55.66±0.869)</td>
<td></td>
<td>(55.00±0.70)</td>
</tr>
<tr>
<td>Diastolic</td>
<td></td>
<td>56 - 62</td>
</tr>
<tr>
<td>pressure</td>
<td></td>
<td>(59.33±0.74)</td>
</tr>
</tbody>
</table>

a. Hypertension was produced experimentally in rabbits by renal artery ligation on day 0.
b. Age and sex matched rabbits of average body weight 1.5 kgs were chosen. Number of animals were six for each control and experimental group.
### Table - 2.

| Sample | Group of rabbits | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control | Sham control |
|--------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Kidney cortex | 7 day | Mean ± SE | p-value | 10 day | Mean ± SE | p-value | 14 day | Mean ± SE | p-value | 21 day | Mean ± SE | p-value |
| 1 - 2 (0.15) | p > 0.05 | 1 - 2 (0.15) | p > 0.05 | 1 - 2 (0.15) | p > 0.05 | 1 - 2 (0.15) | p > 0.05 |
| 1 - 2 (0.19) | p > 0.05 | 1 - 2 (0.19) | p > 0.05 | 1 - 2 (0.19) | p > 0.05 | 1 - 2 (0.19) | p > 0.05 |
| 1 - 2 (0.14) | p > 0.05 | 1 - 2 (0.14) | p > 0.05 | 1 - 2 (0.14) | p > 0.05 | 1 - 2 (0.14) | p > 0.05 |

*Note: The table compares mast cell population counts in different perivascular tissues of experimentally produced hypertension and sham operated control rabbits.*
Table 3. Determination of diamine oxidase (DAO) level in serum and in different perivascular tissues of experimentally hypertensive and sham operated control rabbits

<table>
<thead>
<tr>
<th>Type of groups</th>
<th>Serum</th>
<th>Kidney cortex</th>
<th>Kidney medulla</th>
<th>Lung</th>
<th>Spleen</th>
<th>Mesentery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sham control</td>
<td>0.5-0.8 (0.62±0.04)</td>
<td>1.4-1.6 (1.5±0.03)</td>
<td>1.5-1.8 (1.62±0.04)</td>
<td>1.2-1.4 (1.3±0.03)</td>
<td>0.5-0.7 (0.58±0.03)</td>
<td>1.8-7 (1.87±0.03)</td>
</tr>
<tr>
<td>Experimental</td>
<td>0.9-1.2 (1.03±0.05)</td>
<td>2.3-2.5 (2.37±0.03)</td>
<td>2.3-2.6 (2.32±0.09)</td>
<td>1.3-1.5 (1.4±0.04)</td>
<td>1.3-1.5 (1.4±0.04)</td>
<td>2.8-3 (2.73±0.14)</td>
</tr>
<tr>
<td>Range</td>
<td>0.4-0.7 (0.55±0.05)</td>
<td>1.5-1.8 (1.6±0.04)</td>
<td>1.8-2 (1.87±0.03)</td>
<td>1.3-1.5 (1.4±0.04)</td>
<td>0.5-0.8 (0.62±0.04)</td>
<td>1.7-1.9 (1.72±0.04)</td>
</tr>
<tr>
<td>P-value</td>
<td>&gt;0.05</td>
<td>&lt;0.005</td>
<td>&lt;0.005</td>
<td>&lt;0.005</td>
<td>&lt;0.005</td>
<td>&gt;0.05</td>
</tr>
</tbody>
</table>

7 days | 14 days | 21 days

- Hypertension in rabbits was produced experimentally by renal artery ligation day 0.
- Age and sex matched rabbits of average body weight 1.5 kgs were chosen. Number of animals were six for each control and experimental group.
Fig. 1A. Recording of blood pressure (mm of Hg) in sham operated control on 7th day of experiment.

Fig. 1B. Recording of blood pressure (mm of Hg) in experimentally induced hypertensive rabbits on 7th day after production of hypertension.
Fig. 1c. Recording of blood pressure (mm of Hg) in sham operated control group on 14th day of experiment.

Fig. 1d. Recording of blood pressure (mm of Hg) in experimentally induced hypertensive rabbits on 14th day after production of hypertension.
Recording of blood pressure (mm of Hg)
in sham operated control group on 21st
day of experiment.

Recording of blood pressure (mm of Hg)
in experimentally induced hypertensive
rabbits on 21st day after production
of hypertension.
Fig. 2A. Bar diagram showing systolic blood pressure in rabbits following production of experimental hypertension (exptl) in comparison to sham operated control group (sham control). Data represented as Mean systolic blood pressure (mm Hg) ± standard error (SE).
Fig. 2B. Bar diagram showing diastolic blood pressure in rabbits following production of experimental hypertension (Exptl) in comparison to sham operated control (sham control) group. Data represented as Mean diastolic blood pressure (mm Hg) ± SE.
Fig. 3A. Bar diagram showing mast cell population (cells/Sq.mm) in kidney cortical tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbit (sham control). Data represented as Mean ± SE.
Mast cells/ sq mm

Fig. 3B. Bar diagram showing mast cell population (cells/Sq.mm) in Kidney Medullary tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbit (sham control). Data represented as Mean ± SE.
Fig. 3C. Bar diagram showing mast cell population (cells/Sq.mm) in lung tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbit (sham control). Data represented as Mean ± SE.
Fig. 3D. Bar diagram showing mast cell population (cells/Sq.mm) in spleen tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbit (sham control). Data represented as Mean ± SE.
Fig. 3E. Bar diagram showing mast cell population (cells/Sq.mm) in mesentery of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbit (sham control). Data represented as Mean ± SE.
Fig. 4A. Bar diagram showing histamine concentration (µg/ml) in serum of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 43. Bar diagram showing histamine concentration (µg/gm of tissue) in kidney cortical tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 4C. Bar diagram showing histamine concentration (μg/gm) in Kidney medullary tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Histamine concentration (\(\mu g/gm\) of tissue)

Fig. 4E. Bar diagram showing histamine concentration (\(\mu g/gm\)) in tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean \(\pm\) SE.
Fig. 4F. Bar diagram showing histamine concentration (µg/gm) in tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 4F. Bar diagram showing histamine concentration (μg/gm of tissue) in mesentery of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Serotonin concentration (μg/ml of serum) comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.

Fig. 5A. Bar diagram showing serotonin concentration (μg/ml) in serum of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Serotonin concentration (μg/gm of tissue)

Fig. 5B. Bar diagram showing serotonin concentration (μg/gm) in kidney cortical tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 5C. Bar diagram showing serotonin concentration (µg/gm of tissue) in Kidney medullary tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Serotonin concentration (pg/gm of tissue)

Fig. 5D. Bar diagram showing serotonin concentration (μg/ml) in lung tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Serotonin concentration ($\mu$g/gm of tissue)

Fig. 5E. Bar diagram showing serotonin concentration in spleen tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 5F. Bar diagram showing serotonin concentration (µg/ml) in mesentery of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated (Sham control) rats. Data represent mean ± SE.
Fig. 6A. Bar diagram showing heparin concentration (IU/ml) in serum of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits. Data represent mean ± SE.
Fig. 6B. Bar diagram showing heparin concentration (IU/gm) in kidney cortical tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham control rabbits (sham control) control rabbits. Data represented as means ± SE.
Fig. 6C. Bar diagram showing heparin concentration (IU/gm) in kidney medullary tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham control rabbits. Both represented means ± SE.
Fig. 6D. Bar diagram showing heparin concentration (IU/gm) in lung tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits. Data represented as means ± SE.
Fig. 6E. Bar diagram showing heparin concentration (IU/gm) in spleen tissue of experimentally produced hypertensive rabbits (Exptl) in comparison to sham control rabbits. Data represented as Mean±SE.
Fig. 6E. Bar diagram showing heparin concentration (IU/gm) in mesentery of experimentally produced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits. Data represented as mean ± SE.
Bar diagram showing noradrenaline concentration (μg/ml) in serum of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as mean ± SE.
Fig. 73. Bar diagram showing noradrenaline concentration (µg/gm) in kidney cortical tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 7C. Bar diagram showing noradrenaline concentration (µg/gm) in kidney medullary tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 7D. Bar diagram showing noradrenaline concentration (µg/gm of tissue) in lung tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 7E. Bar diagram showing noradrenaline concentration (µg/gm) in spleen tissue of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Norsdrenaline concentration (μg/gm of tissue) - Days after production of hypertension

Bar diagram showing noradrenaline concentration (μg/gm) in mesentery of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.

Fig. 7F. Bar diagram showing noradrenaline concentration (μg/gm) in mesentery of experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control rabbits (sham control). Data represented as Mean ± SE.
Fig. 8. Bar diagram showing serum cholesterol level (mg/dL) in experimentally induced hypertensive rabbits in comparison to sham operated control group (sham control). Data represented Mean ± SE.
Triglyceride level (mg/dl of serum)

Bar diagram showing serum triglyceride level (mg/dl) in experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control group (sham control). Data represented Mean ± SE.

Fig. 9. Bar diagram showing serum triglyceride level (mg/dl) in experimentally induced hypertensive rabbits (Exptl) in comparison to sham operated control group (sham control). Data represented Mean ± SE.
Fig. 10-A. Kidney cortical tissue section of sham control rabbits on 7th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-B. Kidney cortical tissue section of Experimental rabbit on seventh day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-a. Kidney cortical tissue section of sham control rabbits on 14th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Kidney cortical tissue section of experimental rabbit on fourteenth day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-E. Kidney cortical tissue section of sham control rabbits on 21st day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-F. Kidney cortical tissue section of experimentally induced hypertensive rabbits on 21st day following production of hypertension (toluidine blue) showing mast cell (magnification X400).
Fig. 4. Kidney medullary tissue section of sham control rabbits on 7th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Kidney medullary tissue section of Experimental rabbit on seventh day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-1. Kidney medullary tissue section of sham control rabbits on 14th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-3. Kidney medullary tissue section of experimental rabbit on fourteenth day after production of hypertension (toluidine blue) showing mast cell (magnification X 400).
Fig. 10-K. Kidney medullary tissue section of sham control rabbits on 21st day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-L. Kidney medullary tissue section of experimentally induced hypertensive rabbits on 21st day following production of hypertension (toluidine blue) showing mast cell (magnification X400).
Fig. 10-M, Lung tissue section of sham control rabbits on 7th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-N, Lung tissue section of experimental rabbit on seventh day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-C, Lung tissue of sham control rabbits on fourteenth day following production of hypertension (toluidine blue) showing mast cell (magnification, X 400).

Fig. 10-E, Lung tissue section of experimental rabbit on fourteenth day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-8, Lung tissue section of sham control rabbits on 1st day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-9, Lung tissue section of experimental rabbit on 21st day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10-5, Spleen tissue section of sham control rabbits on 7th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-7, Spleen tissue section of Experimental rabbit on seventh day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 10 - Spleen tissue section of sham control rabbits on 14th day of experimental period (toluidine blue) showing mast cell (magnification X 400).

Fig. 10 - Spleen tissue section of experimental rabbit on fourteenth day after production of hypertension (toluidine blue) showing mast cell (magnification X 400).
Fig. 1a. Spleen tissue section of sham control rabbits on 21st day of experimental period (toluidine blue) showing mast cell (magnification X400).

Fig. 1b. Spleen tissue section of experimentally induced hypertensive rabbits on 21st days following production of hypertension (toluidine blue) showing mast cell (magnification X400).
Fig. 10-7. Section of mesentery of sham control rabbits on 7th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 10-7. Section of Mesentery of Experimental rabbit on seventh day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 11-A. Section of mesentery of sham control rabbits on 14th day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 11-\(\beta\). Section of mesentery of experimental rabbit on fourteenth day after production of hypertension (toluidine blue) showing mast cell. (magnification X 400).
Fig. 11 - c. Section of mesentery of sham control rabbits on 21st day of experimental period (toluidine blue) showing mast cell (magnification, X400).

Fig. 11 - d. Section of mesentery of experimentally induced hypertensive rabbits on 21st days following production of hypertension (toluidine blue) showing mast cell (magnification X400).