signed to five groups according to the treatment received: Group I: Control; Group II: Morphine; Group III: Apelin-13; Group IV: Apelin-13+L-NAME; Group V: Apelin-13+Ondansetron. Groups Variables Control Mornhine Anelin-13

| variables |        | (n=8)          | (n=8)           | (n=8)              | +L-NAME<br>(n=8)  | +Ondansetron<br>(n=8) | P       |
|-----------|--------|----------------|-----------------|--------------------|-------------------|-----------------------|---------|
|           | 0 min  | 20.75 (14-26)  | 38.3 (29.7-47)* | 28.85 (18.9-48.4)* | 25.2 (21.7-35.8)* | 16.8 (12.9-28.4)†     | < 0.001 |
| Hot-plate | 30 min | 18.2 (12.5-26) | 60 (25-60)*     | 38.2 (26-60)*      | 29.9 (18.2-37)*   | 15 (11.9-38)†         | < 0.001 |

Anelin-13

26.65 (19.8-35.5)\*

20.7 (13.3-58)

8.5 (5-10)

8.05 (5-10)

Anelin\_13

12.35 (10.4-14.7)\*,†,‡

12.85 (10.7-17.8)\*,‡

5 (5-7.9)

5 (4-5.7)\*,†

n

0.002

0.02

0.053

0.002

**Table 1:** The results obtained from hot-plate and tail-flick analgesia tests in forty male rats that were randomly as-

|     | 0 min   | 5.4 (5-7.2)    | 6.7 (4.6-10)  | 5 (5-10)       |
|-----|---------|----------------|---------------|----------------|
|     | 120 min | 17 (13-27)     | 14.7 (8.7-32) | 20.7 (9-31)    |
|     | 60 min  | 15.7 (7.6-32)  | 17 (9-55)     | 22.6 (11.7-45) |
| ate | 30 min  | 18.2 (12.5-26) | 60 (25-60)*   | 38.2 (26-60)*  |

8.15 (5-10)\*

6.1 (5-6.4)

ent from Apelin-13 group (Mann-Whitney U test, p<0.05).

60 min 5.85 (5-6.5) 6.65 (4.7-9.5) 7.7 (5-9.5)\* 9.25 (8-10)\* 5.25 (4.1-7) < 0.001 120 min 5 (5-6.5) 5.35 (5-6.2) 5.65 (5-7) 8 (5.2-10)\* 5 (4-6.5) 0.001

L-NAME: Nw-nitro-L-arginine methyl ester, min: minute, Data were expressed as median (Min-Max), \*: significantly different from Control group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), ‡: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from Morphine group (Mann-Whitney U test, p <0.05), †: significantly different from M

9.3 (6-10)\*

Tail-flick

30 min