

รายการอ้างอิง

ภาษาไทย

จักรี ดันติพงศ์. ผลของแคลเซียมที่มีต่ออัตราการเต้นและแรงบีบตัวของหัวใจห้องบนที่แยกจากหนูขาว. วิทยานิพนธ์ปริญญาเภสัชศาสตรมหาบัณฑิต ภาควิชาเภสัชวิทยา บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย. 2526.

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วราพร จิรจรรยาเวช. ศึกษาการออกฤทธิ์ของซีโรโตนินที่เพิ่มอัตราการเต้นและแรงบีบตัวของหัวใจด้านบนขวาและซ้ายของหนูขาว. วิทยานิพนธ์ปริญญาเภสัชศาสตรมหาบัณฑิต ภาควิชาเภสัชวิทยา บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย. 2531.

อัญชรี อักขระชาตะ. ฤทธิ์ของไปเปอรินที่มีต่อความดันโลหิตและหัวใจห้องบนขวาและซ้ายที่แยกจากหนูขาว. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต สาขาสรวิทยา บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย. 2529 .

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ภาคผนวก

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 217.00 | 217.00 | 100.00 | 214.00 | 98.62 | 213.00 | 98.16 | 213.00 | 98.16 | 215.00 | 99.08 | 215.00 | 99.08 | 218.00 | 100.46 |
| 2 | 248.00 | 247.00 | 99.60 | 245.00 | 98.79 | 244.00 | 98.39 | 241.00 | 97.18 | 237.00 | 95.56 | 235.00 | 94.76 | 233.00 | 93.95 |
| 3 | 253.00 | 244.00 | 96.44 | 243.00 | 96.05 | 243.00 | 96.05 | 242.00 | 95.65 | 240.00 | 94.86 | 240.00 | 94.86 | 239.00 | 94.47 |
| 4 | 219.00 | 219.00 | 100.00 | 215.00 | 98.17 | 213.00 | 97.26 | 210.00 | 95.89 | 211.00 | 96.35 | 203.00 | 92.69 | 250.00 | 114.16 |
| 5 | 214.00 | 206.00 | 96.26 | 217.00 | 101.40 | 229.00 | 107.01 | 231.00 | 107.94 | 241.00 | 112.62 | 245.00 | 114.49 | 251.00 | 117.29 |
| 6 | 256.00 | 256.00 | 100.00 | 255.00 | 99.61 | 255.00 | 99.61 | 254.00 | 99.22 | 253.00 | 98.83 | 253.00 | 98.83 | 251.00 | 98.05 |
| mean | 234.50 | 231.50 | 98.72 | 231.50 | 98.77 | 232.83 | 99.41 | 231.83 | 99.01 | 232.83 | 99.55 | 231.83 | 99.12 | 240.33 | 103.06 |
| SD | 19.77 | 20.07 | 1.84 | 18.20 | 1.76 | 17.44 | 3.91 | 17.38 | 4.58 | 16.35 | 6.63 | 19.04 | 7.93 | 13.23 | 10.14 |
| SEM | 8.07 | 8.19 | 0.75 | 7.43 | 0.72 | 7.12 | 1.59 | 7.10 | 1.87 | 6.67 | 2.71 | 7.77 | 3.24 | 5.40 | 4.14 |
| t-test | | 0.147 | | 0.144 | | 0.658 | | 0.549 | | 0.792 | | 0.724 | | 0.556 | |

*%res = %Response

ตารางที่ 1 อัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาวในภาวะปกติ (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|
| 1 | 0.53 | 0.53 | 100.00 | 0.53 | 100.00 | 0.53 | 100.00 | 0.52 | 98.11 | 0.52 | 98.11 | 0.53 | 100.00 | 0.53 | 100.00 |
| 2 | 0.41 | 0.43 | 104.88 | 0.45 | 109.76 | 0.44 | 107.32 | 0.44 | 107.32 | 0.46 | 112.20 | 0.46 | 112.20 | 0.43 | 104.88 |
| 3 | 0.60 | 0.60 | 100.00 | 0.62 | 103.33 | 0.61 | 101.67 | 0.60 | 100.00 | 0.59 | 98.33 | 0.70 | 116.67 | 0.70 | 116.67 |
| 4 | 0.82 | 0.82 | 100.00 | 0.79 | 96.34 | 0.78 | 95.12 | 0.81 | 98.78 | 0.82 | 100.00 | 0.77 | 93.90 | 0.79 | 96.34 |
| 5 | 0.73 | 0.73 | 100.00 | 0.74 | 101.37 | 0.71 | 97.26 | 0.71 | 97.26 | 0.68 | 93.15 | 0.64 | 87.67 | 0.61 | 83.56 |
| 6 | 0.51 | 0.51 | 100.00 | 0.51 | 100.00 | 0.52 | 101.96 | 0.54 | 105.88 | 0.56 | 109.80 | 0.53 | 103.92 | 0.53 | 103.92 |
| mean | 0.60 | 0.60 | 100.81 | 0.61 | 101.80 | 0.60 | 100.55 | 0.60 | 101.23 | 0.61 | 101.93 | 0.61 | 102.39 | 0.60 | 100.89 |
| SD | 0.15 | 0.15 | 1.99 | 0.14 | 4.52 | 0.13 | 4.23 | 0.14 | 4.28 | 0.13 | 7.43 | 0.12 | 10.92 | 0.13 | 10.92 |
| SEM | 0.06 | 0.06 | 0.81 | 0.06 | 1.84 | 0.05 | 1.73 | 0.06 | 1.75 | 0.05 | 3.03 | 0.05 | 4.46 | 0.05 | 4.46 |
| t-test | | 0.36 | | 0.52 | | 0.88 | | 0.72 | | 0.77 | | 0.86 | | 0.96 | |

*%res = %Response

ตารางที่ 2 แรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาวในภาวะปกติ (%Response)

| No | control | 0.43 | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.53 | 0.53 | 100.00 | 0.53 | 100.00 | 0.53 | 100.00 | 0.52 | 98.11 | 0.52 | 98.11 | 0.53 | 100.00 | 0.53 | 100.00 |
| 2 | 0.41 | 0.43 | 104.88 | 0.45 | 109.76 | 0.44 | 107.32 | 0.44 | 107.32 | 0.46 | 112.20 | 0.46 | 112.20 | 0.43 | 104.88 |
| 3 | 0.60 | 0.60 | 100.00 | 0.62 | 103.33 | 0.61 | 101.67 | 0.60 | 100.00 | 0.59 | 98.33 | 0.70 | 116.67 | 0.70 | 116.67 |
| 4 | 0.82 | 0.82 | 100.00 | 0.79 | 96.34 | 0.78 | 95.12 | 0.81 | 98.78 | 0.82 | 100.00 | 0.77 | 93.90 | 0.79 | 96.34 |
| 5 | 0.73 | 0.73 | 100.00 | 0.74 | 101.37 | 0.71 | 97.26 | 0.71 | 97.26 | 0.68 | 93.15 | 0.64 | 87.67 | 0.61 | 83.56 |
| 6 | 0.50 | 0.50 | 100.00 | 0.47 | 94.00 | 0.46 | 92.00 | 0.47 | 94.00 | 0.49 | 98.00 | 0.44 | 88.00 | 0.44 | 88.00 |
| mean | 0.60 | 0.60 | 100.81 | 0.60 | 100.80 | 0.59 | 98.89 | 0.59 | 99.25 | 0.59 | 99.97 | 0.59 | 99.74 | 0.58 | 98.24 |
| SD | 0.15 | 0.15 | 1.99 | 0.14 | 5.54 | 0.14 | 5.37 | 0.14 | 4.44 | 0.14 | 6.42 | 0.13 | 12.32 | 0.14 | 11.92 |
| SEM | 0.06 | 0.06 | 0.81 | 0.06 | 2.26 | 0.06 | 2.19 | 0.06 | 1.81 | 0.06 | 2.62 | 0.05 | 5.03 | 0.06 | 4.87 |
| t-test | | 0.363 | | 0.889 | | 0.426 | | 0.465 | | 0.718 | | 0.790 | | 0.644 | |

*%res =%Response

ตารางที่ 3 แรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาวในภาวะปกติ (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 248.00 | 251.00 | 101.21 | 252.00 | 101.61 | 253.00 | 102.02 | 254.00 | 102.42 | 254.00 | 102.42 | 256.00 | 103.23 | 258.00 | 104.03 |
| 2 | 239.00 | 234.00 | 97.91 | 233.00 | 97.49 | 240.00 | 100.42 | 237.00 | 99.16 | 239.00 | 100.00 | 243.00 | 101.67 | 240.00 | 100.42 |
| 3 | 267.00 | 258.00 | 96.63 | 261.00 | 97.75 | 258.00 | 96.63 | 256.00 | 95.88 | 256.00 | 95.88 | 260.00 | 97.38 | 264.00 | 98.88 |
| 4 | 263.00 | 262.00 | 99.62 | 264.00 | 100.38 | 265.00 | 100.76 | 265.00 | 100.76 | 265.00 | 100.76 | 264.00 | 100.38 | 266.00 | 101.14 |
| 5 | 263.00 | 263.00 | 100.00 | 263.00 | 100.00 | 263.00 | 100.00 | 263.00 | 100.00 | 263.00 | 100.00 | 265.00 | 100.76 | 269.00 | 102.28 |
| 6 | 272.00 | 271.00 | 99.63 | 273.00 | 100.37 | 274.00 | 100.74 | 275.00 | 101.10 | 277.00 | 101.84 | 275.00 | 101.10 | 275.00 | 101.10 |
| mean | 258.67 | 256.50 | 99.17 | 257.67 | 99.60 | 258.83 | 100.09 | 258.33 | 99.89 | 259.00 | 100.15 | 260.50 | 100.75 | 262.00 | 101.31 |
| SD | 12.53 | 12.82 | 1.63 | 13.82 | 1.63 | 11.62 | 1.83 | 12.83 | 2.25 | 12.73 | 2.31 | 10.67 | 1.93 | 12.15 | 1.74 |
| SEM | 5.12 | 5.23 | 0.67 | 5.64 | 0.67 | 4.74 | 0.75 | 5.24 | 0.92 | 5.20 | 0.94 | 4.36 | 0.79 | 4.96 | 0.71 |
| t-test | | 0.264 | | 0.576 | | 0.935 | | 0.895 | | 0.899 | | 0.406 | | 0.123 | |

*%res = %Response

ตารางที่ 4 ผลของ 95% alcohol ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------|
| 1 | 0.73 | 0.67 | 91.78 | 0.68 | 93.15 | 0.67 | 91.78 | 0.66 | 90.41 | 0.65 | 89.04 | 0.62 | 84.93 | 0.60 | 82.19 |
| 2 | 0.70 | 0.67 | 95.71 | 0.69 | 98.57 | 0.67 | 95.71 | 0.71 | 101.43 | 0.72 | 102.86 | 0.72 | 102.86 | 0.65 | 92.86 |
| 3 | 0.61 | 0.60 | 98.36 | 0.58 | 95.08 | 0.57 | 93.44 | 0.57 | 93.44 | 0.59 | 96.72 | 0.57 | 93.44 | 0.57 | 93.44 |
| 4 | 0.55 | 0.53 | 96.36 | 0.54 | 98.18 | 0.56 | 101.82 | 0.53 | 96.36 | 0.53 | 96.36 | 0.49 | 89.09 | 0.50 | 90.91 |
| 5 | 0.72 | 0.71 | 98.61 | 0.74 | 102.78 | 0.74 | 102.78 | 0.76 | 105.56 | 0.75 | 104.17 | 0.70 | 97.22 | 0.67 | 93.06 |
| 6 | 0.51 | 0.50 | 98.04 | 0.50 | 98.04 | 0.51 | 100.00 | 0.50 | 98.04 | 0.50 | 98.04 | 0.49 | 96.08 | 0.49 | 96.08 |
| mean | 0.64 | 0.61 | 96.48 | 0.62 | 97.63 | 0.62 | 97.59 | 0.62 | 97.54 | 0.62 | 97.86 | 0.60 | 93.94 | 0.58 | 91.42 |
| SD | 0.09 | 0.08 | 2.58 | 0.10 | 3.30 | 0.09 | 4.58 | 0.10 | 5.45 | 0.10 | 5.41 | 0.10 | 6.32 | 0.07 | 4.82 |
| SEM | 0.04 | 0.03 | 1.05 | 0.04 | 1.35 | 0.04 | 1.87 | 0.04 | 2.23 | 0.04 | 2.21 | 0.04 | 2.58 | 0.03 | 1.97 |
| t-test | | 0.034 | | 0.178 | | 0.250 | | 0.382 | | 0.438 | | 0.086 | | 0.014 | |

*%res = %Response

ตารางที่ 5

ผลของ 95% alcohol ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|-------|
| 1 | 0.84 | 0.76 | 90.48 | 0.78 | 92.86 | 0.77 | 91.67 | 0.78 | 92.86 | 0.76 | 90.48 | 0.71 | 84.52 | 0.69 | 82.14 |
| 2 | 0.61 | 0.62 | 101.64 | 0.64 | 104.92 | 0.64 | 104.92 | 0.65 | 106.56 | 0.62 | 101.64 | 0.59 | 96.72 | 0.59 | 96.72 |
| 3 | 0.65 | 0.63 | 96.92 | 0.60 | 92.31 | 0.57 | 87.69 | 0.58 | 89.23 | 0.57 | 87.69 | 0.55 | 84.62 | 0.52 | 80.00 |
| 4 | 0.67 | 0.66 | 98.51 | 0.66 | 98.51 | 0.68 | 101.49 | 0.66 | 98.51 | 0.66 | 98.51 | 0.66 | 98.51 | 0.65 | 97.01 |
| 5 | 0.73 | 0.73 | 100.00 | 0.74 | 101.37 | 0.73 | 100.00 | 0.75 | 102.74 | 0.73 | 100.00 | 0.68 | 93.15 | 0.65 | 89.04 |
| 6 | 0.62 | 0.67 | 108.06 | 0.66 | 106.45 | 0.63 | 101.61 | 0.61 | 98.39 | 0.58 | 93.55 | 0.59 | 95.16 | 0.55 | 88.71 |
| mean | 0.69 | 0.68 | 99.27 | 0.68 | 99.40 | 0.67 | 97.90 | 0.67 | 98.05 | 0.65 | 95.31 | 0.63 | 92.11 | 0.61 | 88.94 |
| SD | 0.09 | 0.06 | 5.78 | 0.07 | 5.97 | 0.07 | 6.68 | 0.08 | 6.32 | 0.08 | 5.60 | 0.06 | 6.10 | 0.07 | 7.10 |
| SEM | 0.04 | 0.02 | 2.36 | 0.03 | 2.44 | 0.03 | 2.73 | 0.03 | 2.58 | 0.03 | 2.29 | 0.03 | 2.49 | 0.03 | 2.90 |
| t-test | | 0.652 | | 0.709 | | 0.419 | | 0.434 | | 0.096 | | 0.034 | | 0.017 | |

*res = %Response

ตารางที่ 6

ผลของ 95% alcohol ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาว (%Response)

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| 1 | 321.00 | 339.00 | 105.61 | 350.00 | 109.03 | 340.00 | 105.92 | 352.00 | 109.66 | 350.00 | 109.03 | 321.00 | 100.00 | 298.00 | 92.83 | 352.00 | 109.66 |
| 2 | 289.00 | 326.00 | 112.80 | 338.00 | 116.96 | 338.00 | 116.96 | 335.00 | 115.92 | 326.00 | 112.80 | 291.00 | 100.69 | 281.00 | 97.23 | 338.00 | 116.96 |
| 3 | 287.00 | 298.00 | 103.83 | 306.00 | 106.62 | 306.00 | 106.62 | 302.00 | 105.23 | 293.00 | 102.09 | 263.00 | 91.64 | 259.00 | 90.24 | 309.00 | 107.67 |
| 4 | 298.00 | 303.00 | 101.68 | 317.00 | 106.38 | 318.00 | 106.71 | 311.00 | 104.36 | 309.00 | 103.69 | 288.00 | 96.64 | 284.00 | 95.30 | 317.00 | 106.38 |
| 5 | 251.00 | 287.00 | 114.34 | 287.00 | 114.34 | 276.00 | 109.96 | 267.00 | 106.37 | 256.00 | 101.99 | 229.00 | 91.24 | 218.00 | 86.85 | 291.00 | 115.94 |
| 6 | 236.00 | 232.00 | 98.31 | 235.00 | 99.58 | 236.00 | 100.00 | 237.00 | 100.42 | 238.00 | 100.85 | 236.00 | 100.00 | 227.00 | 96.19 | 236.00 | 100.00 |
| mean | 280.33 | 297.50 | 106.09 | 305.50 | 108.82 | 302.33 | 107.69 | 300.67 | 106.99 | 295.33 | 105.08 | 271.33 | 96.70 | 261.17 | 93.11 | 307.17 | 109.43 |
| SD | 31.34 | 37.32 | 6.30 | 41.19 | 6.21 | 40.11 | 5.57 | 42.68 | 5.30 | 42.32 | 4.77 | 35.33 | 4.32 | 32.58 | 3.97 | 40.96 | 6.33 |
| SEM | 12.79 | 15.23 | 2.57 | 16.81 | 2.54 | 16.37 | 2.28 | 17.42 | 2.16 | 17.27 | 1.95 | 14.42 | 1.76 | 13.30 | 1.62 | 16.72 | 2.58 |
| t-test | | 0.530 | | 0.015 | | 0.019 | | 0.025 | | 0.052 | | 0.117 | | 0.006 | | 0.012 | |

*%res = %Response

ตารางที่ 7 ผลของ capsaicin ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.40 | 0.38 | 95.00 | 0.34 | 85.00 | 0.32 | 80.00 | 0.30 | 75.00 | 0.33 | 82.50 | 0.32 | 80.00 | 0.34 | 85.00 | 0.40 | 100.00 |
| 2 | 0.72 | 0.71 | 98.61 | 0.65 | 90.28 | 0.59 | 81.94 | 0.58 | 80.56 | 0.61 | 84.72 | 0.70 | 97.22 | 0.67 | 93.06 | 0.71 | 98.61 |
| 3 | 0.38 | 0.40 | 105.26 | 0.40 | 105.26 | 0.40 | 105.26 | 0.40 | 105.26 | 0.40 | 105.26 | 0.41 | 107.89 | 0.42 | 110.53 | 0.44 | 115.79 |
| 4 | 0.60 | 0.48 | 80.00 | 0.47 | 78.33 | 0.48 | 80.00 | 0.47 | 78.33 | 0.48 | 80.00 | 0.47 | 78.33 | 0.50 | 83.33 | 0.48 | 80.00 |
| 5 | 0.34 | 0.42 | 123.53 | 0.41 | 120.59 | 0.39 | 114.71 | 0.37 | 108.82 | 0.36 | 105.88 | 0.35 | 102.94 | 0.37 | 108.82 | 0.42 | 123.53 |
| 6 | 0.55 | 0.54 | 98.18 | 0.53 | 96.36 | 0.52 | 94.55 | 0.51 | 92.73 | 0.51 | 92.73 | 0.49 | 89.09 | 0.51 | 92.73 | 0.54 | 98.18 |
| mean | 0.50 | 0.49 | 100.10 | 0.47 | 95.97 | 0.45 | 92.74 | 0.44 | 90.12 | 0.45 | 91.85 | 0.46 | 92.58 | 0.47 | 95.58 | 0.50 | 102.69 |
| SD | 0.15 | 0.12 | 14.22 | 0.11 | 15.21 | 0.10 | 14.72 | 0.10 | 14.46 | 0.10 | 11.46 | 0.14 | 12.14 | 0.12 | 11.62 | 0.11 | 15.26 |
| SEM | 0.06 | 0.05 | 5.81 | 0.05 | 6.21 | 0.04 | 6.01 | 0.04 | 5.90 | 0.04 | 4.68 | 0.06 | 4.95 | 0.05 | 4.74 | 0.05 | 6.23 |
| t-test | | 0.722 | | 0.323 | | 0.171 | | 0.106 | | 0.102 | | 0.149 | | 0.235 | | 1.000 | |

*%res = %Response

ตารางที่ 8 ผลของ capsaicin ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.93 | 0.97 | 104.30 | 1.02 | 109.68 | 0.98 | 105.38 | 0.94 | 101.08 | 0.92 | 98.92 | 0.80 | 86.02 | 0.76 | 81.72 | 1.01 | 108.60 |
| 2 | 0.71 | 0.73 | 102.82 | 0.76 | 107.04 | 0.78 | 109.86 | 0.72 | 101.41 | 0.67 | 94.37 | 0.54 | 76.06 | 0.52 | 73.24 | 0.76 | 107.04 |
| 3 | 0.37 | 0.42 | 113.51 | 0.51 | 137.84 | 0.53 | 143.24 | 0.49 | 132.43 | 0.47 | 127.03 | 0.44 | 118.92 | 0.43 | 116.22 | 0.53 | 143.24 |
| 4 | 0.72 | 0.82 | 113.89 | 0.87 | 120.83 | 0.84 | 116.67 | 0.79 | 109.72 | 0.79 | 109.72 | 0.70 | 97.22 | 0.70 | 97.22 | 0.86 | 119.44 |
| 5 | 0.60 | 0.70 | 116.67 | 0.72 | 120.00 | 0.69 | 115.00 | 0.66 | 110.00 | 0.61 | 101.67 | 0.47 | 78.33 | 0.37 | 61.67 | 0.73 | 121.67 |
| 6 | 0.68 | 0.72 | 105.88 | 0.73 | 107.35 | 0.71 | 104.41 | 0.70 | 102.94 | 0.68 | 100.00 | 0.72 | 105.88 | 0.63 | 92.65 | 0.73 | 107.35 |
| mean | 0.67 | 0.73 | 109.51 | 0.77 | 117.12 | 0.76 | 115.76 | 0.72 | 109.60 | 0.69 | 105.28 | 0.61 | 93.74 | 0.57 | 87.12 | 0.77 | 117.89 |
| SD | 0.18 | 0.18 | 5.86 | 0.17 | 11.86 | 0.15 | 14.34 | 0.15 | 11.88 | 0.15 | 11.77 | 0.15 | 16.75 | 0.15 | 19.23 | 0.16 | 13.96 |
| SEM | 0.07 | 0.07 | 2.39 | 0.07 | 4.84 | 0.06 | 5.85 | 0.06 | 4.85 | 0.06 | 4.81 | 0.06 | 6.84 | 0.06 | 7.85 | 0.06 | 5.70 |
| t-test | | 0.008 | | 0.003 | | 0.007 | | 0.042 | | 0.360 | | 0.225 | | 0.083 | | 0.003 | |

*%res = %Response

ตารางที่ 9 ผลของ capsaicin ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาว (%Response)

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 267.00 | 381.00 | 142.70 | 410.00 | 153.56 | 425.00 | 159.18 | 428.00 | 160.30 | 431.00 | 161.42 | 434.00 | 162.55 | 429.00 | 160.67 | 422.00 | 158.05 |
| 2 | 279.00 | 366.00 | 131.18 | 401.00 | 143.73 | 412.00 | 147.67 | 416.00 | 149.10 | 419.00 | 150.18 | 419.00 | 150.18 | 417.00 | 149.46 | 422.00 | 151.25 |
| 3 | 231.00 | 362.00 | 156.71 | 382.00 | 165.37 | 387.00 | 167.53 | 392.00 | 169.70 | 393.00 | 170.13 | 394.00 | 170.56 | 393.00 | 170.13 | 394.00 | 170.56 |
| 4 | 285.00 | 353.00 | 123.86 | 379.00 | 132.98 | 377.00 | 132.28 | 379.00 | 132.98 | 381.00 | 133.68 | 380.00 | 133.33 | 379.00 | 132.98 | 382.00 | 134.04 |
| 5 | 267.00 | 368.00 | 137.83 | 401.00 | 150.19 | 408.00 | 152.81 | 411.00 | 153.93 | 413.00 | 154.68 | 416.00 | 155.81 | 416.00 | 155.81 | 419.00 | 156.93 |
| 6 | 284.00 | 398.00 | 140.14 | 445.00 | 156.69 | 456.00 | 160.56 | 458.00 | 161.27 | 462.00 | 162.68 | 438.00 | 154.23 | 464.00 | 163.38 | 468.00 | 164.79 |
| mean | 268.83 | 371.33 | 138.74 | 403.00 | 150.42 | 410.83 | 153.34 | 414.00 | 154.55 | 416.50 | 155.46 | 413.50 | 154.44 | 416.33 | 155.41 | 417.83 | 155.94 |
| SD | 20.16 | 15.92 | 11.13 | 23.82 | 11.15 | 28.15 | 12.36 | 27.76 | 12.67 | 28.68 | 12.69 | 22.63 | 12.58 | 29.57 | 13.01 | 29.68 | 12.64 |
| SEM | 8.23 | 6.50 | 4.54 | 9.72 | 4.55 | 11.49 | 5.04 | 11.33 | 5.17 | 11.70 | 5.18 | 9.23 | 5.13 | 12.07 | 5.31 | 12.11 | 5.16 |
| t-test | | 0.0000 | | 0.0000 | | 0.0000 | | 0.0000 | | 0.0000 | | 0.0000 | | 0.0000 | | 0.0000 | |

*%res = %Response

ตารางที่ 10 ผลของ tyramine ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.66 | 0.98 | 148.48 | 0.78 | 118.18 | 0.70 | 106.06 | 0.65 | 98.48 | 0.62 | 93.94 | 0.56 | 84.85 | 0.53 | 80.30 | 1.01 | 153.03 |
| 2 | 0.87 | 1.28 | 147.13 | 1.00 | 114.94 | 0.93 | 106.90 | 0.88 | 101.15 | 0.82 | 94.25 | 0.73 | 83.91 | 0.75 | 86.21 | 1.31 | 150.57 |
| 3 | 0.91 | 1.04 | 114.29 | 0.86 | 94.51 | 0.81 | 89.01 | 0.80 | 87.91 | 0.74 | 81.32 | 0.68 | 74.73 | 0.68 | 74.73 | 1.09 | 119.78 |
| 4 | 0.47 | 0.67 | 142.55 | 0.63 | 134.04 | 0.57 | 121.28 | 0.93 | 197.87 | 0.52 | 110.64 | 0.50 | 106.38 | 0.49 | 104.26 | 0.68 | 144.68 |
| 5 | 0.64 | 0.91 | 142.19 | 0.71 | 110.94 | 0.71 | 110.94 | 0.70 | 109.38 | 0.63 | 98.44 | 0.63 | 98.44 | 0.61 | 95.31 | 0.92 | 143.75 |
| 6 | 0.71 | 1.10 | 154.93 | 0.71 | 100.00 | 0.71 | 100.00 | 0.64 | 90.14 | 0.58 | 81.69 | 0.53 | 74.65 | 0.57 | 80.28 | 1.10 | 154.93 |
| mean | 0.71 | 1.00 | 141.59 | 0.78 | 112.10 | 0.74 | 105.70 | 0.77 | 114.16 | 0.65 | 93.38 | 0.61 | 87.16 | 0.61 | 86.85 | 1.02 | 144.46 |
| SD | 0.16 | 0.20 | 14.16 | 0.13 | 14.03 | 0.12 | 10.79 | 0.12 | 41.74 | 0.11 | 11.01 | 0.09 | 12.84 | 0.10 | 11.03 | 0.21 | 12.88 |
| SEM | 0.07 | 0.08 | 5.78 | 0.05 | 5.73 | 0.05 | 4.41 | 0.05 | 17.04 | 0.04 | 4.50 | 0.04 | 5.24 | 0.04 | 4.50 | 0.09 | 5.26 |
| t-test | | 0.001 | | 0.085 | | 0.374 | | 0.531 | | 0.135 | | 0.05 | | 0.033 | | 0.001 | |

**%res = %Response

ตารางที่ 11 ผลของ tyramine ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.73 | 1.14 | 156.16 | 1.10 | 150.68 | 1.10 | 150.68 | 1.07 | 146.58 | 1.04 | 142.47 | 1.01 | 138.36 | 0.96 | 131.51 | 1.14 | 156.16 |
| 2 | 0.80 | 1.18 | 147.50 | 1.24 | 155.00 | 1.22 | 152.50 | 1.22 | 152.50 | 1.19 | 148.75 | 1.13 | 141.25 | 1.08 | 135.00 | 1.24 | 155.00 |
| 3 | 1.16 | 1.64 | 141.38 | 1.68 | 144.83 | 1.63 | 140.52 | 1.61 | 138.79 | 1.59 | 137.07 | 1.52 | 131.03 | 1.47 | 126.72 | 1.70 | 146.55 |
| 4 | 0.72 | 0.97 | 134.72 | 0.99 | 137.50 | 0.97 | 134.72 | 0.96 | 133.33 | 0.96 | 133.33 | 0.92 | 127.78 | 0.91 | 126.39 | 1.01 | 140.28 |
| 5 | 0.47 | 0.81 | 172.34 | 0.88 | 187.23 | 0.86 | 182.98 | 0.85 | 180.85 | 0.84 | 178.72 | 0.80 | 170.21 | 0.76 | 161.70 | 0.89 | 189.36 |
| 6 | 0.74 | 1.14 | 154.05 | 1.14 | 154.05 | 1.11 | 150.00 | 1.12 | 151.35 | 1.11 | 150.00 | 1.01 | 136.49 | 0.97 | 131.08 | 1.15 | 155.41 |
| mean | 0.77 | 1.15 | 151.03 | 1.17 | 154.88 | 1.15 | 151.90 | 1.14 | 150.57 | 1.12 | 148.39 | 1.07 | 140.85 | 1.03 | 135.40 | 1.19 | 157.13 |
| SD | 0.22 | 0.28 | 13.12 | 0.28 | 17.14 | 0.27 | 16.71 | 0.26 | 16.57 | 0.26 | 16.20 | 0.25 | 15.20 | 0.24 | 13.28 | 0.28 | 16.99 |
| SEM | 0.09 | 0.11 | 5.36 | 0.11 | 6.99 | 0.11 | 6.82 | 0.11 | 6.76 | 0.11 | 6.61 | 0.10 | 6.20 | 0.10 | 5.42 | 0.11 | 6.93 |
| t-test | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |

*%res = %Response

ตารางที่ 12 ผลของ tyramine ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาว (%Response)

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 219.00 | 228.00 | 104.11 | 232.00 | 105.94 | 234.00 | 106.85 | 237.00 | 108.22 | 235.00 | 107.31 | 236.00 | 107.76 | 233.00 | 106.39 | 235.00 | 107.31 |
| 2 | 234.00 | 231.00 | 98.72 | 234.00 | 100.00 | 240.00 | 102.56 | 248.00 | 105.98 | 240.00 | 102.56 | 245.00 | 104.70 | 255.00 | 108.97 | 255.00 | 108.97 |
| 3 | 256.00 | 254.00 | 99.22 | 254.00 | 99.22 | 254.00 | 99.22 | 252.00 | 98.44 | 253.00 | 98.83 | 248.00 | 96.88 | 244.00 | 95.31 | 255.00 | 99.61 |
| 4 | 258.00 | 255.00 | 98.84 | 254.00 | 98.45 | 254.00 | 98.45 | 252.00 | 97.67 | 252.00 | 97.67 | 249.00 | 96.51 | 247.00 | 95.74 | 256.00 | 99.22 |
| 5 | 271.00 | 273.00 | 100.74 | 276.00 | 101.85 | 277.00 | 102.21 | 277.00 | 102.21 | 279.00 | 102.95 | 279.00 | 102.95 | 279.00 | 102.95 | 280.00 | 103.32 |
| 6 | 234.00 | 231.00 | 98.72 | 230.00 | 98.29 | 230.00 | 98.29 | 230.00 | 98.29 | 230.00 | 98.29 | 225.00 | 96.15 | 223.00 | 95.30 | 232.00 | 99.15 |
| 7 | 198.00 | 201.00 | 101.52 | 204.00 | 103.03 | 204.00 | 103.03 | 204.00 | 103.03 | 204.00 | 103.03 | 204.00 | 103.03 | 204.00 | 103.03 | 204.00 | 103.03 |
| 8 | 209.00 | 210.00 | 100.48 | 212.00 | 101.44 | 215.00 | 102.87 | 226.00 | 108.13 | 222.00 | 106.22 | 228.00 | 109.09 | 232.00 | 111.00 | 229.00 | 109.57 |
| mean | 234.88 | 235.38 | 100.29 | 237.00 | 101.03 | 238.50 | 101.69 | 240.75 | 102.75 | 239.38 | 102.11 | 239.25 | 102.13 | 239.63 | 102.34 | 243.25 | 103.77 |
| SD | 25.55 | 24.10 | 1.87 | 23.59 | 2.60 | 23.30 | 2.90 | 21.77 | 4.37 | 22.60 | 3.60 | 21.93 | 5.12 | 22.39 | 6.31 | 23.08 | 4.36 |
| SEM | 9.03 | 8.52 | 0.66 | 8.34 | 0.92 | 8.23 | 1.03 | 7.69 | 1.55 | 7.99 | 1.27 | 7.75 | 1.81 | 7.91 | 2.23 | 8.15 | 1.54 |
| t-test | | 0.747 | | 0.338 | | 0.161 | | 0.134 | | 0.160 | | 0.322 | | 0.385 | | 0.045 | |

*%res = %Response

ตารางที่ 13 ผลของ tyramine หลังให้ reserpine 5mg/Kg 2 วันทาง IP ต่ออัตราการเต้นของหัวใจของบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 1.26 | 1.39 | 110.32 | 1.27 | 100.79 | 1.25 | 99.21 | 1.34 | 106.35 | 1.27 | 100.79 | 1.22 | 96.83 | 1.19 | 94.44 | 1.40 | 111.11 |
| 2 | 0.99 | 1.03 | 104.04 | 1.01 | 102.02 | 1.02 | 103.03 | 0.95 | 95.96 | 0.93 | 93.94 | 0.92 | 92.93 | 0.86 | 86.87 | 1.02 | 103.03 |
| 3 | 1.15 | 1.25 | 108.70 | 1.29 | 112.17 | 1.25 | 108.70 | 1.22 | 106.09 | 1.22 | 106.09 | 1.19 | 103.48 | 1.20 | 104.35 | 1.29 | 112.17 |
| 4 | 0.77 | 0.77 | 100.00 | 0.78 | 101.30 | 0.78 | 101.30 | 0.76 | 98.70 | 0.75 | 97.40 | 0.72 | 93.51 | 0.73 | 94.81 | 0.77 | 100.00 |
| 5 | 0.90 | 0.88 | 97.78 | 0.88 | 97.78 | 0.87 | 96.67 | 0.86 | 95.56 | 0.87 | 96.67 | 0.89 | 98.89 | 0.89 | 98.89 | 0.90 | 100.00 |
| 6 | 1.31 | 1.33 | 101.53 | 1.34 | 102.29 | 1.34 | 102.29 | 1.33 | 101.53 | 1.32 | 100.76 | 1.33 | 101.53 | 1.32 | 100.76 | 1.30 | 99.24 |
| 7 | 1.44 | 1.40 | 97.22 | 1.39 | 96.53 | 1.36 | 94.44 | 1.36 | 94.44 | 1.34 | 93.06 | 1.30 | 90.28 | 1.24 | 86.11 | 1.41 | 97.92 |
| 8 | 1.17 | 1.17 | 100.00 | 1.13 | 96.58 | 1.10 | 94.02 | 1.05 | 89.74 | 1.05 | 89.74 | 0.96 | 82.05 | 0.88 | 75.21 | 1.15 | 98.29 |
| mean | 1.12 | 1.15 | 102.45 | 1.14 | 101.18 | 1.12 | 99.96 | 1.11 | 98.55 | 1.09 | 97.31 | 1.07 | 94.94 | 1.04 | 92.68 | 1.16 | 102.72 |
| SD | 0.22 | 0.24 | 4.86 | 0.23 | 5.03 | 0.22 | 4.93 | 0.24 | 5.81 | 0.23 | 5.19 | 0.22 | 6.86 | 0.22 | 9.48 | 0.24 | 5.73 |
| SEM | 0.08 | 0.08 | 1.72 | 0.08 | 1.78 | 0.08 | 1.74 | 0.08 | 2.05 | 0.08 | 1.83 | 0.08 | 2.42 | 0.08 | 3.35 | 0.08 | 2.02 |
| t-test | | 0.210 | | 0.568 | | 0.908 | | 0.562 | | 0.216 | | 0.091 | | 0.075 | | 0.243 | |

*%res = %Response

ตารางที่ 14 ผลของ tyramine หลังให้ reserpine 2mg/Kg 2วัน ทาง IP ต่อแรงบีบตัวของหัวใจของหนูขาวที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.44 | 0.48 | 109.09 | 0.49 | 111.36 | 0.50 | 113.64 | 0.50 | 113.64 | 0.49 | 111.36 | 0.47 | 106.82 | 0.49 | 111.36 | 0.49 | 111.36 |
| 2 | 0.63 | 0.70 | 111.11 | 0.70 | 111.11 | 0.70 | 111.11 | 0.68 | 107.94 | 0.68 | 107.94 | 0.64 | 101.59 | 0.62 | 98.41 | 0.71 | 112.70 |
| 3 | 0.83 | 0.84 | 101.20 | 0.82 | 98.80 | 0.81 | 97.59 | 0.81 | 97.59 | 0.80 | 96.39 | 0.76 | 91.57 | 0.73 | 87.95 | 0.85 | 102.41 |
| 4 | 0.80 | 0.82 | 102.50 | 0.84 | 105.00 | 0.83 | 103.75 | 0.84 | 105.00 | 0.80 | 100.00 | 0.72 | 90.00 | 0.71 | 88.75 | 0.85 | 106.25 |
| 5 | 0.54 | 0.54 | 100.00 | 0.54 | 100.00 | 0.53 | 98.15 | 0.54 | 100.00 | 0.55 | 101.85 | 0.54 | 100.00 | 0.53 | 98.15 | 0.54 | 100.00 |
| 6 | 0.88 | 0.81 | 92.05 | 0.79 | 89.77 | 0.78 | 88.64 | 0.76 | 86.36 | 0.75 | 85.23 | 0.68 | 77.27 | 0.64 | 72.73 | 0.81 | 92.05 |
| 7 | 0.91 | 0.88 | 96.70 | 0.89 | 97.80 | 0.91 | 100.00 | 0.87 | 95.60 | 0.87 | 95.60 | 0.85 | 93.41 | 0.83 | 91.21 | 0.88 | 96.70 |
| 8 | 1.00 | 0.97 | 97.00 | 0.95 | 95.00 | 0.91 | 91.00 | 0.89 | 89.00 | 0.89 | 89.00 | 0.77 | 77.00 | 0.69 | 69.00 | 0.98 | 98.00 |
| mean | 0.75 | 0.76 | 101.21 | 0.75 | 101.11 | 0.75 | 100.48 | 0.74 | 99.39 | 0.73 | 98.42 | 0.68 | 92.21 | 0.66 | 89.70 | 0.76 | 102.43 |
| SD | 0.20 | 0.17 | 6.38 | 0.16 | 7.59 | 0.16 | 8.79 | 0.15 | 9.28 | 0.15 | 8.84 | 0.13 | 10.84 | 0.11 | 13.83 | 0.17 | 7.23 |
| SEM | 0.07 | 0.06 | 2.26 | 0.06 | 2.68 | 0.06 | 3.11 | 0.05 | 3.28 | 0.05 | 3.12 | 0.04 | 3.83 | 0.04 | 4.89 | 0.06 | 2.56 |
| t-test | | 0.939 | | 0.949 | | 0.745 | | 0.499 | | 0.328 | | 0.062 | | 0.055 | | 0.586 | |

*%res = %Response

ตารางที่ 15 ผลของ tyramine หลังให้ reserpine 5mg/Kg 2วันทาง IP ต่อแรงบีบตัวของหัวใจของหนูขาวที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 225.00 | 284.00 | 126.22 | 300.00 | 133.33 | 298.00 | 132.44 | 293.00 | 130.22 | 288.00 | 128.00 | 238.00 | 105.78 | 217.00 | 96.44 | 300.00 | 133.33 |
| 2 | 234.00 | 228.00 | 97.44 | 240.00 | 102.56 | 240.00 | 102.56 | 237.00 | 101.28 | 234.00 | 100.00 | 231.00 | 98.72 | 232.00 | 99.15 | 240.00 | 102.56 |
| 3 | 237.00 | 251.00 | 105.91 | 283.00 | 119.41 | 296.00 | 124.89 | 290.00 | 122.36 | 275.00 | 116.03 | 243.00 | 102.53 | 236.00 | 99.58 | 297.00 | 125.32 |
| 4 | 239.00 | 239.00 | 100.00 | 251.00 | 105.02 | 277.00 | 115.90 | 298.00 | 124.69 | 296.00 | 123.85 | 245.00 | 102.51 | 240.00 | 100.42 | 300.00 | 125.52 |
| 5 | 266.00 | 279.00 | 104.89 | 323.00 | 121.43 | 328.00 | 123.31 | 322.00 | 121.05 | 310.00 | 116.54 | 256.00 | 96.24 | 248.00 | 93.23 | 331.00 | 124.44 |
| 6 | 217.00 | 248.00 | 114.29 | 258.00 | 118.89 | 259.00 | 119.35 | 259.00 | 119.35 | 257.00 | 118.43 | 237.00 | 109.22 | 218.00 | 100.46 | 260.00 | 119.82 |
| 7 | 207.00 | 213.00 | 102.90 | 216.00 | 104.35 | 215.00 | 103.86 | 215.00 | 103.86 | 214.00 | 103.38 | 212.00 | 102.42 | 209.00 | 100.97 | 204.00 | 98.55 |
| 8 | 208.00 | 209.00 | 100.48 | 212.00 | 101.92 | 213.00 | 102.40 | 212.00 | 101.92 | 212.00 | 101.92 | 206.00 | 99.04 | 207.00 | 99.52 | 229.00 | 110.10 |
| mean | 229.13 | 243.88 | 106.51 | 260.38 | 113.37 | 265.75 | 115.59 | 265.75 | 115.59 | 260.75 | 113.52 | 233.50 | 102.06 | 225.88 | 98.72 | 270.13 | 117.45 |
| SD | 19.43 | 27.66 | 9.46 | 39.32 | 11.52 | 41.44 | 11.50 | 41.18 | 11.44 | 37.62 | 10.53 | 16.84 | 4.14 | 15.17 | 2.61 | 43.57 | 12.34 |
| SEM | 6.87 | 9.78 | 3.34 | 13.89 | 4.07 | 14.64 | 4.06 | 14.55 | 4.04 | 13.29 | 3.72 | 5.95 | 1.46 | 5.36 | 0.92 | 15.39 | 4.36 |
| t-test | | 0.089 | | 0.014 | | 0.007 | | 0.007 | | 0.008 | | 0.232 | | 0.213 | | 0.006 | |

*%res = %Response

ตารางที่ 16 ผลของ capsaicin หลังให้ reserpine 5mg/Kg 2 วันทาง IP ต่ออัตราการเต้นของหัวใจของบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|--------|-------|--------|
| 1 | 0.89 | 1.01 | 113.48 | 0.96 | 107.87 | 0.86 | 96.63 | 0.81 | 91.01 | 0.76 | 85.39 | 0.88 | 98.88 | 0.91 | 102.25 | 1.01 | 113.48 |
| 2 | 0.77 | 0.77 | 100.00 | 0.73 | 94.81 | 0.72 | 93.51 | 0.69 | 89.61 | 0.69 | 89.61 | 0.63 | 81.82 | 0.70 | 90.91 | 0.76 | 98.70 |
| 3 | 0.93 | 0.90 | 96.77 | 0.82 | 88.17 | 0.79 | 84.95 | 0.76 | 81.72 | 0.78 | 83.87 | 0.86 | 92.47 | 0.86 | 92.47 | 0.90 | 96.77 |
| 4 | 0.61 | 0.61 | 100.00 | 0.60 | 98.36 | 0.55 | 90.16 | 0.49 | 80.33 | 0.47 | 77.05 | 0.58 | 95.08 | 0.58 | 95.08 | 0.61 | 100.00 |
| 5 | 0.74 | 0.77 | 104.05 | 0.67 | 90.54 | 0.59 | 79.73 | 0.60 | 81.08 | 0.64 | 86.49 | 0.69 | 93.24 | 0.74 | 100.00 | 0.76 | 102.70 |
| 6 | 1.23 | 1.32 | 107.32 | 1.22 | 99.19 | 1.15 | 93.50 | 1.08 | 87.80 | 1.04 | 84.55 | 1.01 | 82.11 | 1.06 | 86.18 | 1.30 | 105.69 |
| 7 | 1.05 | 1.06 | 100.95 | 1.07 | 101.90 | 1.03 | 98.10 | 1.03 | 98.10 | 1.04 | 99.05 | 1.05 | 100.00 | 0.99 | 94.29 | 1.06 | 100.95 |
| 8 | 0.76 | 0.76 | 100.00 | 0.82 | 107.89 | 0.75 | 98.68 | 0.77 | 101.32 | 0.75 | 98.68 | 0.76 | 100.00 | 0.73 | 96.05 | 0.82 | 107.89 |
| mean | 0.87 | 0.90 | 102.82 | 0.86 | 98.59 | 0.81 | 91.91 | 0.78 | 88.87 | 0.77 | 88.09 | 0.81 | 92.95 | 0.82 | 94.65 | 0.90 | 103.27 |
| SD | 0.20 | 0.22 | 5.34 | 0.21 | 7.29 | 0.21 | 6.67 | 0.20 | 7.85 | 0.19 | 7.53 | 0.17 | 7.37 | 0.16 | 5.06 | 0.22 | 5.49 |
| SEM | 0.07 | 0.08 | 1.89 | 0.07 | 2.57 | 0.07 | 2.36 | 0.07 | 2.77 | 0.07 | 2.66 | 0.06 | 2.61 | 0.06 | 1.79 | 0.08 | 1.94 |
| t-test | | 0.173 | | 0.622 | | 0.009 | | 0.004 | | 0.003 | | 0.051 | | 0.041 | | 0.131 | |

*%res = %Response

ตารางที่ 17. ผลของ capsaicin หลังให้ reserpine 5mg/Kg 2วัน ทาง IP ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.36 | 0.58 | 161.11 | 0.65 | 180.56 | 0.65 | 180.56 | 0.62 | 172.22 | 0.56 | 155.56 | 0.46 | 127.78 | 0.40 | 111.11 | 0.67 | 186.11 |
| 2 | 0.49 | 0.48 | 97.96 | 0.47 | 95.92 | 0.47 | 95.92 | 0.47 | 95.92 | 0.46 | 93.88 | 0.50 | 102.04 | 0.46 | 93.88 | 0.52 | 106.12 |
| 3 | 0.54 | 0.56 | 103.70 | 0.56 | 103.70 | 0.56 | 103.70 | 0.59 | 109.26 | 0.59 | 109.26 | 0.60 | 111.11 | 0.55 | 101.85 | 0.61 | 112.96 |
| 4 | 0.46 | 0.48 | 104.35 | 0.49 | 106.52 | 0.50 | 108.70 | 0.48 | 104.35 | 0.50 | 108.70 | 0.46 | 100.00 | 0.47 | 102.17 | 0.52 | 113.04 |
| 5 | 0.52 | 0.56 | 107.69 | 0.54 | 103.85 | 0.56 | 107.69 | 0.54 | 103.85 | 0.54 | 103.85 | 0.49 | 94.23 | 0.49 | 94.23 | 0.56 | 107.69 |
| 6 | 0.57 | 0.80 | 140.35 | 0.86 | 150.88 | 0.86 | 150.88 | 0.90 | 157.89 | 0.85 | 149.12 | 0.74 | 129.82 | 0.63 | 110.53 | 0.86 | 150.88 |
| 7 | 0.60 | 0.63 | 105.00 | 0.63 | 105.00 | 0.67 | 111.67 | 0.61 | 101.67 | 0.63 | 105.00 | 0.61 | 101.67 | 0.63 | 105.00 | 0.66 | 110.00 |
| 8 | 0.37 | 0.40 | 108.11 | 0.43 | 116.22 | 0.42 | 113.51 | 0.43 | 116.22 | 0.41 | 110.81 | 0.43 | 116.22 | 0.43 | 116.22 | 0.43 | 116.22 |
| mean | 0.49 | 0.56 | 116.03 | 0.58 | 120.33 | 0.59 | 121.58 | 0.58 | 120.17 | 0.57 | 117.02 | 0.54 | 110.36 | 0.51 | 104.37 | 0.60 | 125.38 |
| SD | 0.09 | 0.12 | 22.34 | 0.14 | 29.63 | 0.14 | 28.88 | 0.15 | 28.57 | 0.13 | 22.48 | 0.11 | 13.25 | 0.09 | 8.00 | 0.13 | 28.41 |
| SEM | 0.03 | 0.04 | 7.89 | 0.05 | 10.47 | 0.05 | 10.20 | 0.05 | 10.10 | 0.05 | 7.94 | 0.04 | 4.68 | 0.03 | 2.83 | 0.05 | 10.04 |
| t-test | | 0.068 | | 0.082 | | 0.058 | | 0.086 | | 0.071 | | 0.076 | | 0.180 | | 0.025 | |

*%res = %Response

ตารางที่ 18 ผลของ capsaicin หลังให้ reserpine 5 mg/Kg 2 วันทาง IP ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 225.00 | 229.00 | 101.78 | 234.00 | 104.00 | 239.00 | 106.22 | 242.00 | 107.56 | 245.00 | 108.89 | 251.00 | 111.56 | 251.00 | 111.56 | 250.00 | 111.11 |
| 2 | 209.00 | 207.00 | 99.04 | 209.00 | 100.00 | 210.00 | 100.48 | 212.00 | 101.44 | 213.00 | 101.91 | 213.00 | 101.91 | 213.00 | 101.91 | 213.00 | 101.91 |
| 3 | 237.00 | 236.00 | 99.58 | 239.00 | 100.84 | 240.00 | 101.27 | 241.00 | 101.69 | 225.00 | 94.94 | 252.00 | 106.33 | 255.00 | 107.59 | 242.00 | 102.11 |
| 4 | 242.00 | 242.00 | 100.00 | 279.00 | 115.29 | 254.00 | 104.96 | 257.00 | 106.20 | 263.00 | 108.68 | 264.00 | 109.09 | 265.00 | 109.50 | 267.00 | 110.33 |
| 5 | 212.00 | 213.00 | 100.47 | 215.00 | 101.42 | 216.00 | 101.89 | 218.00 | 102.83 | 218.00 | 102.83 | 223.00 | 105.19 | 225.00 | 106.13 | 224.00 | 105.66 |
| 6 | 220.00 | 219.00 | 99.55 | 219.00 | 99.55 | 219.00 | 99.55 | 221.00 | 100.45 | 223.00 | 101.36 | 227.00 | 103.18 | 228.00 | 103.64 | 229.00 | 104.09 |
| 7 | 230.00 | 232.00 | 100.87 | 232.00 | 100.87 | 233.00 | 101.30 | 234.00 | 101.74 | 236.00 | 102.61 | 234.00 | 101.74 | 233.00 | 101.30 | 235.00 | 102.17 |
| mean | 225.00 | 225.43 | 100.18 | 232.43 | 103.14 | 230.14 | 102.24 | 232.14 | 103.13 | 231.86 | 103.03 | 237.71 | 105.57 | 238.57 | 105.95 | 237.14 | 105.34 |
| SD | 12.30 | 12.77 | 0.93 | 23.27 | 5.55 | 15.72 | 2.43 | 15.95 | 2.68 | 17.48 | 4.76 | 18.38 | 3.71 | 18.72 | 3.87 | 17.83 | 3.92 |
| SEM | 4.64 | 4.82 | 0.35 | 8.78 | 2.09 | 5.93 | 0.92 | 6.02 | 1.01 | 6.60 | 1.80 | 6.94 | 1.40 | 7.07 | 1.46 | 6.73 | 1.48 |
| t-test | | 0.60 | | 0.19 | | 0.05 | | 0.02 | | 0.16 | | 0.01 | | 0.01 | | 0.01 | |

*%res = %Response

ตารางที่ 19 ผลของ ouabain ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|------|--------|
| 1 | 0.43 | 0.43 | 100.00 | 0.43 | 100.00 | 0.43 | 100.00 | 0.43 | 100.00 | 0.43 | 100.00 | 0.42 | 97.67 | 0.39 | 90.70 | 0.43 | 100.00 |
| 2 | 0.50 | 0.52 | 104.00 | 0.53 | 106.00 | 0.51 | 102.00 | 0.49 | 98.00 | 0.50 | 100.00 | 0.48 | 96.00 | 0.47 | 94.00 | 0.53 | 106.00 |
| 3 | 0.49 | 0.52 | 106.12 | 0.53 | 108.16 | 0.53 | 108.16 | 0.52 | 106.12 | 0.52 | 106.12 | 0.52 | 106.12 | 0.49 | 100.00 | 0.53 | 108.16 |
| 4 | 0.44 | 0.47 | 106.82 | 0.48 | 109.09 | 0.45 | 102.27 | 0.44 | 100.00 | 0.42 | 95.45 | 0.32 | 72.73 | 0.38 | 86.36 | 0.48 | 109.09 |
| 5 | 0.71 | 0.67 | 94.37 | 0.67 | 94.37 | 0.67 | 94.37 | 0.65 | 91.55 | 0.65 | 91.55 | 0.66 | 92.96 | 0.63 | 88.73 | 0.68 | 95.77 |
| 6 | 0.50 | 0.49 | 98.00 | 0.49 | 98.00 | 0.48 | 96.00 | 0.49 | 98.00 | 0.48 | 96.00 | 0.50 | 100.00 | 0.48 | 96.00 | 0.49 | 98.00 |
| 7 | 0.45 | 0.43 | 95.56 | 0.46 | 102.22 | 0.45 | 100.00 | 0.45 | 100.00 | 0.45 | 100.00 | 0.42 | 93.33 | 0.42 | 93.33 | 0.45 | 100.00 |
| mean | 0.50 | 0.50 | 100.69 | 0.51 | 102.55 | 0.50 | 100.40 | 0.50 | 99.10 | 0.49 | 98.45 | 0.47 | 94.12 | 0.47 | 92.73 | 0.51 | 102.43 |
| SD | 0.10 | 0.08 | 5.03 | 0.08 | 5.48 | 0.08 | 4.52 | 0.08 | 4.30 | 0.08 | 4.63 | 0.11 | 10.44 | 0.08 | 4.59 | 0.08 | 5.26 |
| SEM | 0.04 | 0.03 | 1.90 | 0.03 | 2.07 | 0.03 | 1.70 | 0.03 | 1.62 | 0.03 | 1.75 | 0.04 | 3.94 | 0.03 | 1.73 | 0.03 | 1.98 |
| t-test | | 0.89 | | 0.40 | | 1.00 | | 0.51 | | 0.38 | | 0.16 | | 0.01 | | 0.37 | |

*%res = %Response

ตารางที่ 20 ผลของ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|------|--------|------|--------|------|--------|------|--------|------|--------|-------|--------|-------|--------|------|--------|
| 1 | 0.78 | 0.80 | 102.56 | 0.79 | 101.28 | 0.81 | 103.85 | 0.78 | 100.00 | 0.75 | 96.15 | 0.73 | 93.59 | 0.67 | 85.90 | 0.81 | 103.85 |
| 2 | 0.81 | 0.81 | 100.00 | 0.80 | 98.77 | 0.81 | 100.00 | 0.82 | 101.23 | 0.82 | 101.23 | 0.81 | 100.00 | 0.81 | 100.00 | 0.82 | 101.23 |
| 3 | 0.78 | 0.73 | 93.59 | 0.78 | 100.00 | 0.80 | 102.56 | 0.80 | 102.56 | 0.81 | 103.85 | 0.84 | 107.69 | 0.84 | 107.69 | 0.84 | 107.69 |
| 4 | 0.80 | 0.78 | 97.50 | 0.78 | 97.50 | 0.77 | 96.25 | 0.77 | 96.25 | 0.78 | 97.50 | 0.75 | 93.75 | 0.75 | 93.75 | 0.79 | 98.75 |
| 5 | 0.79 | 0.79 | 100.00 | 0.79 | 100.00 | 0.80 | 101.27 | 0.80 | 101.27 | 0.78 | 98.73 | 0.75 | 94.94 | 0.71 | 89.87 | 0.80 | 101.27 |
| 6 | 0.55 | 0.55 | 100.00 | 0.58 | 105.45 | 0.58 | 105.45 | 0.56 | 101.82 | 0.57 | 103.64 | 0.57 | 103.64 | 0.51 | 92.73 | 0.58 | 105.45 |
| 7 | 0.60 | 0.64 | 106.67 | 0.63 | 105.00 | 0.65 | 108.33 | 0.64 | 106.67 | 0.67 | 111.67 | 0.62 | 103.33 | 0.64 | 106.67 | 0.66 | 110.00 |
| mean | 0.73 | 0.73 | 100.05 | 0.74 | 101.14 | 0.75 | 102.53 | 0.74 | 101.40 | 0.74 | 101.82 | 0.72 | 99.56 | 0.70 | 96.66 | 0.76 | 104.03 |
| SD | 0.11 | 0.10 | 4.05 | 0.09 | 3.03 | 0.09 | 3.90 | 0.10 | 3.10 | 0.09 | 5.24 | 0.10 | 5.60 | 0.11 | 8.35 | 0.10 | 3.97 |
| SEM | 0.04 | 0.04 | 1.53 | 0.03 | 1.14 | 0.03 | 1.47 | 0.04 | 1.17 | 0.03 | 1.98 | 0.04 | 2.11 | 0.04 | 3.15 | 0.04 | 1.50 |
| t-test | | 0.90 | | 0.46 | | 0.16 | | 0.32 | | 0.47 | | 0.73 | | 0.32 | | 0.03 | |

*%res = %Response

ตารางที่ 21 ผลของ ouabain ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาว (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 285.00 | 302.00 | 106.37 | 315.00 | 110.53 | 309.00 | 108.42 | 294.00 | 103.16 | 281.00 | 98.60 | 259.00 | 90.88 | 252.00 | 88.42 | 315.00 | 110.53 |
| 2 | 246.00 | 240.00 | 97.85 | 241.00 | 97.97 | 241.00 | 97.97 | 241.00 | 97.97 | 241.00 | 97.97 | 246.00 | 100.00 | 247.00 | 100.41 | 247.00 | 100.41 |
| 3 | 256.00 | 254.00 | 99.13 | 253.00 | 98.83 | 252.00 | 98.44 | 250.00 | 97.66 | 247.00 | 96.48 | 246.00 | 96.09 | 247.00 | 96.48 | 257.00 | 100.39 |
| 4 | 301.00 | 339.00 | 113.33 | 351.00 | 116.61 | 350.00 | 116.28 | 340.00 | 112.96 | 330.00 | 109.63 | 268.00 | 89.04 | 252.00 | 83.72 | 352.00 | 116.94 |
| 5 | 311.00 | 347.00 | 113.48 | 361.00 | 116.08 | 360.00 | 115.76 | 356.00 | 114.47 | 349.00 | 112.22 | 303.00 | 97.43 | 293.00 | 94.21 | 363.00 | 116.72 |
| 6 | 332.00 | 329.00 | 98.94 | 335.00 | 100.90 | 329.00 | 99.10 | 322.00 | 96.99 | 324.00 | 97.59 | 300.00 | 90.36 | 295.00 | 88.86 | 335.00 | 100.90 |
| mean | 288.50 | 301.83 | 104.85 | 309.33 | 106.82 | 306.83 | 105.99 | 300.50 | 103.87 | 295.33 | 102.08 | 270.33 | 93.97 | 264.33 | 92.02 | 311.50 | 107.65 |
| SD | 32.95 | 45.32 | 7.29 | 50.87 | 8.63 | 50.05 | 8.67 | 47.40 | 7.95 | 45.60 | 6.93 | 25.56 | 4.47 | 23.10 | 6.11 | 48.96 | 8.09 |
| SEM | 13.45 | 18.50 | 2.97 | 20.76 | 3.52 | 20.43 | 3.54 | 19.35 | 3.25 | 18.61 | 2.83 | 10.43 | 1.82 | 9.43 | 2.50 | 19.99 | 3.30 |
| t-test | | 0.164 | | 0.105 | | 0.146 | | 0.278 | | 0.460 | | 0.024 | | 0.025 | | 0.071 | |

*%res = %Response

ตารางที่ 22 ผลของ capsaicin ร่วมกับ ouabain ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาวโดยให้ capsaicin ก่อน (%Response)

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.47 | 0.46 | 97.87 | 0.44 | 93.62 | 0.42 | 89.36 | 0.42 | 89.36 | 0.45 | 95.74 | 0.44 | 93.62 | 0.44 | 93.62 | 0.48 | 102.13 |
| 2 | 0.53 | 0.56 | 105.66 | 0.54 | 101.89 | 0.56 | 105.66 | 0.54 | 101.89 | 0.55 | 103.77 | 0.52 | 98.11 | 0.51 | 96.23 | 0.56 | 105.66 |
| 3 | 0.36 | 0.40 | 111.11 | 0.41 | 113.89 | 0.41 | 113.89 | 0.43 | 119.44 | 0.45 | 125.00 | 0.42 | 116.67 | 0.41 | 113.89 | 0.43 | 119.44 |
| 4 | 0.47 | 0.47 | 100.00 | 0.40 | 85.11 | 0.38 | 80.85 | 0.40 | 85.11 | 0.38 | 80.85 | 0.46 | 97.87 | 0.47 | 100.00 | 0.50 | 106.38 |
| 5 | 0.36 | 0.35 | 97.22 | 0.31 | 86.11 | 0.30 | 83.33 | 0.28 | 77.78 | 0.29 | 80.56 | 0.31 | 86.11 | 0.28 | 77.78 | 0.37 | 102.78 |
| 6 | 0.26 | 0.26 | 100.00 | 0.27 | 103.85 | 0.27 | 103.85 | 0.27 | 103.85 | 0.27 | 103.85 | 0.28 | 107.69 | 0.27 | 103.85 | 0.29 | 111.54 |
| mean | 0.41 | 0.42 | 101.98 | 0.40 | 97.41 | 0.39 | 96.16 | 0.39 | 96.24 | 0.40 | 98.30 | 0.41 | 100.01 | 0.40 | 97.56 | 0.44 | 107.99 |
| SD | 0.10 | 0.10 | 5.37 | 0.10 | 11.19 | 0.10 | 13.48 | 0.10 | 15.10 | 0.11 | 16.73 | 0.09 | 10.76 | 0.10 | 12.01 | 0.10 | 6.53 |
| SEM | 0.04 | 0.04 | 2.19 | 0.04 | 4.57 | 0.04 | 5.50 | 0.04 | 6.16 | 0.04 | 6.83 | 0.04 | 4.39 | 0.04 | 4.90 | 0.04 | 2.67 |
| t-test | | 0.383 | | 0.497 | | 0.459 | | 0.475 | | 0.723 | | 0.842 | | 0.541 | | 0.020 | |

*%res = %Response

ตารางที่ 23 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาวโดยให้ capsaicin ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|
| 1 | 0.83 | 0.94 | 113.25 | 0.90 | 108.43 | 0.89 | 107.23 | 0.87 | 104.82 | 0.86 | 103.61 | 0.82 | 98.80 | 0.75 | 90.36 | 0.93 | 112.05 |
| 2 | 0.72 | 0.71 | 98.61 | 0.73 | 101.39 | 0.72 | 100.00 | 0.71 | 98.61 | 0.68 | 94.44 | 0.63 | 87.50 | 0.62 | 86.11 | 0.74 | 102.78 |
| 3 | 0.53 | 0.50 | 94.34 | 0.51 | 96.23 | 0.52 | 98.11 | 0.55 | 103.77 | 0.52 | 98.11 | 0.45 | 84.91 | 0.39 | 73.58 | 0.55 | 103.77 |
| 4 | 0.60 | 0.61 | 101.67 | 0.62 | 103.33 | 0.60 | 100.00 | 0.59 | 98.33 | 0.58 | 96.67 | 0.53 | 88.33 | 0.53 | 88.33 | 0.64 | 106.67 |
| 5 | 0.45 | 0.66 | 146.67 | 0.72 | 160.00 | 0.69 | 153.33 | 0.65 | 144.44 | 0.65 | 144.44 | 0.52 | 115.56 | 0.42 | 93.33 | 0.74 | 164.44 |
| 6 | 0.59 | 0.61 | 103.39 | 0.62 | 105.08 | 0.65 | 110.17 | 0.62 | 105.08 | 0.63 | 106.78 | 0.60 | 101.69 | 0.50 | 84.75 | 0.65 | 110.17 |
| mean | 0.62 | 0.67 | 109.65 | 0.68 | 112.41 | 0.68 | 111.47 | 0.67 | 109.18 | 0.65 | 107.34 | 0.59 | 96.13 | 0.54 | 86.08 | 0.71 | 116.65 |
| SD | 0.14 | 0.15 | 19.20 | 0.13 | 23.66 | 0.13 | 21.04 | 0.11 | 17.54 | 0.12 | 18.74 | 0.13 | 11.63 | 0.13 | 6.84 | 0.13 | 23.69 |
| SEM | 0.06 | 0.06 | 7.84 | 0.05 | 9.66 | 0.05 | 8.59 | 0.05 | 7.16 | 0.05 | 7.65 | 0.05 | 4.75 | 0.05 | 2.79 | 0.05 | 9.67 |
| t-test | | 0.224 | | 0.201 | | 0.190 | | 0.220 | | 0.392 | | 0.319 | | 0.002 | | 0.090 | |

*%res = %Response

ตารางที่ 24 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาวโดยให้ capsaicin ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|
| 1 | 307.00 | 301.00 | 98.05 | 304.00 | 99.02 | 305.00 | 99.35 | 304.00 | 99.02 | 301.00 | 98.05 | 272.00 | 88.60 | 259.00 | 84.36 | 309.00 | 100.65 |
| 2 | 292.00 | 287.00 | 98.29 | 289.00 | 98.97 | 292.00 | 100.00 | 290.00 | 99.32 | 284.00 | 97.26 | 278.00 | 95.21 | 280.00 | 95.89 | 294.00 | 100.68 |
| 3 | 291.00 | 285.00 | 97.94 | 291.00 | 100.00 | 297.00 | 102.06 | 302.00 | 103.78 | 304.00 | 104.47 | 280.00 | 96.22 | 262.00 | 90.03 | 304.00 | 104.47 |
| 4 | 302.00 | 307.00 | 101.66 | 325.00 | 107.62 | 325.00 | 107.62 | 320.00 | 105.96 | 314.00 | 103.97 | 283.00 | 93.71 | 272.00 | 90.07 | 327.00 | 108.28 |
| 5 | 271.00 | 272.00 | 100.37 | 369.00 | 136.16 | 268.00 | 98.89 | 272.00 | 100.37 | 266.00 | 98.15 | 262.00 | 96.68 | 263.00 | 97.05 | 273.00 | 100.74 |
| 6 | 314.00 | 324.00 | 103.18 | 327.00 | 104.14 | 322.00 | 102.55 | 311.00 | 99.04 | 302.00 | 96.18 | 258.00 | 82.17 | 254.00 | 80.89 | 327.00 | 104.14 |
| 7 | 245.00 | 235.00 | 95.92 | 231.00 | 94.29 | 229.00 | 93.47 | 231.00 | 94.29 | 228.00 | 93.06 | 229.00 | 93.47 | 230.00 | 93.88 | 244.00 | 99.59 |
| mean | 288.86 | 287.29 | 99.34 | 305.14 | 105.74 | 291.14 | 100.56 | 290.00 | 100.25 | 285.57 | 98.73 | 266.00 | 92.29 | 260.00 | 90.31 | 296.86 | 102.65 |
| SD | 23.77 | 28.57 | 2.51 | 42.64 | 14.06 | 33.47 | 4.30 | 30.24 | 3.75 | 29.88 | 4.12 | 18.77 | 5.21 | 15.78 | 5.96 | 29.96 | 3.11 |
| SEM | 8.97 | 10.78 | 0.95 | 16.09 | 5.31 | 12.63 | 1.62 | 11.41 | 1.42 | 11.27 | 1.56 | 7.08 | 1.97 | 5.95 | 2.25 | 11.31 | 1.17 |
| t-test | | 0.581 | | 0.300 | | 0.632 | | 0.782 | | 0.479 | | 0.012 | | 0.008 | | 0.065 | |

*%res = %Response

ตารางที่ 25 ผลของ capsaicin ร่วมกับ ouabain ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูขาวโดยให้ ouabain ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.48 | 0.46 | 95.83 | 0.47 | 97.92 | 0.46 | 95.83 | 0.46 | 95.83 | 0.43 | 89.58 | 0.45 | 93.75 | 0.46 | 95.83 | 0.48 | 100.00 |
| 2 | 0.62 | 0.68 | 109.68 | 0.67 | 108.06 | 0.65 | 104.84 | 0.64 | 103.23 | 0.63 | 101.61 | 0.60 | 96.77 | 0.60 | 96.77 | 0.69 | 111.29 |
| 3 | 0.49 | 0.49 | 100.00 | 0.50 | 102.04 | 0.48 | 97.96 | 0.45 | 91.84 | 0.45 | 91.84 | 0.45 | 91.84 | 0.48 | 97.96 | 0.50 | 102.04 |
| 4 | 0.49 | 0.48 | 97.96 | 0.45 | 91.84 | 0.43 | 87.76 | 0.42 | 85.71 | 0.44 | 89.80 | 0.48 | 97.96 | 0.48 | 97.96 | 0.49 | 100.00 |
| 5 | 0.44 | 0.43 | 97.73 | 0.40 | 90.91 | 0.41 | 93.18 | 0.40 | 90.91 | 0.37 | 84.09 | 0.38 | 86.36 | 0.36 | 81.82 | 0.43 | 97.73 |
| 6 | 0.64 | 0.61 | 95.31 | 0.61 | 95.31 | 0.59 | 92.19 | 0.60 | 93.75 | 0.61 | 95.31 | 0.69 | 107.81 | 0.67 | 104.69 | 0.71 | 110.94 |
| 7 | 0.59 | 0.58 | 98.31 | 0.60 | 101.69 | 0.60 | 101.69 | 0.57 | 96.61 | 0.62 | 105.08 | 0.55 | 93.22 | 0.57 | 96.61 | 0.61 | 103.39 |
| mean | 0.54 | 0.53 | 99.26 | 0.53 | 98.25 | 0.52 | 96.21 | 0.51 | 93.98 | 0.51 | 93.90 | 0.51 | 95.39 | 0.52 | 95.95 | 0.56 | 103.63 |
| SD | 0.08 | 0.09 | 4.85 | 0.10 | 6.14 | 0.09 | 5.84 | 0.10 | 5.45 | 0.11 | 7.33 | 0.11 | 6.64 | 0.10 | 6.90 | 0.11 | 5.41 |
| SEM | 0.03 | 0.03 | 1.83 | 0.04 | 2.32 | 0.04 | 2.20 | 0.04 | 2.06 | 0.04 | 2.77 | 0.04 | 2.50 | 0.04 | 2.60 | 0.04 | 2.04 |
| t-test | | 0.805 | | 0.588 | | 0.174 | | 0.029 | | 0.079 | | 0.16 | | 0.18 | | 0.121 | |

*%res = %Response

ตารางที่ 26 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูขาวโดยให้ ouabain ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.54 | 0.63 | 116.67 | 0.65 | 120.37 | 0.65 | 120.37 | 0.63 | 116.67 | 0.60 | 111.11 | 0.52 | 96.30 | 0.47 | 87.04 | 0.65 | 120.37 |
| 2 | 0.65 | 0.74 | 113.85 | 0.77 | 118.46 | 0.75 | 115.38 | 0.73 | 112.31 | 0.70 | 107.69 | 0.58 | 89.23 | 0.50 | 76.92 | 0.60 | 92.31 |
| 3 | 0.65 | 0.82 | 126.15 | 0.83 | 127.69 | 0.80 | 123.08 | 0.78 | 120.00 | 0.74 | 113.85 | 0.72 | 110.77 | 0.58 | 89.23 | 0.45 | 69.23 |
| 4 | 0.70 | 1.04 | 148.57 | 1.14 | 162.86 | 1.10 | 157.14 | 1.12 | 160.00 | 1.07 | 152.86 | 0.91 | 130.00 | 0.74 | 105.71 | 1.13 | 161.43 |
| 5 | 0.57 | 0.53 | 92.98 | 0.56 | 98.25 | 0.57 | 100.00 | 0.57 | 100.00 | 0.58 | 101.75 | 0.56 | 98.25 | 0.47 | 82.46 | 0.60 | 105.26 |
| 6 | 0.82 | 0.78 | 95.12 | 0.79 | 96.34 | 0.83 | 101.22 | 0.81 | 98.78 | 0.72 | 87.80 | 0.72 | 87.80 | 0.65 | 79.27 | 0.84 | 102.44 |
| 7 | 0.73 | 0.70 | 95.89 | 0.70 | 95.89 | 0.72 | 98.63 | 0.68 | 93.15 | 0.72 | 98.63 | 0.61 | 83.56 | 0.61 | 83.56 | 0.71 | 97.26 |
| mean | 0.67 | 0.75 | 112.75 | 0.78 | 117.12 | 0.77 | 116.55 | 0.76 | 114.42 | 0.73 | 110.53 | 0.66 | 99.42 | 0.57 | 86.31 | 0.71 | 106.90 |
| SD | 0.10 | 0.16 | 20.27 | 0.18 | 24.00 | 0.17 | 20.56 | 0.18 | 22.45 | 0.16 | 20.60 | 0.13 | 16.15 | 0.10 | 9.54 | 0.22 | 28.58 |
| SEM | 0.04 | 0.06 | 7.65 | 0.07 | 9.05 | 0.06 | 7.76 | 0.07 | 8.47 | 0.06 | 7.77 | 0.05 | 6.10 | 0.04 | 3.60 | 0.08 | 10.79 |
| t-test | | 0.167 | | 0.128 | | 0.091 | | 0.164 | | 0.272 | | 0.899 | | 0.013 | | 0.557 | |

*%res = %Response

ตารางที่ 27 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูขาวโดยให้ ouabain ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 189.00 | 189.00 | 100.00 | 187.00 | 98.94 | 187.00 | 98.94 | 185.00 | 97.88 | 187.00 | 98.94 | 180.00 | 95.24 | 178.00 | 94.18 |
| 2 | 169.00 | 171.00 | 101.18 | 169.00 | 100.00 | 169.00 | 100.00 | 169.00 | 100.00 | 170.00 | 100.59 | 167.00 | 98.82 | 169.00 | 100.00 |
| 3 | 182.00 | 180.00 | 98.90 | 178.00 | 97.80 | 177.00 | 97.25 | 177.00 | 97.25 | 176.00 | 96.70 | 173.00 | 95.05 | 169.00 | 92.86 |
| 4 | 198.00 | 194.00 | 97.98 | 188.00 | 94.95 | 200.00 | 101.01 | 198.00 | 100.00 | 195.00 | 98.48 | 192.00 | 96.97 | 189.00 | 95.45 |
| 5 | 226.00 | 223.00 | 98.67 | 224.00 | 99.12 | 217.00 | 96.02 | 217.00 | 96.02 | 215.00 | 95.13 | 202.00 | 89.38 | 192.00 | 84.96 |
| 6 | 239.00 | 228.00 | 95.40 | 231.00 | 96.65 | 231.00 | 96.65 | 232.00 | 97.07 | 225.00 | 94.14 | 246.00 | 102.93 | 276.00 | 115.48 |
| 7 | 230.00 | 220.00 | 95.65 | 220.00 | 95.65 | 215.00 | 93.48 | 220.00 | 95.65 | 207.00 | 90.00 | 186.00 | 80.87 | 184.00 | 80.00 |
| mean | 204.71 | 200.71 | 98.26 | 199.57 | 97.59 | 199.43 | 97.62 | 199.71 | 97.70 | 196.43 | 96.29 | 192.29 | 94.18 | 193.86 | 94.70 |
| SD | 26.93 | 22.76 | 2.13 | 24.81 | 1.90 | 22.85 | 2.57 | 23.91 | 1.74 | 20.33 | 3.56 | 26.40 | 7.16 | 37.32 | 11.37 |
| SEM | 10.16 | 8.59 | 0.80 | 9.36 | 0.72 | 8.62 | 0.97 | 9.02 | 0.66 | 7.67 | 1.34 | 9.96 | 2.70 | 14.08 | 4.29 |
| t-test | | 0.073 | | 0.017 | | 0.055 | | 0.016 | | 0.039 | | 0.097 | | 0.319 | |

%res = %Response

ตารางที่ 28 อัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูตะเภาในภาวะปกติ (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.41 | 0.40 | 97.56 | 0.43 | 104.88 | 0.43 | 104.88 | 0.43 | 104.88 | 0.44 | 107.32 | 0.44 | 107.32 | 0.45 | 109.76 |
| 2 | 0.49 | 0.51 | 104.08 | 0.49 | 100.00 | 0.50 | 102.04 | 0.50 | 102.04 | 0.50 | 102.04 | 0.49 | 100.00 | 0.48 | 97.96 |
| 3 | 0.51 | 0.50 | 98.04 | 0.51 | 100.00 | 0.51 | 100.00 | 0.53 | 103.92 | 0.52 | 101.96 | 0.53 | 103.92 | 0.53 | 103.92 |
| 4 | 0.58 | 0.57 | 98.28 | 0.58 | 100.00 | 0.61 | 105.17 | 0.59 | 101.72 | 0.61 | 105.17 | 0.60 | 103.45 | 0.61 | 105.17 |
| 5 | 0.82 | 0.81 | 98.78 | 0.87 | 106.10 | 0.86 | 104.88 | 0.85 | 103.66 | 0.88 | 107.32 | 0.93 | 113.41 | 0.92 | 112.20 |
| 6 | 0.90 | 1.10 | 122.22 | 0.91 | 101.11 | 0.87 | 96.67 | 0.84 | 93.33 | 0.81 | 90.00 | 0.93 | 103.33 | 0.70 | 77.78 |
| 7 | 0.53 | 0.51 | 96.23 | 0.54 | 101.89 | 0.54 | 101.89 | 0.53 | 100.00 | 0.55 | 103.77 | 0.47 | 88.68 | 0.49 | 92.45 |
| mean | 0.61 | 0.63 | 102.17 | 0.62 | 102.00 | 0.62 | 102.22 | 0.61 | 101.37 | 0.62 | 102.51 | 0.63 | 102.87 | 0.60 | 99.89 |
| SD | 0.18 | 0.24 | 9.18 | 0.19 | 2.51 | 0.18 | 3.13 | 0.17 | 3.90 | 0.17 | 5.94 | 0.21 | 7.55 | 0.17 | 11.84 |
| SEM | 0.07 | 0.09 | 3.47 | 0.07 | 0.95 | 0.07 | 1.18 | 0.06 | 1.47 | 0.06 | 2.24 | 0.08 | 2.85 | 0.06 | 4.47 |
| t-test | | 0.474 | | 0.108 | | 0.231 | | 0.718 | | 0.596 | | 0.301 | | 0.819 | |

%res = %Response

ตารางที่ 29 แรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูตะเภาในภาวะปกติ (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.99 | 0.99 | 100.00 | 1.00 | 101.01 | 1.00 | 101.01 | 0.99 | 100.00 | 0.99 | 100.00 | 0.98 | 98.99 | 0.98 | 98.99 |
| 2 | 1.03 | 1.04 | 100.97 | 1.07 | 103.88 | 1.07 | 103.88 | 1.05 | 101.94 | 1.10 | 106.80 | 1.16 | 112.62 | 1.42 | 137.86 |
| 3 | 1.11 | 1.10 | 99.10 | 1.09 | 98.20 | 1.08 | 97.30 | 1.08 | 97.30 | 1.10 | 99.10 | 1.07 | 96.40 | 1.12 | 100.90 |
| 4 | 0.66 | 0.73 | 110.61 | 0.70 | 106.06 | 0.73 | 110.61 | 0.73 | 110.61 | 0.74 | 112.12 | 0.80 | 121.21 | 0.80 | 121.21 |
| 5 | 1.81 | 1.75 | 96.69 | 1.71 | 94.48 | 1.72 | 95.03 | 1.70 | 93.92 | 1.67 | 92.27 | 1.60 | 88.40 | 1.54 | 85.08 |
| 6 | 1.97 | 1.84 | 93.40 | 2.00 | 101.52 | 2.02 | 102.54 | 2.01 | 102.03 | 1.95 | 98.98 | 1.62 | 82.23 | 1.61 | 81.73 |
| 7 | 1.40 | 0.16 | 11.36 | 1.35 | 96.43 | 1.38 | 98.57 | 1.40 | 100.00 | 1.35 | 96.43 | 1.28 | 91.43 | 1.20 | 85.71 |
| mean | 1.28 | 1.09 | 87.45 | 1.27 | 100.23 | 1.29 | 101.28 | 1.28 | 100.83 | 1.27 | 100.81 | 1.22 | 98.75 | 1.24 | 101.64 |
| SD | 0.47 | 0.58 | 33.97 | 0.45 | 4.11 | 0.45 | 5.13 | 0.45 | 5.16 | 0.42 | 6.62 | 0.31 | 13.76 | 0.30 | 20.93 |
| SEM | 0.18 | 0.22 | 12.82 | 0.17 | 1.55 | 0.17 | 1.93 | 0.17 | 1.95 | 0.16 | 2.50 | 0.12 | 5.19 | 0.11 | 7.90 |
| t-test | | 0.312 | | 0.733 | | 0.844 | | 0.950 | | 0.734 | | 0.365 | | 0.677 | |

%res = %Response

ตารางที่ 30 แรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหลอดเลือดในภาวะปกติ (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 185.00 | 202.00 | 109.19 | 198.00 | 107.03 | 185.00 | 100.00 | 178.00 | 96.22 | 173.00 | 93.51 | 159.00 | 85.95 | 155.00 | 83.78 | 204.00 | 110.27 |
| 2 | 204.00 | 220.00 | 107.84 | 251.00 | 123.04 | 245.00 | 120.10 | 238.00 | 116.67 | 230.00 | 112.75 | 217.00 | 106.37 | 215.00 | 105.39 | 251.00 | 123.04 |
| 3 | 209.00 | 285.00 | 136.36 | 274.00 | 131.10 | 254.00 | 121.53 | 237.00 | 113.40 | 223.00 | 106.70 | 196.00 | 93.78 | 188.00 | 89.95 | 285.00 | 136.36 |
| 4 | 210.00 | 260.00 | 123.81 | 271.00 | 129.05 | 272.00 | 129.52 | 265.00 | 126.19 | 256.00 | 121.90 | 228.00 | 108.57 | 213.00 | 101.43 | 273.00 | 130.00 |
| 5 | 187.00 | 294.00 | 157.22 | 290.00 | 155.08 | 274.00 | 146.52 | 251.00 | 134.22 | 234.00 | 125.13 | 193.00 | 103.21 | 172.00 | 91.98 | 297.00 | 158.82 |
| mean | 199.00 | 252.20 | 126.88 | 256.80 | 129.06 | 246.00 | 123.54 | 233.80 | 117.34 | 223.20 | 112.00 | 198.60 | 99.58 | 188.60 | 94.51 | 262.00 | 131.70 |
| SD | 12.10 | 40.13 | 20.59 | 35.67 | 17.34 | 36.21 | 16.84 | 33.21 | 14.37 | 30.65 | 12.66 | 26.50 | 9.48 | 25.97 | 8.78 | 36.61 | 17.99 |
| SEM | 5.40 | 17.91 | 9.19 | 15.93 | 7.74 | 16.17 | 7.52 | 14.82 | 6.41 | 13.69 | 5.65 | 11.83 | 4.23 | 11.59 | 3.92 | 16.34 | 8.03 |
| t-test | | 0.038 | | 0.016 | | 0.030 | | 0.048 | | 0.092 | | 0.964 | | 0.243 | | 0.014 | |

* %res = %Response

ตารางที่ 31 ผลของ capsaicin ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|
| 1 | 0.96 | 1.24 | 129.17 | 1.30 | 135.42 | 1.17 | 121.88 | 0.95 | 98.96 | 0.81 | 84.38 | 0.55 | 57.29 | 0.49 | 51.04 | 1.32 | 137.50 |
| 2 | 0.64 | 1.02 | 159.38 | 1.24 | 193.75 | 1.06 | 165.63 | 0.81 | 126.56 | 0.65 | 101.56 | 0.48 | 75.00 | 0.58 | 90.63 | 1.25 | 195.31 |
| 3 | 0.67 | 1.50 | 223.88 | 1.46 | 217.91 | 1.16 | 173.13 | 0.98 | 146.27 | 0.84 | 125.37 | 0.63 | 94.03 | 0.56 | 83.58 | 1.57 | 234.33 |
| 4 | 0.88 | 1.75 | 198.86 | 1.68 | 190.91 | 1.32 | 150.00 | 1.17 | 132.95 | 1.04 | 118.18 | 0.88 | 100.00 | 0.86 | 97.73 | 1.83 | 207.95 |
| 5 | 0.59 | 1.04 | 176.27 | 0.91 | 154.24 | 0.81 | 137.29 | 0.73 | 123.73 | 0.66 | 111.86 | 0.45 | 76.27 | 0.36 | 61.02 | 1.11 | 188.14 |
| mean | 0.75 | 1.31 | 177.51 | 1.32 | 178.44 | 1.10 | 149.58 | 0.93 | 125.69 | 0.80 | 108.27 | 0.60 | 80.52 | 0.57 | 76.80 | 1.42 | 192.65 |
| SD | 0.16 | 0.31 | 36.31 | 0.28 | 33.11 | 0.19 | 20.80 | 0.17 | 17.29 | 0.16 | 15.97 | 0.17 | 16.96 | 0.18 | 19.92 | 0.29 | 35.50 |
| SEM | 0.07 | 0.14 | 16.21 | 0.13 | 14.78 | 0.08 | 9.29 | 0.08 | 7.72 | 0.07 | 7.13 | 0.08 | 7.57 | 0.08 | 8.89 | 0.13 | 15.85 |
| t-test | | 0.010 | | 0.005 | | 0.004 | | 0.036 | | 0.424 | | 0.104 | | 0.209 | | 0.004 | |

*%res = %Response

ตารางที่ 32 ผลของ capsaicin ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|-------|-------|-------|-------|--------|
| 1 | 1.44 | 2.30 | 159.72 | 2.11 | 146.53 | 1.79 | 124.31 | 1.40 | 97.22 | 1.19 | 82.64 | 0.85 | 59.03 | 0.89 | 61.81 | 2.31 | 160.42 |
| 2 | 1.02 | 1.57 | 153.92 | 1.38 | 135.29 | 1.21 | 118.63 | 1.12 | 109.80 | 1.04 | 101.96 | 0.78 | 76.47 | 0.76 | 74.51 | 1.57 | 153.92 |
| 3 | 0.98 | 1.92 | 195.92 | 1.79 | 182.65 | 1.49 | 152.04 | 1.25 | 127.55 | 1.11 | 113.27 | 0.80 | 81.63 | 0.87 | 88.78 | 1.95 | 198.98 |
| 4 | 1.32 | 1.56 | 118.18 | 1.63 | 123.48 | 1.48 | 112.12 | 1.28 | 96.97 | 1.23 | 93.18 | 1.17 | 88.64 | 1.01 | 76.52 | 1.65 | 125.00 |
| 5 | 0.70 | 1.50 | 214.29 | 1.35 | 192.86 | 1.20 | 171.43 | 1.03 | 147.14 | 0.83 | 118.57 | 0.42 | 60.00 | 0.34 | 48.57 | 1.56 | 222.86 |
| mean | 1.09 | 1.77 | 168.41 | 1.65 | 156.16 | 1.43 | 135.70 | 1.22 | 115.74 | 1.08 | 101.92 | 0.80 | 73.15 | 0.77 | 70.04 | 1.81 | 172.23 |
| SD | 0.29 | 0.34 | 37.65 | 0.31 | 30.18 | 0.24 | 25.10 | 0.14 | 21.54 | 0.16 | 14.61 | 0.27 | 13.18 | 0.26 | 15.34 | 0.32 | 38.68 |
| SEM | 0.13 | 0.15 | 16.81 | 0.14 | 13.48 | 0.11 | 11.21 | 0.06 | 9.62 | 0.07 | 6.52 | 0.12 | 5.89 | 0.12 | 6.85 | 0.14 | 17.27 |
| t-test | | 0.006 | | 0.004 | | 0.010 | | 0.182 | | 0.876 | | 0.022 | | 0.011 | | 0.004 | |

* %res = %Response

ตารางที่ 33 ผลของ capsaicin ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 209.00 | 203.00 | 97.13 | 256.00 | 122.49 | 275.00 | 131.58 | 280.00 | 133.97 | 282.00 | 134.93 | 264.00 | 126.32 | 286.00 | 136.84 | 286.00 | 136.84 |
| 2 | 183.00 | 214.00 | 116.94 | 227.00 | 124.04 | 239.00 | 130.60 | 248.00 | 135.52 | 258.00 | 140.98 | 280.00 | 153.01 | 283.00 | 154.64 | 292.00 | 159.56 |
| 3 | 202.00 | 219.00 | 108.42 | 214.00 | 105.94 | 215.00 | 106.44 | 213.00 | 105.45 | 211.00 | 104.46 | 266.00 | 131.68 | 290.00 | 143.56 | 290.00 | 143.56 |
| 4 | 169.00 | 169.00 | 100.00 | 170.00 | 100.59 | 172.00 | 101.78 | 173.00 | 102.37 | 175.00 | 103.55 | 185.00 | 109.47 | 195.00 | 115.38 | 196.00 | 115.98 |
| 5 | 169.00 | 171.00 | 101.18 | 170.00 | 100.59 | 171.00 | 101.18 | 177.00 | 104.73 | 180.00 | 106.51 | 193.00 | 114.20 | 204.00 | 120.71 | 204.00 | 120.71 |
| mean | 186.40 | 201.25 | 105.62 | 216.75 | 113.27 | 225.25 | 117.60 | 228.50 | 119.33 | 231.50 | 120.98 | 248.75 | 130.12 | 263.50 | 137.61 | 266.00 | 138.99 |
| SD | 18.51 | 22.51 | 8.94 | 35.77 | 11.77 | 43.22 | 15.70 | 46.02 | 17.86 | 47.84 | 19.76 | 43.09 | 17.96 | 45.76 | 16.53 | 46.73 | 18.06 |
| SEM | 9.26 | 11.26 | 4.47 | 17.89 | 5.88 | 21.61 | 7.85 | 23.01 | 8.93 | 23.92 | 9.88 | 21.55 | 8.98 | 22.88 | 8.27 | 23.37 | 9.03 |
| t-test | | 0.260 | | 0.109 | | 0.110 | | 0.099 | | 0.096 | | 0.025 | | 0.011 | | 0.013 | |

* %res = %Response

ตารางที่ 34 ผลของ ouabain ต่ออัตราการเต้นของหัวใจห้องบนขวาที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
| 1 | 0.48 | 1.05 | 218.75 | 1.55 | 322.92 | 1.48 | 308.33 | 1.48 | 308.33 | 1.43 | 297.92 | 1.42 | 295.83 | 1.16 | 241.67 | 1.55 | 322.92 |
| 2 | 0.87 | 1.56 | 179.31 | 1.42 | 163.22 | 1.45 | 166.67 | 1.37 | 157.47 | 1.39 | 159.77 | 1.30 | 149.43 | 0.99 | 113.79 | 1.54 | 177.01 |
| 3 | 0.71 | 0.87 | 122.54 | 0.99 | 139.44 | 1.06 | 149.30 | 1.16 | 163.38 | 1.21 | 170.42 | 1.34 | 188.73 | 1.05 | 147.89 | 1.30 | 183.10 |
| 4 | 0.92 | 1.00 | 108.70 | 1.15 | 125.00 | 1.32 | 143.48 | 1.50 | 163.04 | 1.65 | 179.35 | 1.96 | 213.04 | 2.04 | 221.74 | 1.99 | 216.30 |
| 5 | 0.56 | 0.62 | 110.71 | 0.72 | 128.57 | 0.83 | 148.21 | 0.94 | 167.86 | 1.03 | 183.93 | 1.24 | 221.43 | 1.44 | 257.14 | 1.44 | 257.14 |
| mean | 0.71 | 1.02 | 148.00 | 1.17 | 175.83 | 1.23 | 183.20 | 1.29 | 192.02 | 1.34 | 198.28 | 1.45 | 213.69 | 1.34 | 196.45 | 1.56 | 231.29 |
| SD | 0.19 | 0.34 | 48.91 | 0.33 | 83.57 | 0.28 | 70.50 | 0.24 | 65.13 | 0.23 | 56.46 | 0.29 | 53.76 | 0.43 | 62.37 | 0.26 | 60.33 |
| SEM | 0.09 | 0.15 | 21.84 | 0.15 | 37.31 | 0.12 | 31.47 | 0.11 | 29.07 | 0.10 | 25.21 | 0.13 | 24.00 | 0.19 | 27.84 | 0.12 | 26.93 |
| t-test | | 0.078 | | 0.051 | | 0.016 | | 0.006 | | 0.002 | | 0.002 | | 0.025 | | 0.001 | |

* %res = %Response

ตารางที่ 35 ผลของ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|-------|--------|
| 1 | 0.85 | 0.90 | 105.88 | 1.19 | 140.00 | 1.50 | 176.47 | 1.67 | 196.47 | 1.80 | 211.76 | 1.93 | 227.06 | A | | 1.93 | 227.06 |
| 2 | 0.78 | 1.32 | 169.23 | 1.41 | 180.77 | 1.49 | 191.03 | 1.58 | 202.56 | 1.64 | 210.26 | 1.46 | 187.18 | A | | 1.63 | 208.97 |
| 3 | 1.10 | 1.40 | 127.27 | 1.69 | 153.64 | 1.81 | 164.55 | 2.00 | 181.82 | 2.07 | 188.18 | 2.12 | 192.73 | A | | 2.21 | 200.91 |
| 4 | 1.42 | 1.58 | 111.27 | 1.80 | 126.76 | 1.96 | 138.03 | 2.07 | 145.77 | 2.13 | 150.00 | 2.84 | 200.00 | A | | 2.84 | 200.00 |
| 5 | 0.96 | 1.18 | 122.92 | 1.35 | 140.63 | 1.54 | 160.42 | 1.71 | 178.13 | 1.84 | 191.67 | 1.52 | 158.33 | A | | 2.13 | 221.88 |
| mean | 1.02 | 1.28 | 127.31 | 1.49 | 148.36 | 1.66 | 166.10 | 1.81 | 180.95 | 1.90 | 190.37 | 1.97 | 193.06 | A | | 2.15 | 211.76 |
| SD | 0.25 | 0.26 | 24.97 | 0.25 | 20.46 | 0.21 | 19.70 | 0.22 | 22.10 | 0.20 | 24.95 | 0.56 | 24.72 | | | 0.45 | 12.25 |
| SEM | 0.11 | 0.11 | 11.15 | 0.11 | 9.13 | 0.10 | 8.79 | 0.10 | 9.87 | 0.09 | 11.14 | 0.25 | 11.04 | | | 0.20 | 5.47 |
| t-test | | 0.037 | | 0.001 | | 0.000 | | 0.000 | | 0.000 | | 0.003 | | | | 0.000 | |

*%res = %Response A = Cardiac Arrhythmias

ตารางที่ 36 ผลของ ouabain ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูตะเภา (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 173.00 | 273.00 | 157.80 | 268.00 | 154.91 | 251.00 | 145.09 | 233.00 | 134.68 | 218.00 | 126.01 | 191.00 | 110.40 | 197.00 | 113.87 | 273.00 | 157.80 |
| 2 | 189.00 | 223.00 | 117.99 | 232.00 | 122.75 | 225.00 | 119.05 | 219.00 | 115.87 | 206.00 | 108.99 | 180.00 | 95.24 | 173.00 | 91.53 | 232.00 | 122.75 |
| 3 | 278.00 | 309.00 | 111.15 | 306.00 | 110.07 | 298.00 | 107.19 | 288.00 | 103.60 | 279.00 | 100.36 | 243.00 | 87.41 | 241.00 | 86.69 | 310.00 | 111.51 |
| 4 | 209.00 | 300.00 | 143.54 | 300.00 | 143.54 | 289.00 | 138.28 | 278.00 | 133.01 | 266.00 | 127.27 | 238.00 | 113.88 | 235.00 | 112.44 | 303.00 | 144.98 |
| 5 | 194.00 | 289.00 | 148.97 | 294.00 | 151.55 | 284.00 | 146.39 | 272.00 | 140.21 | 258.00 | 132.99 | 228.00 | 117.53 | 243.00 | 125.26 | 297.00 | 153.09 |
| 6 | 212.00 | 254.00 | 119.81 | 264.00 | 124.53 | 255.00 | 120.28 | 243.00 | 114.62 | 233.00 | 109.91 | 204.00 | 96.23 | 190.00 | 89.62 | 264.00 | 124.53 |
| 7 | 170.00 | 245.00 | 144.12 | 248.00 | 145.88 | 237.00 | 139.41 | 225.00 | 132.35 | 215.00 | 126.47 | 193.00 | 113.53 | 184.00 | 108.24 | 252.00 | 148.24 |
| mean | 203.57 | 270.43 | 134.77 | 273.14 | 136.18 | 262.71 | 130.81 | 251.14 | 124.91 | 239.29 | 118.86 | 211.00 | 104.89 | 209.00 | 103.95 | 275.86 | 137.56 |
| SD | 36.53 | 31.30 | 18.07 | 27.90 | 17.00 | 27.90 | 15.18 | 27.77 | 13.49 | 28.38 | 12.24 | 25.09 | 11.68 | 29.67 | 14.72 | 28.84 | 17.74 |
| SEM | 13.78 | 11.81 | 6.82 | 10.53 | 6.41 | 10.53 | 5.73 | 10.48 | 5.09 | 10.71 | 4.62 | 9.47 | 4.41 | 11.20 | 5.56 | 10.88 | 6.69 |
| t-test | | 0.001 | | 0.001 | | 0.001 | | 0.002 | | 0.006 | | 0.466 | | 0.659 | | 0.001 | |

* %res = %Response

ตารางที่ 37 ผลของ capsaicin ร่วมกับ ouabain ต่ออัตราการเต้นของหัวใจของหนูขาวที่แยกจากหนูตะเภาโดยให้ capsaicin ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 1.07 | 1.87 | 174.77 | 1.52 | 142.06 | 1.43 | 133.64 | 1.41 | 131.78 | 1.45 | 135.51 | 1.70 | 158.88 | 1.89 | 176.64 | 2.20 | 205.61 |
| 2 | 0.88 | 1.64 | 186.36 | 1.49 | 169.32 | 1.38 | 156.82 | 1.12 | 127.27 | 1.24 | 140.91 | 0.97 | 110.23 | 1.01 | 114.77 | 1.65 | 187.50 |
| 3 | 0.72 | 1.22 | 169.44 | 1.06 | 147.22 | 1.02 | 141.67 | 1.00 | 138.89 | 1.03 | 143.06 | 1.32 | 183.33 | 1.43 | 198.61 | 1.43 | 198.61 |
| 4 | 0.63 | 1.28 | 203.17 | 1.03 | 163.49 | 1.00 | 158.73 | 1.06 | 168.25 | 1.11 | 176.19 | 1.52 | 241.27 | 1.33 | 211.11 | 1.22 | 193.65 |
| 5 | 0.51 | 1.51 | 296.08 | 1.31 | 256.86 | 1.22 | 239.22 | 1.17 | 229.41 | 1.14 | 223.53 | 1.44 | 282.35 | 1.47 | 288.24 | 1.52 | 298.04 |
| 6 | 0.61 | 1.23 | 201.64 | 1.12 | 183.61 | 1.02 | 167.21 | 1.04 | 170.49 | 1.09 | 178.69 | 1.40 | 229.51 | 1.58 | 259.02 | 2.22 | 363.93 |
| 7 | 0.33 | 1.09 | 330.30 | 0.95 | 287.88 | 0.79 | 239.39 | 0.80 | 242.42 | 0.82 | 248.48 | 0.99 | 300.00 | 1.11 | 336.36 | 1.10 | 333.33 |
| mean | 0.68 | 1.41 | 223.11 | 1.21 | 192.92 | 1.12 | 176.67 | 1.09 | 172.65 | 1.13 | 178.05 | 1.33 | 215.08 | 1.40 | 226.39 | 1.62 | 254.38 |
| SD | 0.24 | 0.28 | 63.56 | 0.23 | 56.70 | 0.23 | 44.21 | 0.18 | 46.52 | 0.19 | 43.68 | 0.27 | 68.06 | 0.29 | 74.07 | 0.44 | 75.05 |
| SEM | 0.09 | 0.10 | 23.99 | 0.09 | 21.40 | 0.09 | 16.68 | 0.07 | 17.55 | 0.07 | 16.48 | 0.10 | 25.68 | 0.11 | 27.95 | 0.17 | 28.32 |
| t-test | | 0.0000 | | 0.0001 | | 0.0001 | | 0.0003 | | 0.0000 | | 0.0008 | | 0.0005 | | 0.0004 | |

* %res = %Response

ตารางที่ 38 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกจากหนูตะเภาโดยให้ capsaicin ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|-------|--------|
| 1 | 1.04 | 2.91 | 279.81 | 2.76 | 265.38 | 2.58 | 248.08 | 2.51 | 241.35 | 2.49 | 239.42 | 2.52 | 242.31 | A | | 2.91 | 279.81 |
| 2 | 1.79 | 2.28 | 127.37 | 2.25 | 125.70 | 2.11 | 117.88 | 2.03 | 113.41 | 1.92 | 107.26 | 1.86 | 103.91 | A | | 2.28 | 127.37 |
| 3 | 1.06 | 1.03 | 97.17 | 1.22 | 115.09 | 1.42 | 133.96 | 1.52 | 143.40 | 1.62 | 152.83 | 1.77 | 166.98 | A | | 1.79 | 168.87 |
| 4 | 1.12 | 2.19 | 195.54 | 2.08 | 185.71 | 2.00 | 178.57 | 1.99 | 177.68 | 2.02 | 180.36 | 2.10 | 187.50 | A | | 1.73 | 154.46 |
| 5 | 0.45 | 1.35 | 300.00 | 1.22 | 271.11 | 1.11 | 246.67 | 1.12 | 248.89 | 1.19 | 264.44 | 1.28 | 284.44 | A | | 1.33 | 295.56 |
| 6 | 1.08 | 1.54 | 142.59 | 1.78 | 164.81 | 1.84 | 170.37 | 1.90 | 175.93 | 2.03 | 187.96 | 2.25 | 208.33 | A | | 2.28 | 211.11 |
| 7 | 0.47 | 0.60 | 127.66 | 0.83 | 176.60 | 1.01 | 214.89 | 1.14 | 242.55 | 1.26 | 268.09 | 1.53 | 325.53 | A | | 1.61 | 342.55 |
| mean | 1.00 | 1.70 | 181.45 | 1.73 | 186.34 | 1.72 | 187.20 | 1.74 | 191.89 | 1.79 | 200.05 | 1.90 | 217.00 | A | | 1.99 | 225.68 |
| SD | 0.45 | 0.80 | 79.96 | 0.68 | 61.57 | 0.57 | 51.65 | 0.51 | 53.59 | 0.46 | 60.14 | 0.43 | 74.39 | - | | 0.53 | 81.29 |
| SEM | 0.17 | 0.30 | 30.17 | 0.26 | 23.23 | 0.22 | 19.49 | 0.19 | 20.22 | 0.17 | 22.69 | 0.16 | 28.07 | - | | 0.20 | 30.68 |
| t-test | | 0.029 | | 0.009 | | 0.004 | | 0.002 | | 0.002 | | 0.002 | | - | | 0.001 | |

* %res = %Response

A = Cardiac Arrhythmias

ตารางที่ 39 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนซ้ายที่แยกจากหนูตะเภาโดยให้ capsaicin ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 228.00 | 252.00 | 110.53 | 257.00 | 112.72 | 253.00 | 110.96 | 245.00 | 107.46 | 238.00 | 104.39 | 223.00 | 97.81 | 214.00 | 93.86 | 258.00 | 113.16 |
| 2 | 213.00 | 212.00 | 99.53 | 224.00 | 105.16 | 228.00 | 107.04 | 225.00 | 105.63 | 221.00 | 103.76 | 207.00 | 97.18 | 207.00 | 97.18 | 289.00 | 135.68 |
| 3 | 245.00 | 248.00 | 101.22 | 258.00 | 105.31 | 263.00 | 107.35 | 260.00 | 106.12 | 256.00 | 104.49 | 245.00 | 100.00 | 226.00 | 92.24 | 263.00 | 107.35 |
| 4 | 188.00 | 280.00 | 148.94 | 286.00 | 152.13 | 282.00 | 150.00 | 273.00 | 145.21 | 263.00 | 139.89 | 228.00 | 121.28 | 216.00 | 114.89 | 288.00 | 153.19 |
| 5 | 211.00 | 267.00 | 126.54 | 288.00 | 136.49 | 288.00 | 136.49 | 283.00 | 134.12 | 276.00 | 130.81 | 251.00 | 118.96 | 270.00 | 127.96 | 288.00 | 136.49 |
| 6 | 242.00 | 245.00 | 101.24 | 247.00 | 102.07 | 235.00 | 97.11 | 230.00 | 95.04 | 231.00 | 95.45 | 281.00 | 116.12 | 275.00 | 113.64 | 290.00 | 119.83 |
| 7 | 168.00 | 269.00 | 160.12 | 289.00 | 172.02 | 282.00 | 167.86 | 270.00 | 160.71 | 257.00 | 152.98 | 231.00 | 137.50 | 257.00 | 152.98 | 289.00 | 172.02 |
| mean | 213.57 | 253.29 | 121.16 | 264.14 | 126.56 | 261.57 | 125.26 | 255.14 | 122.04 | 248.86 | 118.82 | 238.00 | 112.69 | 237.86 | 113.25 | 280.71 | 133.96 |
| SD | 28.11 | 22.18 | 24.81 | 24.69 | 27.45 | 23.95 | 26.47 | 22.30 | 24.64 | 19.44 | 22.14 | 23.81 | 15.07 | 28.63 | 21.88 | 13.90 | 22.98 |
| SEM | 10.61 | 8.37 | 9.36 | 9.32 | 10.36 | 9.04 | 9.99 | 8.41 | 9.30 | 7.33 | 8.35 | 8.99 | 5.69 | 10.80 | 8.26 | 5.25 | 8.67 |
| t-test | | 0.052 | | 0.030 | | 0.034 | | 0.046 | | 0.057 | | 0.058 | | 0.162 | | 0.003 | |

* %res = %Response

ตารางที่ 40 ผลของ capsaicin ร่วมกับ ouabain ต่ออัตราการเต้นของหัวใจของบรณาที่แยกจากหนูตะเภาโดยให้ ouabain ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|-------|------|--------|--------|
| 1 | 1.44 | 2.01 | 139.58 | 1.97 | 136.81 | 1.88 | 130.56 | 1.81 | 125.69 | 1.80 | 125.00 | A | | A | | 2.26 | 156.94 |
| 2 | 0.78 | 1.00 | 128.21 | 1.18 | 151.28 | 1.40 | 179.49 | 1.50 | 192.31 | 1.50 | 192.31 | A | | A | | 1.66 | 212.82 |
| 3 | 1.25 | 1.41 | 112.80 | 1.64 | 131.20 | 1.77 | 141.60 | 1.86 | 148.80 | 1.94 | 155.20 | A | | A | | 2.26 | 180.80 |
| 4 | 1.53 | 1.64 | 107.19 | 1.69 | 110.46 | 1.63 | 106.54 | 1.57 | 102.61 | 1.59 | 103.92 | A | | A | | 1.71 | 111.76 |
| 5 | 1.58 | 2.26 | 143.04 | 1.94 | 122.78 | 1.80 | 113.92 | 1.72 | 108.86 | 1.72 | 108.86 | A | | A | | 2.26 | 143.04 |
| 6 | 1.15 | 1.37 | 119.13 | 1.59 | 138.26 | 1.80 | 156.52 | 1.90 | 165.22 | 1.92 | 166.96 | A | | A | | 1.94 | 168.70 |
| 7 | 0.67 | 1.56 | 232.84 | 1.46 | 217.91 | 1.44 | 214.93 | 1.49 | 222.39 | 1.50 | 223.88 | A | | A | | 1.56 | 232.84 |
| mean | 1.20 | 1.61 | 140.40 | 1.64 | 144.10 | 1.67 | 149.08 | 1.69 | 152.27 | 1.71 | 153.73 | A | | A | | 1.95 | 172.41 |
| SD | 0.36 | 0.42 | 42.85 | 0.27 | 34.97 | 0.19 | 38.21 | 0.17 | 44.26 | 0.19 | 44.55 | | | | | 0.31 | 41.13 |
| SEM | 0.14 | 0.16 | 16.17 | 0.10 | 13.20 | 0.07 | 14.42 | 0.07 | 16.70 | 0.07 | 16.81 | | | | | 0.12 | 15.52 |
| t-test | | 0.012 | | 0.001 | | 0.002 | | 0.006 | | 0.005 | | | | | | 0.0003 | |

* res = Response

A = Cardiac Arrhythmias

ตารางที่ 42 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจของบนซ้ายที่แยกจากหนูตะเภา โดยให้ ouabain ก่อน (%Response)

| No | control | 1min | %res | 2min | %res | 3min | %res | 4min | %res | 5min | %res | 10min | %res | 15min | %res | max | %res |
|--------|---------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|--------|--------|
| 1 | 0.66 | 1.08 | 163.64 | 1.02 | 154.55 | 0.93 | 140.91 | 0.85 | 128.79 | 0.82 | 124.24 | 0.86 | 130.30 | 0.90 | 136.36 | 1.73 | 262.12 |
| 2 | 0.44 | 0.49 | 111.36 | 0.59 | 134.09 | 0.70 | 159.09 | 0.76 | 172.73 | 0.79 | 179.55 | 0.99 | 225.00 | 1.11 | 252.27 | 1.40 | 318.18 |
| 3 | 0.57 | 0.62 | 108.77 | 0.69 | 121.05 | 0.74 | 129.82 | 0.77 | 135.09 | 0.77 | 135.09 | 0.89 | 156.14 | 1.02 | 178.95 | 0.93 | 163.16 |
| 4 | 0.62 | 1.70 | 274.19 | 1.44 | 232.26 | 1.15 | 185.48 | 1.17 | 188.71 | 1.28 | 206.45 | 1.44 | 232.26 | 1.41 | 227.42 | 1.72 | 277.42 |
| 5 | 0.78 | 1.73 | 221.79 | 1.50 | 192.31 | 1.34 | 171.79 | 1.29 | 165.38 | 1.32 | 169.23 | 1.43 | 183.33 | 1.21 | 155.13 | 1.74 | 223.08 |
| 6 | 0.74 | 0.75 | 101.35 | 0.88 | 118.92 | 1.25 | 168.92 | 1.23 | 166.22 | 1.28 | 172.97 | 1.20 | 162.16 | 0.84 | 113.51 | 1.30 | 175.68 |
| 7 | 0.51 | 1.64 | 321.57 | 1.39 | 272.55 | 1.22 | 239.22 | 1.18 | 231.37 | 1.22 | 239.22 | 1.71 | 335.29 | 1.56 | 305.88 | 1.72 | 337.25 |
| mean | 0.62 | 1.14 | 186.10 | 1.07 | 175.10 | 1.05 | 170.75 | 1.04 | 169.76 | 1.07 | 175.25 | 1.22 | 203.50 | 1.15 | 195.65 | 1.51 | 250.98 |
| SD | 0.12 | 0.54 | 88.17 | 0.37 | 59.50 | 0.26 | 35.61 | 0.23 | 34.34 | 0.26 | 39.45 | 0.32 | 68.77 | 0.26 | 68.98 | 0.31 | 67.01 |
| SEM | 0.05 | 0.20 | 33.27 | 0.14 | 22.45 | 0.10 | 13.44 | 0.09 | 12.96 | 0.10 | 14.89 | 0.12 | 25.95 | 0.10 | 26.03 | 0.12 | 25.29 |
| t-test | | 0.035 | | 0.012 | | 0.001 | | 0.001 | | 0.002 | | 0.003 | | 0.005 | | 0.0003 | |

* %res = %Response

ตารางที่ 41 ผลของ capsaicin ร่วมกับ ouabain ต่อแรงบีบตัวของหัวใจห้องบนขวาที่แยกได้จากหนูตะเภา โดยให้ ouabain ก่อน (%Response)

| ก่อนให้ capsaicin | | | | | |
|-------------------|------|--------|-----------|--------|-----------|
| No | pre | post | %response | frist | %response |
| 1 | 0.71 | 0.91 | 128.17 | 1.38 | 194.37 |
| 2 | 0.62 | 0.93 | 150.00 | 1.18 | 190.32 |
| 3 | 0.85 | 1.18 | 138.82 | 1.58 | 185.88 |
| 4 | 0.66 | 1.01 | 153.03 | 1.38 | 209.09 |
| 5 | 0.69 | 0.80 | 115.94 | 1.09 | 157.97 |
| 6 | 0.61 | 1.22 | 200.00 | 1.43 | 234.43 |
| mean | 0.69 | 1.01 | 147.66 | 1.34 | 195.34 |
| SD | 0.09 | 0.16 | 29.11 | 0.18 | 25.41 |
| SEM | 0.04 | 0.07 | 11.88 | 0.07 | 10.37 |
| t-test | | 0.0055 | | 0.0001 | |

| หลังให้ capsaicin | | | | | |
|-------------------|------|--------|-----------|--------|-----------|
| No | pre | post | %response | frist | %response |
| 1 | 0.71 | 1.17 | 164.79 | 1.89 | 266.20 |
| 2 | 0.47 | 0.89 | 189.36 | 1.27 | 270.21 |
| 3 | 0.61 | 1.03 | 168.85 | 1.48 | 242.62 |
| 4 | 0.53 | 0.90 | 169.81 | 1.34 | 252.83 |
| 5 | 0.57 | 0.66 | 115.79 | 0.82 | 143.86 |
| 6 | 0.43 | 1.03 | 239.53 | 1.05 | 244.19 |
| mean | 0.55 | 0.95 | 174.69 | 1.31 | 236.65 |
| SD | 0.10 | 0.17 | 40.11 | 0.37 | 46.83 |
| SEM | 0.04 | 0.07 | 16.37 | 0.15 | 19.11 |
| t-test | | 0.0022 | | 0.0001 | |

*pre = ก่อนหยุดกระตุ้น

*frist = แรงบีบตัวครั้งแรกหลังกระตุ้น

*post = หลังหยุดกระตุ้น

ตารางที่ 43 ผลของ capsaicin ต่อแรงบีบตัวครั้งแรกของหัวใจห้องบนซ้ายหลังจากหยุดกระตุ้นด้วยไฟฟ้า 5 นาที ที่แยกจากหนูขาว

| ก่อนให้ Caffeine | | | | | |
|------------------|------|--------|-----------|--------|-----------|
| No | pre | post | %response | frist | %response |
| 1 | 0.68 | 1.14 | 167.65 | 1.54 | 226.47 |
| 2 | 0.69 | 1.16 | 168.12 | 1.44 | 208.70 |
| 3 | 0.86 | 1.13 | 131.40 | 1.61 | 187.21 |
| 4 | 0.51 | 0.99 | 194.12 | 1.18 | 231.37 |
| 5 | 0.63 | 0.86 | 136.51 | 1.02 | 161.90 |
| 6 | 0.94 | 1.30 | 138.30 | 1.60 | 170.21 |
| mean | 0.72 | 1.10 | 156.01 | 1.40 | 197.64 |
| SD | 0.16 | 0.15 | 24.63 | 0.24 | 29.08 |
| SEM | 0.06 | 0.06 | 10.05 | 0.10 | 11.87 |
| t-test | | 0.0004 | | 0.0001 | |

| หลังให้ caffeine | | | | | |
|------------------|------|--------|-----------|--------|-----------|
| No | pre | post | %response | frist | %response |
| 1 | 0.57 | 0.89 | 156.14 | 0.98 | 171.93 |
| 2 | 0.67 | 0.99 | 147.76 | 1.14 | 170.15 |
| 3 | 0.95 | 1.37 | 144.21 | 1.49 | 156.84 |
| 4 | 0.52 | 0.83 | 159.62 | 0.98 | 188.46 |
| 5 | 0.60 | 0.83 | 138.33 | 0.98 | 163.33 |
| 6 | 0.80 | 1.24 | 155.00 | 1.66 | 207.50 |
| mean | 0.69 | 1.03 | 150.18 | 1.21 | 178.37 |
| SD | 0.16 | 0.23 | 8.12 | 0.30 | 18.57 |
| SEM | 0.07 | 0.09 | 3.31 | 0.12 | 7.58 |
| t-test | | 0.0001 | | 0.0008 | |

*pre = ก่อนหยุดกระตุ้น

*frist = แรงบีบตัวครั้งแรกหลังกระตุ้น

*post = หลังหยุดกระตุ้น

ตารางที่ 44 ผลของ caffeine ต่อแรงบีบตัวครั้งแรกของหัวใจห้องบนซ้ายหลังจากหยุดกระตุ้นด้วยไฟฟ้า 5 นาที ที่แยกจากหนูขาว

ประวัติผู้เขียน

นางสาวประภาศรี ชังชมแก้ว เกิดเมื่อวันที่ 7 ธันวาคม พ.ศ. 2511 ที่จังหวัด
สระแก้ว สำเร็จมัธยมศึกษาที่โรงเรียนสระแก้ว อำเภอเมือง จังหวัดสระแก้ว เข้าศึกษาที่
วิทยาลัยสหประชาชาติไทย สำเร็จการศึกษาปริญญาตรีพยาบาลศาสตรบัณฑิต เมื่อปีการ
ศึกษา 2534 เข้ารับตำแหน่งพยาบาลประจำการที่โรงพยาบาลจุฬาลงกรณ์ สหประชา
ชาติไทย แผนกไอซียูกุมาร และเข้าศึกษาต่อในหลักสูตรเภสัชวิทยา สหสาขาวิชาเภสัชวิทยา
คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ในปีการศึกษา 2538



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