Supplemental material

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group 1. AV concentration (µg/mL) in serum followed for 12 days. | | | | | |
| **t (hours)** | **sheep "a"** | **sheep "b"** | **sheep "c"** | **sheep "d"** |
| 0.1 | 60.9 | 68.3 | 81.0 | 79.5 |
| 0.2 | 54.9 | 61.4 | 98.3 | 98.3 |
| 0.3 | 58.9 | 60.7 | 108.2 | 93.6 |
| 0.3 | 57.0 | 63.3 | 87.6 | 88.3 |
| 0.4 | 64.4 | 61.0 | 91.9 | 77.5 |
| 0.5 | 62.7 | 60.6 | 93.8 | 66.9 |
| 0.7 | 66.5 | 53.5 | 105.1 | 21.4 |
| 0.8 | 63.4 | 55.2 | 108.6 | 35.4 |
| 1 | 60.3 | 52.2 | 73.2 | 36.5 |
| 1.5 | 88.6 | 53.4 | 54.3 | 66.3 |
| 2 | 88.9 | 52.9 | 70.7 | 65.5 |
| 2.5 | 85.0 | 48.6 | 72.4 | 58.1 |
| 3 | 75.3 | 50.1 | 83.5 | 46.3 |
| 3.5 | 45.4 | 44.8 | 68.7 | 55.0 |
| 4 | 66.8 | 45.6 | 68.9 | 52.1 |
| 6 | 76.9 | 43.2 | 65.4 | 58.8 |
| 8 | 63.9 | 41.3 | 63.8 | 55.9 |
| 10 | 56.9 | 40.1 | 64.1 | 29.8 |
| 12 | 37.5 | 39.7 | 47.7 | 24.5 |
| 24 | 34.1 | 38.3 | 50.3 | 24.7 |
| 48 | 22.7 | 28.9 | 32.0 | 15.4 |
| 72 | 18.5 | 27.4 | 26.4 | 9.8 |
| 96 | 16.6 | 16.7 | 26.0 | 9.1 |
| 120 | 15.2 | 14.7 | 11.2 | 6.9 |
| 144 | 24.6 | 18.3 | 14.3 | 5.5 |
| 168 | 17.0 | 5.6 | 12.0 | 4.5 |
| 192 | 13.7 | 2.0 | 9.3 |  |
| 216 | 12.8 | 1.5 | 6.9 |  |
| 240 | 7.9 | 1.0 | 4.2 |  |
| 264 | 0.0 | 0.6 | 1.6 |  |
| 288 | 0.0 | 0.4 | 1.5 |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group 2. Venom (ng/ml) and AV (µg/ml) concentrations in serum (Data of figure 1a) | | | | | | | | |
| **t(min)** | **Venom in serum (ng/ml)** | | | | **AV in serum (µg/ml)** | | | |
|  | **Sheep “a”** | **Sheep “b”** | **Sheep “c”** | **Sheep “d”** | **Sheep “a”** | **Sheep “b”** | **Sheep “c”** | **Sheep “d”** |
| 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| **5 mg of *Micrurus fulvius* venom injected SC** | | | | | | | | |
| 2 | 5.2 | 12.0 | 1.3 | 3.9 | - | - | - | - |
| 5 | 26.2 | 39.9 | 12.8 | 3.9 | - | - | - | - |
| 7 | 40.7 | 52.9 | 23.6 | 9.7 | - | - | - | - |
| 10 | 50.3 | 59.6 | 42.8 | 29.8 | - | - | - | - |
| 15 | 58.4 | 71.7 | 67.8 | 41.8 | - | - | - | - |
| 20 | 61.4 | 78.9 | 78.5 | 60.7 | - | - | - | - |
| 25 | 44.8 | 88.3 | 92.8 | 76.3 | - | - | - | - |
| 30 | 74.5 | 87.4 | 98.5 | 92.9 | - | - | - | - |
| 35 | 88.9 | 83.8 | 120.7 | 97.8 | - | - | - | - |
| 40 | 89.8 | 91.4 | 130.8 | 112.7 | - | - | - | - |
| 45 | 114.6 | 100.2 | 144.4 | 112.0 | - | - | - | - |
| 50 | 140.4 | 127.4 | 134.4 | 128.7 | - | - | - | - |
| 55 | 173.8 | 170.0 | 117.0 | 140.2 | - | - | - | - |
| 60 | 207.0 | 171.4 | 111.8 | 147.5 | - | - | - | - |
| 75 | 231.2 | 181.0 | 138.0 | 160.2 | - | - | - | - |
| 90 | 252.4 | 203.4 | 138.0 | 139.6 | - | - | - | - |
| 105 | 282.8 | 219.0 | 165.0 | 147.7 | - | - | - | - |
| 120 | 293.3 | 238.0 | 185.1 | 161.7 | - | - | - | - |
| **AV injected IV after two hours of envenomation** | | | | | | | | |
| 140 | 0.0 | 0.0 | 0.0 | 0.0 | 379.0 | 311.6 | 294.4 | 347.7 |
| 160 | 0.7 | 10.1 | 0.0 | 2.5 | 397.1 | 278.9 | 284.5 | 245.2 |
| 180 | 1.9 | 23.8 | 1.6 | 10.2 | 376.0 | 240.6 | 280.9 | 228.0 |
| 200 | 5.1 | 32.4 | 2.5 | 10.4 | 392.0 | 246.7 | 294.0 | 245.0 |
| 220 | 6.3 | 23.5 | 2.8 | 14.1 | 395.2 | 298.7 | 222.2 | 255.8 |
| 240 | 10.8 | 41.3 | 3.3 | 16.2 | 309.5 | 263.9 | 217.0 | 280.1 |
| 260 | 11.1 | 32.3 | 4.2 | 21.0 | 317.5 | 251.6 | 225.2 | 344.8 |
| 280 | 13.1 | 53.8 | 7.5 | 28.3 | 315.2 | 247.8 | 205.1 | 221.7 |
| 300 | 20.3 | 42.2 | 9.3 | 25.5 | 318.3 | 245.8 | 220.4 | 362.6 |
| 320 | 23.9 | 35.5 | 6.3 | 21.5 | 325.9 | 212.4 | 171.6 | 285.0 |
| 340 | 22.1 | 22.9 | 6.2 | 30.4 | 256.0 | 221.7 | 158.3 | 284.4 |
| 360 | 11.5 | 22.8 | 10.0 |  | 256.7 | 193.6 | 170.5 | 286.6 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group 3. Venom (ng/ml) and AV (µg/ml) concentrations in serum (data of figure 1c) | | | | | | | | |
|  | **Venom in serum (ng/ml)** | | | | **AV in serum (µg/ml)** | | | |
| **t(min)** | **Sheep “d”** | **Sheep “e”** | **Sheep “g”** | **Sheep “h”** | **Sheep “d”** | **Sheep “e”** | **Sheep “g”** | **Sheep “h”** |
| 0 | 0 | 0 | 0 | 0 | - | - | - | - |
| **5 mg of *Micrurus fulvius* venom injected SC** | | | | | | | | |
| 2 | 7.5 | - | 6.9 | 8.0 | - | - | - | - |
| 5 | 16.4 | 9.0 | 29.9 | 21.5 | - | - | - | - |
| 7 | 30.5 | 72.0 | 40.0 | 32.5 | - | - | - | - |
| 10 | 47.5 | - | 43.8 | 47.8 | - | - | - | - |
| 15 | 78.5 | 93.7 | 54.4 | 56.2 | - | - | - | - |
| 20 | 106.4 | 174.0 | 64.0 | 70.2 | - | - | - | - |
| 25 | 115.6 | 263.3 | 80.5 | 74.2 | - | - | - | - |
| 30 | 116.5 | 258.9 | 84.0 | 80.8 | - | - | - | - |
| 35 | 125.0 | 266.4 | 86.5 | 87.9 | - | - | - | - |
| 40 | 124.5 | 299.9 | 80.9 | 89.2 | - | - | - | - |
| 45 | 127.6 | 301.8 | 80.3 | 99.8 | - | - | - | - |
| 50 | 121.0 | 279.5 | 81.7 | 104.1 | - | - | - | - |
| 55 | 140.5 | 274.3 | 93.5 | 109.5 | - | - | - | - |
| 60 | 131.8 | 227.0 | 89.2 | 114.0 | - | - | - | - |
| 75 | 132.8 | 242.8 | 124.4 | - | - | - | - | - |
| 90 | 149.5 | 191.8 | 127.4 | 120.0 | - | - | - | - |
| 105 | 147.9 | 203.2 | 138.4 | 146.2 | - | - | - | - |
| 120 | 173.8 | 175.1 | 144.5 | 123.2 | 0 | 0 | 0 | 0 |
| **AV administered IV after two hours of envenomation** | | | | | | | | |
| 122 | 0 | 0.8 | 0 | 0 | 129.0 |  | 488.2 | 332.1 |
| 125 | 0 | 0.9 | 0 | 0 | 149.8 | 290.7 | 438.6 | 386.8 |
| 127 | 0 | 6.6 | 0 | 0 | 155.7 | 400.3 | 465.6 | 315.1 |
| 130 | 0 | 1.6 | 0 | 0 | 209.0 | 278.1 | 313.7 | 346.2 |
| 135 | 0 | 1.3 | 0 | 0 | 173.3 | 314.5 | 530.7 | 265.2 |
| 140 | 0 | 1.8 | 0 | 0 | 154.1 | 268.4 | 634.0 | 361.8 |
| 145 | 0 | 5.0 | 0 | 0 | 148.5 | 210.0 | 552.2 | 297.1 |
| 150 | 0 | 1.2 | 0 | 0 | 144.3 | 258.6 | 631.7 | 269.4 |
| 155 | 0 | 3.8 | 0 | 0 | 159.0 | 267.7 | 540.6 | 265.2 |
| 160 | 0 | 2.9 | 0 | 0 | 189.2 | 216.6 | 569.3 | 279.0 |
| 165 | 0 | 2.4 | 0 | 0 | 144.8 | 224.3 | 372.5 | 302.8 |
| 170 | 0 | 2.6 | 0 | 0 | 155.5 | 261.6 | 411.5 | 336.5 |
| 175 | 1.3 | 2.6 | 0 | 0 | 152.8 | 221.6 | 422.8 | 351.8 |
| 180 | 2.2 | 3.6 | 0 | 0 | 184.8 | 253.9 | 379.6 | 288.1 |
| 195 | 1.9 | 4.0 | 0 | 0 | 160.3 | 278.7 | 487.1 | 334.6 |
| 210 | 4.5 | 3.8 | 0 | 0 | 171.6 | 191.5 | 484.8 | 313.3 |
| 225 | 5.6 | 3.6 | 0 | 0 | 158.3 | 255.2 | 460.1 | 375.5 |
| 240 | 6.0 | 4.2 | 0 | 0 | 135.2 | 234.2 | 565.3 | 316.8 |
| 260 | 8.3 | 4.8 | 0 | 0 | 129.9 | 297.5 | 342.8 | 274.9 |
| 280 | 9.6 | 5.8 | 0 | 0 | 161.6 | 239.1 | 537.8 | 199.2 |
| 300 | 14.3 | 10.8 | 1.0 | 0 | 156.8 | 159.2 | 379.9 | 193.5 |
| 320 | 12.8 | 7.3 | 2.2 | 0 | 155.9 | 201.8 | 405.2 | 139.0 |
| 340 | 12.7 | 10.6 | 3.1 | 0 | 157.3 | 187.0 | 380.3 | 174.2 |
| 360 | 13.6 | 10.8 | 4.0 | 0 | 152.5 | 198.7 | 357.5 | 148.0 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group 3. Venom and AV in lymph samples from sheep "d" | | | | | | | | |
| t (min) | lymph volume (ml) | venom [ng/ml] | venom per sample (ng) | cumulative venom (µg) | AV [µg/ml] | AV per sample (µg) | cumulative AV (mg) |
| 0 | 0 | 0 | 0 | 0 | - | - | - |
| 5 mg of *Micrurus fulvius* venom injected SC | | | | | | | | |
| 4 | 4 | 0 | 0 | 0 | - | - | - |
| 30 | 2 | 499 | 999 | 1 | - | - | - |
| 41 | 2 | 360 | 721 | 2 | - | - | - |
| 45 | 3 | 1095 | 3284 | 5 | - | - | - |
| 51 | 0.5 | 199 | 100 | 5 | - | - | - |
| 58 | 15 | 353 | 5289 | 10 | - | - | - |
| 60 | 15 | 284 | 4264 | 15 | - | - | - |
| 63 | 15 | 597 | 8951 | 24 | - | - | - |
| 66 | 15 | 1184 | 17759 | 41 | - | - | - |
| 69 | 15 | 889 | 13328 | 55 | - | - | - |
| 72 | 15 | 985 | 14774 | 69 | - |  | - |
| 76 | 15 | 1743 | 26144 | 96 | - | - | - |
| 79 | 15 | 1116 | 16747 | 112 | - | - | - |
| 82 | 15 | 1291 | 19364 | 132 | - | - | - |
| 85 | 15 | 1263 | 18946 | 151 | - | - | - |
| 87 | 15 | 1735 | 26025 | 177 | - | - | - |
| 90 | 15 | 1156 | 17338 | 194 | - | - | - |
| 92 | 15 | 562 | 8436 | 202 | - | - | - |
| 95 | 15 | 594 | 8903 | 211 | - | - | - |
| 97 | 15 | 1199 | 17987 | 229 | - | - | - |
| 100 | 15 | 810 | 12148 | 242 | - | - | - |
| 103 | 15 | 1439 | 21588 | 263 | - | - | - |
| 106 | 15 | 729 | 10940 | 274 | - | - | - |
| 110 | 15 | 847 | 12704 | 287 | - | - | - |
| 112 | 15 | 953 | 14288 | 301 | - | - | - |
| 115 | 15 | 1070 | 16054 | 317 | - | - | - |
| 118 | 15 | 836 | 12534 | 330 | - | - | - |
| 120 | 15 | 889 | 13335 | 343 | 0 | 0 | 0 |
| **AV administered IV after two hours of envenomation** | | | | | | | | |
| 124 | 15 | 869 | 13030 | 356 | 0 | 0 | 0 |
| 127 | 15 | 1035 | 15519 | 371 | 0.8 | 12 | 0.01 |
| 130 | 15 | 528 | 7924 | 379 | 12.5 | 187 | 0.20 |
| 133 | 15 | 238 | 3574 | 383 | 28.7 | 430 | 0.63 |
| 137 | 15 | 275 | 4122 | 387 | 45.5 | 682 | 1.3 |
| 141 | 15 | 120 | 1805 | 389 | 53.6 | 804 | 2.1 |
| 145 | 15 | 168 | 2513 | 391 | 54.2 | 812 | 2.9 |
| 149 | 15 | 286 | 4292 | 396 | 54.1 | 812 | 3.7 |
| 153 | 15 | 103 | 1540 | 397 | 70.7 | 1061 | 4.8 |
| 157 | 15 | 175 | 2627 | 400 | 56.6 | 849 | 5.7 |
| 162 | 15 | 152 | 2283 | 402 | 47.0 | 705 | 6.4 |
| 167 | 15 | 180 | 2696 | 405 | 50.7 | 760 | 7.1 |
| 171 | 15 | 235 | 3523 | 408 | 48.8 | 732 | 7.8 |
| 175 | 15 | 141 | 2119 | 411 | 44.6 | 669 | 8.5 |
| 179 | 15 | 125 | 1870 | 412 | 53.0 | 796 | 9.3 |
| 183 | 15 | 111 | 1666 | 414 | 56.2 | 843 | 10 |
| 186 | 15 | 99 | 1490 | 416 | 61.5 | 922 | 11 |
| 190 | 15 | 159 | 2380 | 418 | 67.8 | 1018 | 12 |
| 193 | 15 | 118 | 1773 | 420 | 78.9 | 1183 | 13 |
| 196 | 15 | 122 | 1837 | 422 | 84.3 | 1265 | 15 |
| 198 | 15 | 98 | 1467 | 423 | 70.6 | 1058 | 16 |
| 200 | 15 | 55 | 819 | 424 | 57.7 | 866 | 16 |
| 203 | 15 | 54 | 807 | 425 | 70.4 | 1056 | 18 |
| 206 | 15 | 48 | 722 | 425 | 76.9 | 1153 | 19 |
| 209 | 15 | 58 | 870 | 426 | 95.6 | 1434 | 20 |
| 212 | 15 | 64 | 953 | 427 | 79.7 | 1195 | 21 |
| 215 | 15 | 92 | 1379 | 429 | 82.6 | 1240 | 23 |
| 218 | 15 | 102 | 1533 | 430 | 85.4 | 1281 | 24 |
| 223 | 15 | 84 | 1265 | 431 | 84.3 | 1265 | 25 |
| 227 | 15 | 80 | 1200 | 433 | 106.6 | 1599 | 27 |
| 231 | 15 | 74 | 1107 | 434 | 96.4 | 1446 | 28 |
| 235 | 15 | 66 | 995 | 435 | 81.8 | 1227 | 29 |
| 239 | 15 | 70 | 1056 | 436 | 72.3 | 1084 | 30 |
| 244 | 15 | 58 | 864 | 437 | 84.4 | 1266 | 32 |
| 249 | 15 | 91 | 1364 | 438 | 92.2 | 1382 | 33 |
| 254 | 15 | 77 | 1154 | 439 | 99.2 | 1487 | 35 |
| 265 | 15 | 99 | 1486 | 441 | 109.4 | 1641 | 36 |
| 271 | 15 | 93 | 1402 | 442 | 116.1 | 1741 | 38 |
| 277 | 15 | 85 | 1282 | 443 | 113.5 | 1703 | 40 |
| 283 | 15 | 97 | 1461 | 445 | 130.7 | 1960 | 42 |
| 289 | 15 | 108 | 1620 | 446 | 118.4 | 1776 | 43 |
| 292 | 15 | 98 | 1477 | 448 | 90.2 | 1354 | 45 |
| 296 | 15 | 83 | 1249 | 449 | 104.2 | 1563 | 46 |
| 300 | 15 | 78 | 1168 | 450 | 97.1 | 1456 | 48 |
| 305 | 15 | 72 | 1082 | 451 | 110.1 | 1651 | 49 |
| 309 | 15 | 72 | 1084 | 452 | 105.7 | 1586 | 51 |
| 313 | 15 | 70 | 1050 | 453 | 105.8 | 1587 | 53 |
| 317 | 15 | 94 | 1408 | 455 | 99.8 | 1497 | 54 |
| 320 | 15 | 90 | 1348 | 456 | 85.9 | 1289 | 55 |
| 323 | 15 | 83 | 1242 | 457 | 85.5 | 1282 | 57 |
| 326 | 15 | 64 | 957 | 458 | 76.9 | 1153 | 58 |
| 328 | 15 | 54 | 808 | 459 | 76.1 | 1142 | 59 |
| 331 | 15 | 84 | 1253 | 460 | 73.3 | 1099 | 60 |
| 335 | 15 | 91 | 1369 | 462 | 69.1 | 1037 | 61 |
| 338 | 15 | 62 | 929 | 463 | 67.8 | 1017 | 62 |
| 341 | 15 | 88 | 1324 | 464 | 72.3 | 1085 | 63 |
| 343 | 15 | 80 | 1201 | 465 | 64.3 | 964 | 64 |
| 346 | 15 | 60 | 899 | 466 | 68.3 | 1025 | 65 |
| 349 | 15 | 48 | 714 | 467 | 60.0 | 900 | 66 |
| 351 | 15 | 45 | 670 | 468 | 51.8 | 778 | 67 |
| 354 | 15 | 54 | 816 | 468 | 52.4 | 786 | 68 |
| 358 | 15 | 74 | 1104 | 469 | 58.3 | 874 | 69 |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Group 3. Venom and AV in lymph samples from sheep "e" | | | | | | | |
| t (min) | lymph volume (ml) | venom [ng/ml] | venom per sample (ng) | cumulative venom (µg) | AV [µg/ml] | AV per sample (µg) | cumulative AV (mg) |
| 0 |  | 0 | 0 |  |  |  |  |
| ***5 mg of Micrurus fulvius venom injected SC*** | | | | | | | |
| 8.5 | 15 | 0 | 0 | 0 |  |  |  |
| 19.5 | 15 | 3 | 42 | 0.04 |  |  |  |
| 28 | 15 | 7 | 104 | 0.15 |  |  |  |
| 38 | 15 | 22 | 328 | 0.47 |  |  |  |
| 47 | 15 | 63 | 941 | 1.4 |  |  |  |
| 56 | 15 | 104 | 1562 | 3.0 |  |  |  |
| 66 | 15 | 131 | 1964 | 4.9 |  |  |  |
| 79 | 15 | 289 | 4329 | 9.3 |  |  |  |
| 94 | 15 | 522 | 7831 | 17 |  |  |  |
| 109 | 15 | 902 | 13536 | 31 |  |  |  |
| 119 | 15 | 795 | 11932 | 43 |  |  |  |
| 120 | 15 | 788 | 11821 | 54 | 0 |  |  |
| **AV administered IV after two hours of envenomation** | | | | | | | |
| 130 | 15 | 581 | 8719 | 63 | 0 |  |  |
| 143 | 15 | 572 | 8576 | 72 | 0.5 | 7 | 0.007 |
| 152 | 15 | 197 | 2957 | 75 | 4 | 61 | 0.068 |
| 162 | 15 | 94 | 1407 | 76 | 9 | 139 | 0.21 |
| 173 | 15 | 215 | 3221 | 79 | 10 | 144 | 0.35 |
| 178 | 6 | 263 | 1576 | 81 | 12 | 73 | 0.42 |
| 183 | 6 | 374 | 2245 | 83 | 13 | 79 | 0.50 |
| 190 | 6 | 277 | 1662 | 85 | 14 | 84 | 0.59 |
| 195 | 6 | 165 | 988 | 86 |  | 0 | 0.59 |
| 208 | 6 | 144 | 862 | 87 | 13 | 79 | 0.67 |
| 229 | 6 | 469 | 2817 | 89 | 14 | 87 | 0.75 |
| 250 | 9 | 292 | 2630 | 92 | 16 | 148 | 0.90 |
| 259 | 6 | 257 | 1541 | 94 | 16 | 93 | 0.99 |
| 265 | 4.5 | 158 | 712 | 94 | 14 | 64 | 1.1 |
| 270 | 3.5 | 82 | 289 | 95 | 14 | 50 | 1.1 |
| 275 | 3.5 | 55 | 191 | 95 | 19 | 66 | 1.2 |
| 280 | 3 | 37 | 112 | 95 | 22 | 66 | 1.2 |
| 285 | 2 | 10 | 20 | 95 | 23 | 45 | 1.3 |
| 290 | 4.5 | 358 | 1610 | 97 | 21 | 95 | 1.4 |
| 295 | 3 | 293 | 879 | 97 | 20 | 61 | 1.4 |
| 300 | 3.5 | 372 | 1301 | 99 | 22 | 76 | 1.5 |
| 305 | 3.8 | 304 | 1157 | 100 | 23 | 86 | 1.6 |
| 310 | 1.8 |  |  | 100 |  | 0 | 1.6 |
| 315 | 2.5 |  |  | 100 |  | 0 | 1.6 |
| 320 | 2.8 | 155 | 434 | 100 | 21 | 59 | 1.7 |
| 325 | 2 | 109 | 219 | 101 | 23 | 46 | 1.7 |
| 330 | 2.2 | 114 | 252 | 101 | 20 | 43 | 1.8 |
| 335 | 3 | 61 | 183 | 101 | 22 | 67 | 1.8 |
| 340 | 2.5 | 53 | 132 | 101 | 24 | 61 | 1.9 |
| 345 | 2.7 | 15 | 40 | 101 | 20 | 54 | 1.9 |
| 350 | 2 | 19 | 38 | 101 | 21 | 43 | 2.0 |
| 355 | 2.5 | 24 | 60 | 101 | 22 | 54 | 2.0 |
| 360 | 2 | 22 | 44 | 101 | 25 | 51 | 2.1 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Group 3. Venom and AV in lymph samples from sheep "g" | | | | | | | | |
| **t (min)** | **lymph volumen (ml)** | **venom [ng/ml]** | **venom per sample (ng)** | **cumulative venom (µg)** | **AV [µg/ml]** | **AV per sample (µg)** | **cumulative AV (mg)** |
| 0 | 0 | 0 |  |  |  |  |  |
| **5 mg of Micrurus fulvius venom injected SC** | | | | | | | |
| 9 | 15 | 0 |  |  |  |  |  |
| 17 | 15 | 0 |  |  |  |  |  |
| 26 | 15 | 128 | 1916 | 1.9 |  |  |  |
| 34 | 15 | 979 | 14686 | 17 |  |  |  |
| 42 | 15 | 848 | 12723 | 29 |  |  |  |
| 50 | 15 | 447 | 6712 | 36 |  |  |  |
| 55 | 9 | 1154 | 10387 | 46 |  |  |  |
| 60 | 9 | 1934 | 17404 | 64 |  |  |  |
| 65 | 9.5 | 674 | 6401 | 70 |  |  |  |
| 70 | 8.5 | 1946 | 16540 | 87 |  |  |  |
| 75 | 9 | 589 | 5297 | 92 |  |  |  |
| 80 | 8.5 | 949 | 8068 | 100 |  |  |  |
| 85 | 8.5 | 2395 | 20354 | 120 |  |  |  |
| 90 | 9 | 1688 | 15195 | 136 |  |  |  |
| 95 | 9.5 | 2058 | 19555 | 155 |  |  |  |
| 100 | 9.5 | 3984 | 37845 | 193 |  |  |  |
| 105 | 9.2 | 3312 | 30466 | 224 |  |  |  |
| 110 | 10 | 454 | 4544 | 228 |  |  |  |
| 115 | 9 | 381 | 3433 | 232 |  |  |  |
| 120 | 9 | 947 | 8519 | 240 | 0 |  |  |
| **AV administered IV after two hours of envenomation** | | | | | | | | |
| 125 | 9 | 921 | 8291 | 248 | 0.4 | 4 | 0.004 |
| 130 | 9 | 1434 | 12910 | 261 | 19 | 167 | 0.17 |
| 135 | 8.5 | 954 | 8112 | 269 | 50 | 423 | 0.59 |
| 140 | 9 | 887 | 7983 | 277 | 67 | 603 | 1.2 |
| 145 | 8.5 | 1236 | 10510 | 288 | 58 | 490 | 1.7 |
| 150 | 8.5 | 969 | 8239 | 296 | 53 | 453 | 2.1 |
| 155 | 8 | 1014 | 8113 | 304 | 57 | 456 | 2.6 |
| 160 | 7.5 | 1626 | 12195 | 316 | 58 | 435 | 3.0 |
| 165 | 8 | 2016 | 16125 | 333 | 62 | 497 | 3.5 |
| 170 | 7.5 | 1308 | 9810 | 342 | 66 | 496 | 4.0 |
| 175 | 7.5 | 1837 | 13781 | 356 | 63 | 474 | 4.5 |
| 180 | 7.5 | 1150 | 8626 | 365 | 72 | 540 | 5.0 |
| 185 | 7.5 | 857 | 6425 | 371 | 71 | 530 | 5.6 |
| 190 | 7.5 | 1248 | 9359 | 381 | 64 | 482 | 6.1 |
| 195 | 8.5 | 922 | 7839 | 388 | 56 | 474 | 6.5 |
| 200 | 7.5 | 700 | 5252 | 394 | 48 | 362 | 6.9 |
| 205 | 7.5 | 996 | 7469 | 401 | 52 | 390 | 7.3 |
| 210 | 10 | 347 | 3465 | 405 | 50 | 497 | 7.8 |
| 215 | 7 | 330 | 2308 | 407 | 47 | 326 | 8.1 |
| 220 | 8 | 301 | 2412 | 409 | 51 | 410 | 8.5 |
| 225 | 8 | 263 | 2105 | 411 | 49 | 395 | 8.9 |
| 230 | 7.5 | 212 | 1590 | 413 | 51 | 382 | 9.3 |
| 235 | 8 | 487 | 3894 | 417 | 54 | 432 | 9.7 |
| 240 | 7.5 | 319 | 2389 | 419 | 57 | 428 | 10 |
| 245 | 7 | 307 | 2148 | 421 | 60 | 419 | 11 |
| 250 | 7.5 | 201 | 1508 | 423 | 52 | 388 | 11 |
| 255 | 7.5 | 209 | 1569 | 424 | 53 | 398 | 11 |
| 260 | 7 | 434 | 3041 | 428 | 50 | 350 | 12 |
| 265 | 7 | 364 | 2545 | 430 | 50 | 350 | 12 |
| 270 | 7 | 312 | 2181 | 432 | 58 | 407 | 12 |
| 275 | 8 | 115 | 918 | 433 | 64 | 514 | 13 |
| 280 | 7 | 273 | 1912 | 435 | 59 | 414 | 13 |
| 285 | 7 | 179 | 1252 | 436 | 48 | 336 | 14 |
| 290 | 7.5 | 210 | 1575 | 438 | 50 | 373 | 14 |
| 295 | 8 | 393 | 3142 | 441 | 60 | 483 | 15 |
| 300 | 7 | 229 | 1606 | 443 | 46 | 325 | 15 |
| 305 | 8 | 100 | 801 | 443 | 43 | 341 | 15 |
| 310 | 8 | 128 | 1027 | 444 | 61 | 484 | 16 |
| 315 | 7.5 | 48 | 362 | 445 | 51 | 385 | 16 |
| 320 | 6.5 | 105 | 681 | 446 | 50 | 328 | 16 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Group 3. Venom and AV in lymph samples from sheep "h" | | | | | | | |
| t (min) | lymph volume (ml) | venom [ng/ml] | venom per sample (ng) | cumulative venom (µg) | AV [µg/ml] | AV per sample (µg) | cumulative AV (mg) |
| 0 |  | 0 | 0 | 0 |  |  |  |
| 5 mg of *Micrurus fulvius* venom injected SC | | | | | | | |
| 5 | 14.5 | 1 | 15 | 0.015 |  |  |  |
| 9 | 15 | 122 | 1835 | 2 |  |  |  |
| 10 | 6 | 998 | 5990 | 8 |  |  |  |
| 15 | 15 | 1541 | 23117 | 31 |  |  |  |
| 19.5 | 15 | 1437 | 21554 | 53 |  |  |  |
| 23 | 15 | 1067 | 16012 | 69 |  |  |  |
| 28 | 15 | 704 | 10564 | 79 |  |  |  |
| 33 | 13.5 | 738 | 9957 | 89 |  |  |  |
| 38 | 15 | 392 | 5886 | 95 |  |  |  |
| 43 | 15 | 585 | 8779 | 104 |  |  |  |
| 47 | 15 | 308 | 4617 | 108 |  |  |  |
| 50 | 15 | 1014 | 15210 | 124 |  |  |  |
| 53 | 15 | 852 | 12787 | 136 |  |  |  |
| 57 | 15 | 2477 | 37158 | 173 |  |  |  |
| 61 | 15 | 1678 | 25163 | 199 |  |  |  |
| 65 | 15 | 1550 | 23256 | 222 |  |  |  |
| 68 | 15 | 2029 | 30438 | 252 |  |  |  |
| 72 | 15 | 1893 | 28390 | 281 |  |  |  |
| 75 | 15 | 1135 | 17026 | 298 |  |  |  |
| 77 | 15 | 891 | 13364 | 311 |  |  |  |
| 80 | 15 | 438 | 6571 | 318 |  |  |  |
| 88 | 1 | 747 | 747 | 318 |  |  |  |
| 114 | 15 | 767 | 11509 | 330 |  |  |  |
| 119 | 15 | 647 | 9709 | 340 |  |  |  |
| 120 | 2.5 | 666 | 1664 | 341 | 0 | 0 |  |
| **AV administered IV after two hours of envenomation** | | | | | | | |
| 125 | 12.4 | 916 | 11352 | 353 | 0 | 0 |  |
| 130 | 13 | 739 | 9604 | 362 | 1.5 | 20 | 0.02 |
| 135 | 12.5 | 577 | 7208 | 369 | 7.6 | 94 | 0.11 |
| 140 | 12 | 477 | 5723 | 375 | 18 | 219 | 0.33 |
| 145 | 13.5 | 527 | 7121 | 382 | 23 | 313 | 0.65 |
| 150 | 13.8 | 424 | 5848 | 388 | 35 | 482 | 1.1 |
| 155 | 12.5 | 469 | 5868 | 394 | 31 | 389 | 1.5 |
| 160 | 13.5 | 376 | 5078 | 399 | 28 | 377 | 1.9 |
| 165 | 13.8 | 266 | 3666 | 403 | 38 | 530 | 2.4 |
| 170 | 15 | 235 | 3521 | 406 | 51 | 770 | 3.2 |
| 173 | 15 | 162 | 2437 | 409 | 45 | 679 | 3.9 |
| 177 | 15 | 127 | 1909 | 411 | 40 | 603 | 4.5 |
| 180 | 15 | 60 | 907 | 412 | 58 | 864 | 5.3 |
| 183 | 15 | 71 | 1070 | 413 | 33 | 489 | 5.8 |
| 187 | 15 | 84 | 1253 | 414 | 34 | 511 | 6.3 |
| 192 | 14.5 | 142 | 2061 | 416 | 40 | 573 | 6.9 |
| 197 | 14 | 178 | 2489 | 418 | 39 | 547 | 7.5 |
| 202 | 13.8 | 154 | 2124 | 421 | 40 | 554 | 8.0 |
| 207 | 13.5 | 107 | 1445 | 422 | 35 | 474 | 8.5 |
| 212 | 13.2 | 95 | 1254 | 423 | 44 | 581 | 9.1 |
| 217 | 14 | 71 | 997 | 424 | 60 | 841 | 9.9 |
| 222 | 11.5 | 35 | 400 | 425 | 55 | 629 | 11 |
| 227 | 8.5 | 31 | 262 | 425 | 51 | 434 | 11 |
| 232 | 8.5 | 110 | 933 | 426 | 36 | 302 | 11 |
| 237 | 9.5 | 171 | 1620 | 427 | 40 | 376 | 12 |
| 242 | 9.5 | 161 | 1525 | 429 | 60 | 574 | 12 |
| 247 | 9.5 | 145 | 1374 | 430 | 69 | 655 | 13 |
| 252 | 7.5 | 132 | 987 | 431 | 75 | 566 | 13 |
| 257 | 10.7 | 138 | 1480 | 433 | 80 | 860 | 14 |
| 264 | 13.5 | 106 | 1429 | 434 | 100 | 1350 | 16 |
| 270 | 11.5 | 80 | 923 | 435 | 72 | 825 | 16 |
| 276 | 11 | 29 | 323 | 436 | 77 | 844 | 17 |
| 280 | 6 | 48 | 289 | 436 | 81 | 488 | 18 |
| 285 | 10 | 67 | 667 | 436 | 63 | 631 | 18 |
| 290 | 11 | 48 | 533 | 437 | 80 | 875 | 19 |
| 295 | 13.4 | 7 | 96 | 437 | 99 | 1321 | 21 |
| 300 | 9.5 | 8 | 74 | 437 | 75 | 717 | 21 |
| 305 | 9.1 | 12 | 110 | 437 | 68 | 621 | 22 |
| 310 | 8.5 | 16 | 132 | 437 | 52 | 445 | 22 |
| 315 | 8.5 | 18 | 157 | 438 | 106 | 898 | 23 |
| 320 | 8.5 | 14 | 116 | 438 | 108 | 920 | 24 |
| 325 | 8 | 9 | 73 | 438 | 97 | 779 | 25 |
| 330 | 8.9 | 9 | 77 | 438 | 107 | 954 | 26 |
| 335 | 8.5 | 5 | 39 | 438 | 107 | 905 | 27 |
| 340 | 8.5 | 3 | 29 | 438 | 126 | 1072 | 28 |
| 345 | 8.5 | 3 | 29 | 438 | 152 | 1293 | 29 |
| 350 | 9.5 | 3 | 29 | 438 | 132 | 1256 | 31 |
| 355 | 11 | 2 | 23 | 438 | 108 | 1184 | 32 |
| 360 | 12.5 | 3 | 38 | 438 | 94 | 1172 | 33 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Levels of venom and 3FTx in serum from each sheep of group 2 used to calculate AUC before and after antivenom injection. (figure 4) | | | | | | | | |
|  | **Sheep “a”** | | **Sheep “b”** | | **Sheep “c”** | | **Sheep “d”** | |
| **t (min)** | **venom [ng/ml]** | **3FTX [ng/ml]** | **venom [ng/ml]** | **3FTX [ng/ml]** | **venom [ng/ml]** | **3FTX [ng/ml]** | **venom [ng/ml]** | **3FTX [ng/ml]** |
| 2 | 5.2 | 0 | 12.0 | 2.6 | 1.3 | 0.0 | 3.9 | 0 |
| 5 | 26.2 | 2.6 | 39.9 | 7.8 | 12.8 | 0.0 | 3.9 | 0 |
| 7 | 40.7 | 2.0 | 52.9 | 10.4 | 23.6 | 1.0 | 9.7 | 1.3 |
| 10 | 50.3 | 3.0 | 59.6 | 14.7 | 42.8 | 1.5 | 29.8 | 1.9 |
| 15 | 58.4 | 2.9 | 71.7 | 11.7 | 67.8 | 2.1 | 41.8 | 3.7 |
| 20 | 61.4 | 3.1 | 78.9 | 9.6 | 78.5 | 2.8 | 60.7 | 3.0 |
| 25 | 44.8 | 4.9 | 88.3 | 12.5 | 92.8 | 3.1 | 76.3 | 3.7 |
| 30 | 74.5 | 2.8 | 87.4 | 13.0 | 98.5 | 3.7 | 92.9 | 3.4 |
| 35 | 88.9 | 3.6 | 83.8 | 13.8 | 120.7 | 4.2 | 97.8 | 4.8 |
| 40 | 89.8 | 4.6 | 91.4 | 19.9 | 130.8 | 4.8 | 112.7 | 4.5 |
| 45 | 114.6 | 5.8 | 100.2 | 14.8 | 144.4 | 5.2 | 112.0 | 5.4 |
| 50 | 140.4 | 7.4 | 127.4 | 16.0 | 134.4 | 4.8 | 128.7 | 5.8 |
| 55 | 173.8 | 10.9 | 170.0 | 18.3 | 117.0 | 4.5 | 140.2 | 7.9 |
| 60 | 207.0 | 11.6 | 171.4 | 18.5 | 111.8 | 5.5 | 147.5 | 8.3 |
| 75 | 231.2 | 13.9 | 181.0 | 22.1 | 138.0 | 5.2 | 160.2 | 11.0 |
| 90 | 252.4 | 15.9 | 203.4 | 26.1 | 138.0 | 6.0 | 139.6 | 11.2 |
| 105 | 282.8 | 11.7 | 219.0 | 26.7 | 165.0 | 6.4 | 147.7 | 12.4 |
| 120 | 293.3 | 19.9 | 238.0 | 28.4 | 185.1 | 8.2 | 161.7 | 11.6 |
| **AV injection (IV)** | | | | | | | | |
| 140 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 2.2 |
| 160 | 0.7 | 0.8 | 10.1 | 2.7 | 0.0 | 0.7 | 2.5 | 4.5 |
| 180 | 1.9 | 1.8 | 23.8 | 7.3 | 1.6 | 1.4 | 10.2 | 7.3 |
| 200 | 5.1 | 3.3 | 32.4 | 6.8 | 2.5 | 2.6 | 10.4 | 9.5 |
| 220 | 6.3 | 4.1 | 23.5 | 7.4 | 2.8 | 2.8 | 14.1 | 4.6 |
| 240 | 10.8 | 3.7 | 41.3 | 9.7 | 3.3 | 4.5 | 16.2 | 5.7 |
| 260 | 11.1 | 4.3 | 32.3 | 12.2 | 4.2 | 5.4 | 21.0 | 8.6 |
| 280 | 13.1 | 5.7 | 53.8\* | ND | 7.5 | 6.3 | 28.3 | 6.6 |
| 300 | 20.3 | 6.1 | 42.2\* | ND | 9.3 | 6.6 | 25.5 | 6.6 |
| 320 | 23.9 | 7.0 | 35.5\* | ND | 6.3 | 7.5 | 21.5 | 8.3 |
| 340 | 12.7 | 11.8 | 22.9\* | ND | 6.2 | 8.4 | 30.4 | 9.6 |
| 360 | 11.5 | 13.0 | 22.8\* | ND | 10.0 | 9.1 | ND | ND |
|  |  |  |  |  |  |  |  |  |
| **Area Under the Curve (AUC)** | | | | | | | | |
| before AV | 20375 | 1136 | 17546 | 2277 | 14309 | 565 | 13806 | 737 |
| after AV | 2420 | 1092 | 2944 | 820 | 973 | 1006 | 3298 | 1350 |
| \* Values not considered for this calculation | | | | | | | | |