

| Fig 2C | Microglial complexity | |
|---------------------------|---------------------------|--------------------|
| | Pre-ket/xyl | Post-ket/xyl |
| Values | 1.589813563 | 1.535612357 |
| | 1.598335304 | 1.584283553 |
| | 1.539948937 | 1.560683102 |
| | 1.516786632 | 1.490205717 |
| | 1.57431312 | 1.538736543 |
| | 1.556073862 | 1.503621982 |
| | 1.604381649 | 1.601622396 |
| | 1.502075107 | 1.495271854 |
| | 1.445230362 | 1.434893783 |
| | 1.594030138 | 1.533133872 |
| | 1.579194713 | 1.546303997 |
| | 1.568386249 | 1.520518006 |
| | 1.477742716 | 1.511342142 |
| | 1.502107789 | 1.492477183 |
| | 1.481255801 | 1.447081837 |
| | 1.57948573 | 1.53434315 |
| | 1.550472439 | 1.498137048 |
| | 1.553221984 | 1.524583994 |
| Mean | 1.545158672 | 1.519602918 |
| SEM | 0.011123085 | 0.009869768 |
| Statistical method | Paired t-test, two tailed | |
| p-value | ***p<0.001 | |
| # cells | 18 | 18 |

| Fig 2D | Microglial motility | |
|---------------------------|---------------------------|--------------------|
| | Pre-ket/xyl | Post-ket/xyl |
| Values | 741.1652524 | 633.6537545 |
| | 874.3865943 | 798.2409871 |
| | 960.3261924 | 984.7037826 |
| | 764.9635285 | 572.0439496 |
| | 893.5543853 | 706.0208525 |
| | 733.3180186 | 601.7652104 |
| | 814.271851 | 675.2949477 |
| | 933.2632106 | 852.8060132 |
| | 612.4491291 | 571.1101922 |
| | 1046.914288 | 646.6579845 |
| | 958.4653837 | 823.4860105 |
| | 758.0204792 | 655.6078447 |
| | 638.6186698 | 609.5658157 |
| | 719.7512485 | 614.9074623 |
| | 909.1818296 | 709.9264306 |
| | 1108.854035 | 954.0874585 |
| | 1074.250903 | 750.2197091 |
| | 951.3645108 | 706.5891 |
| Mean | 860.7288617 | 714.8159725 |
| SEM | 34.39918115 | 29.19523509 |
| Statistical method | Paired t-test, two tailed | |
| p-value | ****p<0.0001 | |
| # cells | 18 | 18 |

| Fig 2E | Microglial complexity | |
|---------------------------|---------------------------|--------------------|
| | Pre-pento | Post-pento |
| Values | 1.479133065 | 1.48639672 |
| | 1.546229554 | 1.539486458 |
| | 1.54573941 | 1.557500897 |
| | 1.603696273 | 1.580118169 |
| | 1.558112188 | 1.526161703 |
| | 1.627189589 | 1.626023184 |
| | 1.56064275 | 1.555195613 |
| | 1.565231482 | 1.586279565 |
| | 1.542170597 | 1.594389887 |
| | 1.572623602 | 1.559559698 |
| | 1.561611859 | 1.575038664 |
| | 1.571754227 | 1.563928153 |
| | 1.556566274 | 1.578045862 |
| | 1.580052777 | 1.606503394 |
| | 1.556303117 | 1.54765312 |
| | 1.591221344 | 1.591554174 |
| | 1.539678727 | 1.528475888 |
| | 1.613333483 | 1.628736904 |
| Mean | 1.565071684 | 1.568391559 |
| SEM | 0.007717446 | 0.00848031 |
| Statistical method | Paired t-test, two tailed | |
| p-value | p>0.05 | |
| # cells | 18 | 18 |

| Fig 2F | Microglial motility | |
|---------------------------|---------------------------|--------------------|
| | Pre-pento | Post-pento |
| Values | 701.1620645 | 681.4787444 |
| | 857.7296314 | 720.3899371 |
| | 816.4977289 | 688.5277835 |
| | 1010.027849 | 880.8181989 |
| | 746.1730688 | 601.5994777 |
| | 1021.288604 | 873.2763583 |
| | 760.4657055 | 647.9059597 |
| | 869.3778987 | 809.1606861 |
| | 637.9018478 | 681.7006905 |
| | 1185.767106 | 960.3784895 |
| | 887.3529871 | 827.5206656 |
| | 708.9661404 | 617.1317003 |
| | 833.8512766 | 799.0240303 |
| | 923.6451938 | 873.2442586 |
| | 808.6262107 | 751.7762988 |
| | 944.8154434 | 957.3760493 |
| | 714.1810186 | 596.6062315 |
| | 805.5660382 | 743.6784492 |
| Mean | 846.2997674 | 761.7552227 |
| SEM | 32.00374675 | 27.54474249 |
| Statistical method | Paired t-test, two tailed | |
| p-value | ****p<0.0001 | |
| # cells | 18 | 18 |

| Fig 3D | Microglial cytoplasm | | |
|--------------------|--|--------------------|--------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 59.2 | 48.24 | 50.4 |
| | 52.64 | 61.84 | 51.84 |
| | 54.6 | 58.86 | 49.52 |
| | 50.32 | 55.48 | 53.56 |
| | 54.36 | 51.32 | 57.12 |
| | | 58.44 | 58.4 |
| Mean | 54.224 | 55.69666667 | 53.47333333 |
| SD | 3.266141454 | 5.100531998 | 3.6144082 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 3E | Microglial complexity | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 3.211 | 3.001 | 3.411 |
| | 3.501 | 3.265 | 3.409 |
| | 3.548 | 3.264 | 3.489 |
| | 3.564 | 3.257 | 3.132 |
| | 3.409 | 3.059 | 3.527 |
| | | 3.279 | 3.408 |
| Mean | 3.4466 | 3.1875 | 3.396 |
| SD | 0.14486649 | 0.123576292 | 0.13859582 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p<0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 3F | Microglial cell environment | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 198.4 | 134.8 | 213.4 |
| | 259.3 | 169 | 230.3 |
| | 245.9 | 189.4 | 208.4 |
| | 141 | 154.1 | 163.8 |
| | 169.6 | 141.9 | 220.3 |
| | | 209 | 217.9 |
| Mean | 202.84 | 166.3666667 | 209.016667 |
| SD | 49.97672458 | 28.6377839 | 23.338159 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 3G | Segments by cell | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 10.93 | 9.246 | 10.97 |
| | 12.17 | 10.11 | 11.36 |
| | 11.78 | 10.47 | 11.31 |
| | 10.41 | 9.817 | 10.03 |
| | 10.99 | 9.666 | 11.89 |
| | | 11.34 | 11.77 |
| Mean | 11.256 | 10.10816667 | 11.2216667 |
| SD | 0.70758745 | 0.731021318 | 0.67196478 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 3H | Microglial ramification length | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 336.3 | 287.6 | 345 |
| | 380.9 | 310.9 | 358.3 |
| | 369.4 | 328.8 | 354.1 |
| | 316.2 | 298.8 | 309.8 |
| | 342.3 | 292.4 | 361.8 |
| | | 318 | 366.6 |
| Mean | 349.02 | 306.0833333 | 349.266667 |
| SD | 26.05661145 | 15.89445396 | 20.6800064 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p<0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 3I | Microglial nodes | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 7.435 | 6.093 | 7.885 |
| | 8.694 | 6.909 | 8.117 |
| | 8.439 | 7.23 | 8.077 |
| | 7.395 | 6.679 | 6.779 |
| | 7.698 | 6.425 | 8.55 |
| | | 7.877 | 8.399 |
| Mean | 7.9322 | 6.868833333 | 7.96783333 |
| SD | 0.597458534 | 0.62982487 | 0.62915449 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1975 | 2662 | 2495 |

| Fig 4A | Microglial cytoplasm | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 60.4 | 55.86 | 54.86 |
| | 67.24 | 60.76 | 61.5 |
| | 81.4 | 59.72 | 59.88 |
| | 62.76 | 62.3 | 52.72 |
| | 69.48 | 57.88 | 57.62 |
| | | 69 | 64.72 |
| Mean | 68.256 | 60.92 | 58.55 |
| SD | 8.173400761 | 4.549760433 | 4.40477468 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p<0.05 |
| # cells | 1713 | 1808 | 2173 |

| Fig 4B | Microglial complexity | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 3.328 | 3.182 | 3.389 |
| | 3.691 | 3.444 | 3.623 |
| | 3.831 | 3.191 | 3.784 |
| | 3.43 | 3.157 | 3.581 |
| | 3.802 | 3.29 | 3.477 |
| | | 3.563 | 3.787 |
| Mean | 3.6164 | 3.3045 | 3.60683333 |
| SD | 0.225823604 | 0.165007576 | 0.16067659 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p<0.05 | p>0.05 |
| # cells | 1713 | 1808 | 2173 |

| Fig 4C | Microglial cell environment | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 188.6 | 171.7 | 125.1 |
| | 237.4 | 186.5 | 220.6 |
| | 226.8 | 192 | 273.2 |
| | 195 | 179.1 | 186.1 |
| | 224 | 200 | 243.2 |
| | | 186.5 | 289.7 |
| Mean | 214.36 | 185.9666667 | 222.983333 |
| SD | 21.31262537 | 9.844727861 | 60.5454347 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1713 | 1808 | 2173 |

| Fig 4D | Segments by cell | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 10.09 | 10.17 | 10.34 |
| | 12.44 | 10.35 | 12.2 |
| | 13.61 | 10.8 | 12.33 |
| | 11.18 | 10.34 | 11.21 |
| | 12.41 | 10.59 | 11.75 |
| | | 11.75 | 13.12 |
| Mean | 11.946 | 10.66666667 | 11.825 |
| SD | 1.347193379 | 0.574618714 | 0.96558273 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1713 | 1808 | 2173 |

| Fig 4E | Microglial ramification length | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 314.7 | 307.2 | 327 |
| | 385.8 | 315.7 | 378.5 |
| | 416.4 | 331.3 | 381.6 |
| | 345.6 | 323.4 | 353.8 |
| | 383.6 | 332.3 | 357.7 |
| | | 353.8 | 412.4 |
| Mean | 369.22 | 327.2833333 | 368.5 |
| SD | 39.4904039 | 16.10607546 | 29.1677905 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1713 | 1808 | 2173 |

| Fig 4F | Microglial nodes | | |
|--------------------|--|--------------------|-------------------|
| | Control | Ket/xyl | Thiopental |
| Values | 7.378 | 6.94 | 7.028 |
| | 8.329001 | 7.117 | 8.767 |
| | 10.07 | 7.314 | 8.804 |
| | 7.72 | 7.004 | 7.909 |
| | 8.989 | 7.314 | 8.302 |
| | | 8.344 | 9.523 |
| Mean | 8.4972002 | 7.338833333 | 8.38883333 |
| SD | 1.072439563 | 0.516136578 | 0.85922696 |
| Statistical method | Kruskall Wallis test and Dunn's correction | | |
| p-value | | p>0.05 | p>0.05 |
| # cells | 1713 | 1808 | 2173 |