

Appendix - 4 : Individual data on lipid changes in gray and white matter with thiamine deficiency.

| rat no.                      | body weight (g) | brain weight (g) | cholesterol |      | galactolipids |      | phospholipids |      | gangliosides |     |
|------------------------------|-----------------|------------------|-------------|------|---------------|------|---------------|------|--------------|-----|
|                              |                 |                  | GM          | WM   | GM            | WM   | GM            | WM   | GM           | WM  |
| 1                            | 2               | 3                | 4           | 5    | 6             | 7    | 8             | 9    | 10           | 11  |
| CONTROL (C) GROUP            |                 |                  |             |      |               |      |               |      |              |     |
| 1                            | 46              | 1.375            | 14.0        | 28.6 | 4.77          | 17.2 | 31.3          | 45.0 | 962          | 569 |
| 2                            | 54              | 1.432            | 15.0        | 26.1 | 4.17          | 16.4 | 31.1          | 43.8 | 1074         | 531 |
| 3                            | 46              | 1.440            | 14.1        | 25.3 | 3.76          | 16.3 | 30.0          | 44.7 | 1056         | 578 |
| 4                            | 48              | 1.490            | 14.5        | 27.2 | 3.60          | 15.9 | 28.8          | 43.9 | 1060         | 528 |
| 5                            | 54              | 1.460            | 14.4        | 29.3 | 4.84          | 19.4 | 27.3          | 40.0 | 1097         | 460 |
| 6                            | 45              | 1.545            | 14.4        | 26.4 | 4.10          | 16.9 | 30.2          | 41.0 | 1053         | 523 |
| 7                            | 50              | 1.400            | 13.7        | -    | 3.75          | -    | 30.3          | 40.3 | 1042         | 538 |
| 8                            | 48              | 1.480            | 15.0        | 27.1 | 3.91          | 17.1 | 32.2          | 46.4 | 1063         | 519 |
| PAIR FED CONTROL (PFC) GROUP |                 |                  |             |      |               |      |               |      |              |     |
| 9                            | 20              | 1.205            | 13.5        | 20.8 | 3.92          | 12.5 | 29.5          | 39.4 | 939          | 520 |
| 10                           | 23              | 1.275            | 13.4        | 23.8 | 3.42          | 14.9 | 27.6          | 39.3 | 963          | 532 |
| 11                           | 20              | 1.200            | 14.1        | 24.0 | 3.42          | 14.6 | 28.5          | 41.6 | 1022         | 440 |
| 12                           | 19              | 1.195            | 13.5        | 24.4 | 3.60          | 13.3 | 29.4          | 39.4 | 1031         | 484 |

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Appendix - 4 : contd.

| 1                              | 2    | 3     | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11  |
|--------------------------------|------|-------|------|------|------|------|------|------|------|-----|
| THIAMINE DEFICIENCY (TD) GROUP |      |       |      |      |      |      |      |      |      |     |
| 13                             | 16.0 | 1.108 | 14.1 | 25.5 | 3.25 | 10.5 | 28.9 | 36.6 | 573  | 527 |
| 14                             | 18.5 | 1.140 | -    | 25.6 | -    | -    | -    | -    | -    | 461 |
| 15                             | 17.0 | 1.175 | 14.1 | 24.8 | 3.97 | 10.1 | 29.9 | 40.5 | 975  | 573 |
| 16                             | 14.0 | 1.205 | 14.0 | 27.4 | 3.86 | 11.0 | 29.8 | 38.8 | 1128 | 583 |
| 17                             | 18.5 | 1.105 | 13.9 | 28.0 | 3.37 | 13.0 | 28.1 | 38.2 | 930  | 468 |
| 18                             | 16.0 | 1.100 | 15.0 | 26.7 | 4.00 | 11.6 | 30.2 | 37.6 | 1184 | 530 |
| 19                             | 15.0 | 0.950 | 13.9 | -    | 4.25 | 11.5 | 31.1 | 40.2 | 1119 | 575 |
| 20                             | 16.0 | 1.075 | 14.0 | 26.0 | 3.67 | 10.1 | 30.9 | 38.0 | 1021 | 464 |

Appendix - 4(a) : Individual data on changes in phospholipids in gray and white matter with thiamine deficiency.

| rat no.                      | plasmalogens |      | EPG  |      | CPG  |      | SM   |      | SPG + IPG |      |
|------------------------------|--------------|------|------|------|------|------|------|------|-----------|------|
|                              | GM           | WM   | GM   | WM   | GM   | WM   | GM   | WM   | GM        | WM   |
| 1                            | 2            | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10        | 11   |
| CONTROL (C) GROUP            |              |      |      |      |      |      |      |      |           |      |
| 1                            | 5.15         | 10.4 | -    | 16.9 | 13.2 | -    | 0.98 | 2.15 | 5.27      | 6.92 |
| 2                            | 4.44         | 9.04 | 10.4 | -    | 13.7 | -    | 1.09 | 2.52 | 4.93      | 6.26 |
| 3                            | 4.15         | 9.18 | 10.6 | 17.2 | 13.1 | 15.2 | 1.21 | 2.22 | 4.83      | 7.03 |
| 4                            | 3.93         | 9.24 | 10.2 | 17.6 | -    | 14.3 | 1.27 | 2.69 | -         | 6.41 |
| 5                            | 4.05         | 11.8 | 10.4 | 18.4 | -    | 15.7 | -    | -    | 5.38      | 7.94 |
| 6                            | 4.30         | 9.24 | 10.6 | 16.9 | 13.2 | 16.0 | 0.96 | 2.29 | 4.80      | -    |
| 7                            | 4.30         | -    | 10.1 | -    | 13.8 | 15.0 | 1.02 | 2.00 | -         | 6.40 |
| 8                            | 4.74         | 9.19 | 11.9 | 17.1 | 14.1 | 15.1 | 1.08 | 2.63 | 4.23      | 6.31 |
| PAIR FED CONTROL (PFC) GROUP |              |      |      |      |      |      |      |      |           |      |
| 9                            | 4.30         | 7.76 | 10.2 | 13.7 | 13.1 | 15.5 | 1.04 | 2.55 | 4.26      | 7.29 |
| 10                           | 4.83         | 7.33 | 10.8 | 14.7 | 13.0 | 14.9 | 1.08 | 2.37 | 4.10      | 6.37 |
| 11                           | 4.13         | 8.67 | 10.6 | 14.0 | 13.8 | 15.9 | 1.07 | 2.47 | 4.86      | 6.89 |
| 12                           | 4.26         | 8.20 | 11.0 | -    | 13.4 | 13.2 | 0.91 | 2.40 | 4.52      | 5.45 |

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Appendix - 4(a) : contd.

| 1                             | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   |
|-------------------------------|------|------|------|------|------|------|------|------|------|------|
| THIAMINE DEFICIENT (TD) GROUP |      |      |      |      |      |      |      |      |      |      |
| 13                            | 3.92 | 5.44 | 10.7 | 15.4 | -    | 13.6 | 1.27 | 2.00 | 4.43 | 5.20 |
| 14                            | 3.46 | 6.37 | 10.4 | 12.9 | -    | 12.0 | 1.21 | 1.86 | 3.92 | -    |
| 15                            | 4.26 | 5.72 | 10.8 | -    | 13.5 | 11.9 | 0.92 | 1.68 | 4.23 | -    |
| 16                            | 4.53 | 5.02 | 10.8 | 13.9 | 13.2 | 12.7 | 0.92 | 1.71 | 5.34 | 5.21 |
| 17                            | 3.93 | 6.24 | 10.6 | 13.4 | 13.1 | 12.1 | 0.87 | 1.68 | 4.04 | 5.28 |
| 18                            | 3.41 | 6.55 | -    | 16.4 | 14.3 | 16.6 | 1.16 | 1.93 | -    | 6.21 |
| 19                            | 4.28 | 8.08 | 10.3 | 16.8 | 12.6 | 15.4 | 1.37 | 2.69 | 5.61 | 6.92 |
| 20                            | 4.11 | 7.46 | 10.5 | 15.0 | 12.8 | 15.1 | 1.00 | 1.87 | 3.92 | 6.27 |