

TABLES

Table 1: Thiol-disulfide homeostasis parameters of the study and control groups.

| Variables | Control (n=30) | CKD (stage 3-5) (n=30) | Hemodialysis (n=30) | p |
|--|-------------------|---------------------------|------------------------|--|
| Native thiol (μmol/L) | 463.1 ± 69.1 | 230.7 ± 59.9 | 202.6 ± 79.7 | 0.001 ^a ,0.001 ^b ,0.665 ^c |
| Total thiol (μmol/L) | 495.7± 68.7 | 267.7 ± 66.4 | 264.9 ± 98.6 | 0.001 ^a ,0.001 ^b ,0.999 ^c |
| Disulfide (μmol/L) | 16.3 ± 4.8 | 18.5 ± 7.4 | 31.2 ± 12.3 | 0.547 ^a ,0.001 ^b ,0.001 ^c |
| Disulfide / Native thiol (%) | 3.6± 1.46 | 8.5± 4.4 | 20.7 ± 14.6 | 0.001 ^a ,0.001 ^b ,0.001 ^c |
| Disulfide /Total thiol (%) | 3.3 ± 1.2 | 7.0 ± 3.3 | 13.4 ± 6.5 | 0.001 ^a ,0.001 ^b ,0.001 ^c |
| Native thiol / Total thiol (%) | 93.3 ± 2.5 | 85.7 ± 5.7 | 73.4 ± 13.1 | 0.001 ^a ,0.001 ^b ,0.001 ^c |
| IMA (ABSU) | 0.65 ± 0.06 | 0.88 ± 0,22 | 0.91 ± 0.17 | 0.001 ^a ,0.001 ^b ,0.935 ^c |
| TOS (μmol H ₂ O ₂ equiv./lt) | 19.4 ± 4.4 | 27.1 ± 11.2 | 52.2 ± 24.7 | 0.004 ^a ,0.001 ^b ,0.001 ^c |
| TrxR (ng/mL) | 5.2 ± 2.4 | 7.7 ± 2.1 | 27.3 ± 19.9 | 0.001 ^a ,0.001 ^b ,0.001 ^c |
| **CRP (mg/L) | 4.02± 1.13 | 6.54± 3.01 | 9.86 ± 5.56 | 0.002 ^a ,0.001 ^b ,0.028 ^c |
| Median (min-max) | 3.1 (3.1;6.0) | 5.3 (4.1;15.0) | 9.6 (1.2;20.9) | |
| *ANOVA, **Kruskal Wallis a: Control ve CKD (stage 3-5) ,b: Control and Hemodialysis, c: CKD (stage 3-5) and Hemodialysis | | | | |

| Variables | | Age | BUN | Creatinin | GFR | TAS | TOS | OSI | IMA |
|-------------------------------|----------|--------|--------|-----------|--------|--------|--------|--------|--------|
| Native thiol (μmol/L) | r | 0.166 | -0.747 | -0.732 | 0.835 | -0.389 | -0.573 | -0.380 | -0.628 |
| | p | 0.124 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Total thiol(μmol/L) | r | 0.164 | -0.747 | -0.721 | 0.824 | -0.383 | -0.560 | -0.364 | -0.631 |
| | p | 0.126 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Disulfide (μmol/L) | r | -0.057 | 0.143 | 0.254 | -0.084 | 0.163 | 0.211 | 0.171 | 0.056 |
| | p | 0.603 | 0.240 | 0.020 | 0.537 | 0.192 | 0.057 | 0.123 | 0.617 |
| Disulfide/Native thiol (%) | r | -0.097 | 0.597 | 0.672 | -0.672 | 0.078 | 0.481 | 0.389 | 0.347 |
| | p | 0.373 | 0.001 | 0.001 | 0.001 | 0.197 | 0.001 | 0.001 | 0.001 |
| Disulfide/Total thiol (%) | r | -0.098 | 0.651 | -0.682 | -0.682 | 0.269 | 0.470 | 0.351 | 0.390 |
| | p | 0.361 | 0.001 | 0.001 | 0.001 | 0.013 | 0.001 | 0.001 | 0.001 |
| Native thiol /Total thiol (%) | r | 0.099 | -0.651 | -0.725 | 0.682 | -0.269 | -0.470 | -0.351 | -0.390 |
| | p | 0.361 | 0.001 | 0.001 | 0.001 | 0.013 | 0.001 | 0.001 | 0.001 |
| *Pearson corelation test | | | | | | | | | |

Table 2: Correlation analysis of thiol/disulfide homeostasis parameters of the study population

Table 3: Thiol-disulfide parameters in HD patients

| Parametreler | HD (before dialysis) (n=30) | HD (after dialysis) (n=30) | p |
|--|--|---------------------------------------|----------|
| Native thiol (μmol/L) | 202.6 ± 79.7 | 305.2 ± 78.2 | 0.001 |
| Total thiol (μmol/L) | 264.9 ± 98.6 | 358.5 ± 83.2 | 0.002 |
| Disulfide (μmol/L) | 31.2 ± 12.3 | 26.6 ± 7.71 | 0.152 |
| Disulfide / Native thiol (%) | 20.7 ± 14.6 | 9.2 ± 3.3 | 0.001 |
| Disulfide / Total thiol (%) | 13.4 ± 6.5 | 7.65 ± 2.34 | 0.001 |
| Native thiol/ Total thiol (%) | 73.4 ± 13.1 | 84.7 ± 4.63 | 0.001 |
| Alb (g/dL) | 3.97 ± 0.24 | 4.97 ± 0.71 | 0.001 |
| CRP (mg/L) | 9.86 ± 5.56 | 5.47 ± 2.34 | 0.001 |
| IMA (ABSU) | 0.91 ± 0.17 | 0.87 ± 0.17 | 0.475 |
| TAS (mmol Trolox equiv./lt) | 1.14 ± 0.24 | 0.65 ± 0.28 | 0.001 |
| TOS (μmol H ₂ O ₂ equiv./lt) | 27.1 ± 11.2 | 75.1 ± 40.2 | 0.007 |
| OSI (AU) | 2.5 ± 1.1 | 12.4 ± 8.3 | 0.001 |
| TrxR (ng/mL) | 27.3 ± 19.9 | 28.3 ± 19.4 | 0.555 |
| *Paired samples t -test | | | |

Table 4: Comparison of albumin corrected results of thiol-disulfide parameters in hemodialysis patients

| Parametreler | HD (before dialysis) (n=30) | HD (after dialysis) (n=30) | p |
|--|--|---|----------|
| Corrected Native thiol ($\mu\text{mol/L}$) | 202.6 \pm 79.7 | 244.0 \pm 55.6 | 0.143 |
| Corrected Total tiyol ($\mu\text{mol/L}$) | 264.9 \pm 98.6 | 286.5 \pm 56.4 | 0.567 |
| Corrected Disulfide ($\mu\text{mol/L}$) | 31.2 \pm 14.6 | 21.2 \pm 5.49 | 0.001 |
| Corrected Disulfide / Native thiol (%) | 20.7 \pm 14.6 | 7.42 \pm 2.70 | 0.001 |
| Corrected Disulfide /Total thiol (%) | 13.4 \pm 6.5 | 6.17 \pm 1.95 | 0.001 |
| Corrected Native thiol /Total thiol (%) | 73.4 \pm 4.55 | 68.9 \pm 12.4 | 0.062 |
| *Paired samples t-test | | | |