

4. Discussion

4.1 Discussion:

This study was carry out in IBN SINA Hospital in Khartoum state (Sudan) try to though some light on renal failure patients by estimation of uric acid, calcium and phosphate level in pre dialysis and post dialysis.

The result of this study showed significantly increased in the mean of serum uric acid level in patients pre dialysis 9.4 ± 2.3 mg/dL compared with that of the control group 3.9 ± 0.9 mg/dL table (3.2) and decreased after dialysis 2.9 ± 1.3 mg/dL table (3.3). This result agrees with study done in Sudan University of science and technology uric acid pre dialysis 7.2 ± 1.7 mg/dL compare with post dialysis 4.1 ± 1.4 mg/dL by (Saif Eldeen Babeker 2008).

Significantly decreased in the mean of serum calcium level in patients pre dialysis 5.4 ± 0.85 mg/dL compared with that of control group 9.8 ± 0.8 mg/dL table (3.4) This result agrees with study done in Sudan University of science and technology calcium level in patients pre dialysis 7.6 ± 0.21 mg/dL compared with that of control group 10.18 ± 0.88 by (Motwakil Yosif 2009) and decreased after dialysis 4.4 ± 1.07 mg/dL table (3.5).

Significantly increased in the mean of serum Phosphate level in patients pre dialysis 5.7 ± 2.04 mg/dL compared with that of the control group 3.7 ± 0.4 mg/dL table (3.6) this result agrees with study done in Sudan university of Science and technology phosphate level in patients pre dialysis 6.6 ± 0.22 mg/dl compare with that of control group 3.15 ± 0.15 mg/dl by Motwakil Yosif 2009. and decreased after dialysis 3.1 ± 1.30 mg/dL table (3.7). This result agree with study done in Sudan University of science and technology phosphate level pre dialysis 6.1 ± 1.7 mg/dL compared with that of post dialysis 4.3 ± 0.8 mg/dL by (Saif Eldeen Babeker 2008).

In the test group, serum uric acid, phosphate and calcium were no correlated with the duration of the disease.

4.2 Conclusion:

In this study:

- Serum uric acid and phosphate levels were significantly increased in patients with chronic renal failure pre dialysis.
- Serum calcium level was significantly decreased in patients with chronic renal failure pre and post dialysis.
- Serum levels of calcium, uric acid and phosphate showed no correlation with the duration of the disease.

4.3 Recommendations:

- Patients with chronic renal failure should dialysis frequently to decrease level of uric acid and phosphate.
- Patients should regular receive calcium supplement to minimize the effect of renal failure on bone in addition they should receive treatment to lower their serum phosphate.
- Uric acid should be check regularly in GFR patients to minimize the effect of renal failure.