Chapter Four

4. DISCUSSION

In this study there was a significant decrease in the mean of plasma sodium and plasma potassium level (mmol/l) in the test group when compared with control group with (p. ≤ 0.05) this result is agree with result observed by (Aflever, C Berette-piccoli JJ Brown, D L Davies, R Fraser and Robertson)whom reported there is moderate negative correlation between the plasma sodium and duration of disease and moderate positive correlation between potassium with duration of Hypertension.\textsuperscript{[41]}

Result showed that in hypertensive patients, the plasma sodium mean level was (135.47±7.0) with (p.value0.03) and (4.083 ±0.5) with ( p.value 0.02) for potassium, which were significantly lower than non-hypertensive group .

The present data demonstrated that there is a significant moderate negative correlation between plasma sodium level (mmol/l) and duration of hypertension ( r −0.2 = p 0.02).

significant moderate positive correlation between plasma potassium plasma level(mmol/l) and duration of hypertension ( r 0.2 , p 0.03).
4.1 Conclusion

From the results of this it is concluded that, in Sudanese patients with hypertension:

- Plasma level of sodium are significantly lower in hypertensive patients
- Plasma level potassium are slightly low in hypertensive patients
- There is a significant weak positive correlation between sodium and duration of disease
- There is a significant moderate positive correlation between potassium and duration of hypertension.
4.2 Recommendation

From the results of this study, it is recommended that:

- Plasma electrolyte sodium and potassium should be checked regularly in hypertensive patients especially in those with prolonged hypertension.
- Health education, diet control and exercise are important factors to control the hypertension and hypertension complication.
- Further studies with large sample size and using other biochemical tools to get more about disease and their complications.