RESULTS

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A total of 90 women in labour and their newborn infants were included in this study. 30 of them received 10 IU oxytocin and 500 ml saline 0.9% (Group I), another 30 received 10 IU oxytocin and 500 ml glucose 5% (Group II), while we took 30 cases as a control groap.

N.B. AP = Antepartum (pre oxytocin) serum level.

PP = Post partum (pos oxytocin)serum level.

UC = Umbilical cord serum level.

SD = Standared deviation.

n = Number of cases.

r = Correlation coefficient.

Table 1: Shows a comparison between group I and thee control group as regarding antepartum, post partam and cord mean serum sodium levels. It shows no significant differeence between mean antepartum serum sodium level of group I and that of the control ($t_1 = 0.2$, $P > 0.05$). There is no significant difference between mean postpartum serum sodium level of group I and that of the control ($t_2 = 0.05$, $P > 0.05$). Also, there is no significant difference between mean cord serum sodium level of group I and that of the control ($t_3 = 0.1$, $P > 0.05$).

Table 2: Shows a comparison between group II and the control group as regarding antepartum, postpartum and cord mean serum sodium levels. There is no significant difference between mean antepartum serum sodium

level of group II and that of the control (t_1 =0.2, P > 0.05).

But there is a significant difference between mean postpartum serum sodium level of group II and that of the control (t = 2.3, P < 0.05), as mean postpartum serum sodium level of group II is significantly lower than mean postpartum serum sodium level of the control group. Also, the mean cord serum sodium level of group II is found to be significantly lower than that of the control and the difference between this two values (mean cord serum sodium level of group II and that of the control) reaches a significant level (t_3 =3, P< 0.05).

Table 3: It shows no significant difference between mean antepartum serum sodium level of group I and that of group II (t_1 =0.3, P > 0.05), while there is a significant decline in mean postpartum serum sodium level of group II than that of group I and the difference between group I and group II as regarding postpartum serum sodium levels reaches a significant value (t_2= 2.4, P < 0.05). Also, there is a significant difference between mean cord serum sodium level of group I and that of group II (t_3 = 3.1, P < 0.05) as mean cord serum sodium level of group II is significantly lower than that of group I.

Table 4: We compare between mean maternal antepartum and postpartum serum sodium levels in each group . In the control group we find that there in no significant difference between mean maternal antepartum and postpartum serum sodium levels (t_3 = 0.75, P > 0.5). Also there is no significant difference in group I between mean maternal antepartum and postpartum serum sodium levels (t_1 = 1.2, P > o.05).While in group II there is a significant difference

between mean maternal antepartum and postpartum serum sodium levels (t_2=5, $P < 0.05$) as postpartum values are significantly lower than antepartum values.

Table 5: Shows a comparison between mean antepartum and cord serum sodium levels in each group. In the control group and in group I there is no singificant difference between mean antepartum and cord serum sodium levels (t_3 =0.96, $P > 0.05$), (t_1 = 1.4,$P > 0.05$) respectively. But in group II mean cord serum sodium value is much more lower than mean antepartum value and the difference between these two values reaches a statistically significant level (t_2 =6.7, $P < 0.05$).

Table 6: Shows a significant positive correlation between maternal postpartum and unbilical cord serum sodium levels in the control group ($r= 0.98$, $P > 0.05$) and in group I ($r= 0.98$, $P < 0.05$). Also in group II there is a significant positive correlation between maternal postpartum and cord serum sodium levels ($r = 0.94$, $P < 0.05$) .

Table 7: Shows mean antepartum serum potassium level in the three studied groups. When comparing between group I and the control group we found no significant differenece (t_1 =0.5,$P > 0.05$) , and when comparing between groupII and the control group we found no significant difference (t_2 = 0.1, $P > 0.05$). Also, by comparing between mean antepartum serum potassium level of group I and that of group II we found no significant difference(t_3=0.4, $P > 0.05$).

Table 8: Shows mean postpartum serum potassium levels of the three studied groups. It shows no significant difference between mean postpartum serum potassium level of group I and the control group ($t_1 = 0.25$, $P > 0.05$). There is no significant difference between group II and the control group as regarding mean postpartum serum potassium level (t_2 0.5, $P > 0.05$). Also, there is no significant difference between mean postpartum serum potassium level of group I and that of group II ($t_3 = 0.2$, $P > 0.05$).

Table 9: Shows mean cord serum potassium levels of the three studied groups. We found no significant difference between mean cord serum potassium level of group I and that of the control (t_1 =0.14, $P >0.05$), and we found no significant difference between mean cord serum potassium level of group II and that of the control ($t_2 = 0.78$, $P > 0.05$). Also we found no significant difference between group I and group II as regarding mean cord serum potassium level ($t_3 = 0.55$, $p > 0.05$).

Table 10: Shows that the difference between mean antepartum and postpartum serum potassium levels in the control group is of no significant value ($t_3 = 0.57$, $P > 0.05$), and the difference between mean antepartum and postpartum serum potassium levels in group I is again of no significcant value ($t_1 = 0.98$, $P > 0.05$). Also there is no significant difference between mean antepartum and postpartum serum potassium levels in group II ($t_2 = 1.3$, $P > 0.05$).

Table 11: Shows that the difference between mean antepartum and cord serum potassium levels in the control group is not significant (t_3=1, $P > 0.05$),

and the difference between mean antepartum and cord serum potassium levels in group I is of no significant value (t_1 =0.37, P > 0.05). Again there is no significant difference between mean antepartum and cord serum potassium levels in group II (t_2 = 1.6, P > 0.05).

Table 12: Shows a significant positive correlation between maternal post partum and umbilical cord serum potassium levels in the control group (r = 0.95 , P < 0.05) and in group I (r = 0.98, P <0.05). Also in group II the correlation between maternal postpartum and cord serum potassium levels reaches a positive significant values (r = 1 , P < 0.05).

Table 13: Shows mean antepartum serum urea levels in the three studied group. It shows no significant difference between antepartum serum urea level of group I and that of the control group (t_1 = 1, P >0.05). Also there is no significant difference between mean antepartum serum urea level of group II and that of thee control group (t_2 =0.9, P > 0.05). Again there is no significant difference between mean antepartum serum urea level of group I and that of group II (t_3 = 0.1, P > 0.05).

Table 14: Shows that there is no significant difference between mean postpartum serum urea level of group I and that of the control group (t_1 =1.2, P > 0.05). Also, there is no significant difference between mean postpartum serum urea level of group II and that of the control group (t_2=0.68, P > 0.05). Again there is no significant difference between mean postpartum serum urea level of group I and that of group II (t_3 = 0.6, P > 0.05).

Table 15: Shows that the difference between mean cord serum urea level of group I and that of the control group, and between mean cord serum urea level of group II and that of the control group are of no significant value (t_1 =0.8, P > 0.05), (t_2 = 0.55, P >0.05) respectively. Also, there is no significant difference between mean cord serum urea level of group I and that of group II (t_3 = 0.26, P > 0.05).

Table 16: Shows that in the control group there is no significant difference between antepartum and postpartum mean serum urea levels (t_3 =0.18, P > 0.05).Also there is no significant difference between antepartum and postpartum mean serum urea levels in group I (t_1 =0.55, P > 0.05) . But it shows that in group II postpartum mean serum urea level is signficantly lower than mean antepartum serum urea level of the same group and the difference between them reaches a statistically significant value (t_2 = 2.45, P < 0.05).

Table 17: Shows that in the control group there is no significant difference between antepartum and cord mean serum urea levels (t_3 = 0.75 , P > 0.05). Also there is no significant difference between antepartum and cord mean serum urea levels in group I (t_1=1.18, P > 0.05), while there is a significant difference between antepartum and cord mean serum urea levels in group II (t_2 = 2.78, P < 0.05) as mean cord serum urea level is significantly lower than antepartum value.

Table 18: Shows a significant positive correlation between maternal postpartum and umbilical cord serum urea levels in the control group (r = 1 , P < 0.05) and in group I (r = 0.99 , P < 0.05), Also it shows th t in group II

there is a significant positive correlation between maternal post partum and cord serum urea levels ($r = 0.99$, $P < 0.05$).

Table 19: Shows that there is no significant difference between group I and the control group, and between group II and the control group as regarding mean antepartum serum creatinine levels ($t_1 = 0.25$, $P > 0.05$), ($t_2 = 0.97$, $P > 0.05$) respectively. Also the difference betweeen mean antepartum serum creatinine level of group I and that of group II does't reach a significant value ($t_3 = 1$, $P > 0.05$).

Table 20: Shows that there is no significant difference between group I and the control group, and between group II and the control group as regarding mean postpartum serum creatinine levels ($t_2 = 0.05$, $P > 0.05$),($t_2 = 0.93$, $P > 0.05$) respectively. Also there is no significant difference between mean post partum serum creatinine level of group I and that of group II ($t_3 = 0.84$, $P > 0.05$).

Table 21: Shows that there is no significant difference between group I and the control group, and between group II and the control group as regarding mean cord serum creatinine levels ($t_1 = 0.05$, $P > 0.05$), ($t_2 = 0.65$, $P > 0.05$), respectively. Also the difference between mean cord serum creatinine level of group I and that of group II is of no significant value ($t_3 = 0.6$, $P > 0.05$).

Table 22: Shows that the difference between mean antepartum and mean post partum serum creatinine levels is not significant in the control group ($t_3 = 0.65$, $P > 0.05$) and in group I ($t_1 = 1$, $P > 0.05$). Also in group II

the difference between mean antepartum and potpartum serum creainine levels is not significant (t_2 =1, P > 0.05).

Table 23: Shows that the difference between mean antepartum and cord serum creatinine levels is not significant in the control group (t_3 = 0.25 , P > 0.05) , and in group I (t_1 =1, P > 0.05). Also there is no significant difference between mean nntepartum and cord serum creatinine levels in group II (t_2 =1.95, P > 0.05) .

Table 24: Shows that there is a significant positive correlation between maternal postpartum and umbilical cord serum creatinine levels in the control group (r = 0.99 , P > 0.05) and in group I (r = 1 , P > 0.05) . Again it shows a significant positive correlation between maternal postpartum and cord serum creatinine levels in group II (r = 1, P< 0.05).

Figure 1: Shows antepartum (AP) , postpartum (PP) and cord (C) serum sodium levels (mEq/L) in all the groups presented by columns.

Figure 2: Shows antepartum (AP) , postpartum (PP) and cord (C) serum potassium levels (mEq/L) in all the groups presented by columns.

Figure 3: Shows antepartum (AP) , postpartum (PP) and cord (C) serum urea levels (mg/dl) in all the groups presented by columns.

Figure 4: Shows antepartum (AP) , postpartum (PP) and cord (C) serum creatinine levels (mg/dl) in all the groups presented by columns.

Table 1: Mean serum sodium levels (mEq/L) in group I and the control

	Group I n = 30			Control n = 30		
	AP	PP	UC	AP	PP	UC
mean	138.1	137.93	137.86	138.0	137.9	137.8
SD	2.2	2.10	2.00	2.3	2.3	2.4

t_1 (group I (AP) versus control (AP) = 0.2 , P > 0.05.
t_2 (group I (PP) versus control (PP) = 0.05, p > 0.05.
t_3 (group I (UC) versus control (UC) = 0.1 , P > 0.05.

Table 2: Mean serum sodium levels (mEq/L) in group II and the control.

	Group II n = 30			Control n = 30		
	AP	PP	UC	AP	PP	UC
mean	137.8	136.5	135.8	138.0	137.9	137.8
SD	2.4	2.4	2.6	2.3	2.3	2.4

t_1 (group II (AP) versus control (AP) = 0.2 , P > 0.05.
t_2 (group II (PP) versus control (PP) = 2.3 , P < 0.05.
t_3 (group II (UC) versus control (UC) = 3 , P < 0.05.

Table 3: Mean serum sodium levels (mEq/L) in group I and group II

	Group I n = 30			Group II n = 30		
	AP	PP	UC	AP	PP	UC
mean	138.1	137.93	137.86	138.8	136.5	135.8
SD	2.2	2.10	2.00	2.4	2.4	2.6

t_1 (group I (AP) versus group II (AP) = 0.3, $P > 0.05$.
t_2 (group I (PP) versus group II (PP) = 2.4, $P < 0.05$.
t_3 (group I (UC) versus group II (UC) = 3.1, $P < 0.05$.

Table 4: Comparison between antepartum and postprtum mean serum sodium levels (mEq/L) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	PP	AP	PP	AP	PP
mean	138.1	137.93	137.8	136.5	138.0	137.9
SD	2.2	2.1	2.4	2.4	2.3	2.3

t_1 (group I (AP versus PP) = 1.2 , $P > 0.05$.
t_2 (group II (AP versus PP) = 5.0 , $P < 0.05$.
t_3 (control (AP versus PP) = 0.75, $P > 0.05$.

Table 5: Comparison between antepartum andcord mean serum sodium levels (mEq/L) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	UC	AP	UC	AP	UC
mean	138.1	137.86	137.8	135.8	138.0	137.8
SD	2.2	2.0	2.4	2.6	2.3	2.4

t_1 (group I (AP versus UC) = 1.4 , P > 0.05.
t_2 (group II (AP versus UC) = 6.7 , P < 0.05.
t_3 (control (AP versus UC) = 0.96, P > 0.05.

Table 6: Correlation between maternal postpartum and umbilical cord serum sodium levels in each group.

	Group I n = 30	Group II n = 30	Control n = 30
r	0.98	0.94	0.98
P	< 0.05	< 0.05	< 0.05

Table 7: Mean antepartum serum potassium levels (mEq/L) in all the groups

	Group I n = 30	Group II n = 30	Control n = 30
Mean	5.38	5.31	5.30
SD	0.74	0.64	0.54

t_1 (group I versus control) = 0.5 , P > 0.05.
t_2 (group II versus control) = 0.1 , P > 0.05.
t_3 (group I versus group II) = 0.4 , P > 0.05.

Table 8: Mean postpartum serum potassium levels (mEq/L) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
Mean	5.30	5.26	5.35
SD	0.78	0.64	0.74

t_1 (group I versus control) = 0.25, P > 0.05.
t_2 (group II versus control) = 0.5 , P > 0.05.
t_3 (group I versus group II) = 0.2 , P > 0.05.

Table 9: Mean cord serum potassium levels (mEq/L) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
Mean	5.36	5.25	5.39
SD	0.86	0.66	0.74

t_1 (group I versus control) = 0.14 , P > 0.05.
t_2 (group II versus control) = 0.78 , P > 0.05.
t_3 (group I versus group II) = 0.55 , P > 0.05.

Table 10: Comparison between antepartum and postpartum mean serum potassium levels (mEq/L) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	PP	AP	PP	AP	PP
mean	5.38	5.30	5.31	5.26	5.30	5.35
SD	0.74	0.78	0.64	0.64	0.54	0.74

t_1 (group I (AP versus PP) = 0.98, P > 0.05.
t_2 (group II (AP versus PP) = 1.3 , P > 0.05.
t_3 (control (AP versus PP) = 0.57, P > 0.05.

Table 11: Comparison between antepartum and cord mean serum potassium levels (mEq/L) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	UC	AP	UC	AP	UC
mean	5.38	5.36	5.31	5.25	5.30	5.39
SD	0.74	0.86	0.64	0.66	0.54	0.74

t_1 (group I (AP versus UC) = 0.37, P > 0.05.
t_2 (group II (AP versus UC) = 1.6 , P > 0.05.
t_3 (control (AP versus UC) = 1 , P > 0.05.

Table 12: Correlation between maternal postpartum and umbilical cord serum potassium levels in each group..

	Group I n = 30	Group II n = 30	Control n = 30
r	0.98	1	0.95
P	< 0.05	< 0.05	< 0.05

Table 13: Mean antepartum serum urea levels (mg/dL) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
mean	24.4	24.3	23.1
SD	4.27	4.56	5.1

t_1 (group I versus control) = 1 , P > 0.05.
t_2 (group II versus control) = 0.96, P > 0.05.
t_3 (group I versus group II) = 0.1 , P > 0.05.

Table 14: Mean postpartum serum urea levels (mg/dL) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
mean	24.3	23.9	2.3
SD	4.25	4.24	5.0

t_1 (group I versus control) = 1.2 , P > 0.05.
t_2 (group II versus control) = 0.68, P > 0.05.
t_3 (group I versus group II) = 0.6 , P > 0.05.

Table 15: Mean cord serum urea levels (mg/dL) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
mean	24.1	23.8	23.16
SD	4.2	4.22	5.00

t_1 (group I versus control) = 0.8 , P > 0.05.
t_2 (group II versus control) = 0.55 , P > 0.05.
t_3 (group I versus group II) = 0.26 , P > 0.05.

Table 16: Comparison between antepartum and postpartum mean serum urea levels (mg/dL) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	PP	AP	PP	AP	PP
mean	24.4	24.3	24.3	23.9	23.1	23
SD	4.27	4.25	4.56	4.24	5.1	5.0

t_1 (group I (AP versus PP) = 0.55, P > 0.05.
t_2 (group II (AP versus PP) = 2.45, P < 0.05.
t_3 (control (AP versus PP) = 0.18, P > 0.05.

Table 17: Comparison between antepartum and cord mean serum urea levels (mg/dL) in each group

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	UC	AP	UC	AP	UC
mean	24.4	24.1	24.3	23.8	23.1	23.16
SD	4.27	4.2	4.56	4.22	5.1	5.00

t_1 (group I (AP versus UC) = 1.18 , P > 0.05.
t_2 (group II (AP versus UC) = 2.78 , p < 0.05.
t_3 (control (AP versus UC) = 0.75 , P > 0.05.

Table 18: Correlation between maternal postpartum and umbilical cord serum urea levels (mg/dL) in each group

	Group I n = 30	Group II n = 30	Control n = 30
r	0.99	0.99	1
P	< 0.05	< 0.05	< 0.05

Table 19: Mean antepartum serum creatinine levels (mg/dL) in all the groups

	Group I n = 30	Group II n = 30	Control n = 30
mean	0.81	0.86	0.82
SD	0.17	0.18	0.13

t_1 (group I versus control) = 0.25 , P > 0.05.
t_2 (group II versus control) = 0.97, P > 0.05.
t_3 (group I versus group II) = 1 , P > 0.05.

Table 20: Mean postpartum serum creatinine levels (mg/dL) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
mean	0.819	0.86	0.817
SD	0.160	0.17	0.150

t_1 (group I versus control) = 0.05 , P > 0.05.
t_2 (group II versus control) = 0.93 , P > 0.05.
t_3 (group I versus group II) = 0.84 , P > 0.05.

Table 21: Mean cord serum creatinine levels (mg/dL) in all the groups.

	Group I n = 30	Group II n = 30	Control n = 30
mean	0.82	0.85	0.818
SD	0.17	0.20	0.140

t_1 (group I versus control) = 0.05 , P > 0.05.
t_2 (group II versus control) = 0.65 , P > 0.05.
t_3 (group I versus group II) = 0.6 , P > 0.05.

Table 22: Comparison between antepartum and postpartum mean serum creatinine levels (mg/dL) in each group.

	Group I n = 30		Group II n = 30		Control n = 30	
	AP	PP	AP	PP	AP	PP
mean	0.81	0.819	0.86	0.86	0.82	0.817
SD	0.17	0.160	0.18	0.17	0.13	0.15

t_1 (group I (AP versus PP) = 1 , P > 0.05.
t_2 (group II (AP versus PP) = 1 , P > 0.05.
t_3 (control (AP versus PP) = 0.65, P > 0.05.

Table 23: Comparison between antepartum and cord mean serum creatinine levels (mg/dL) in each group.

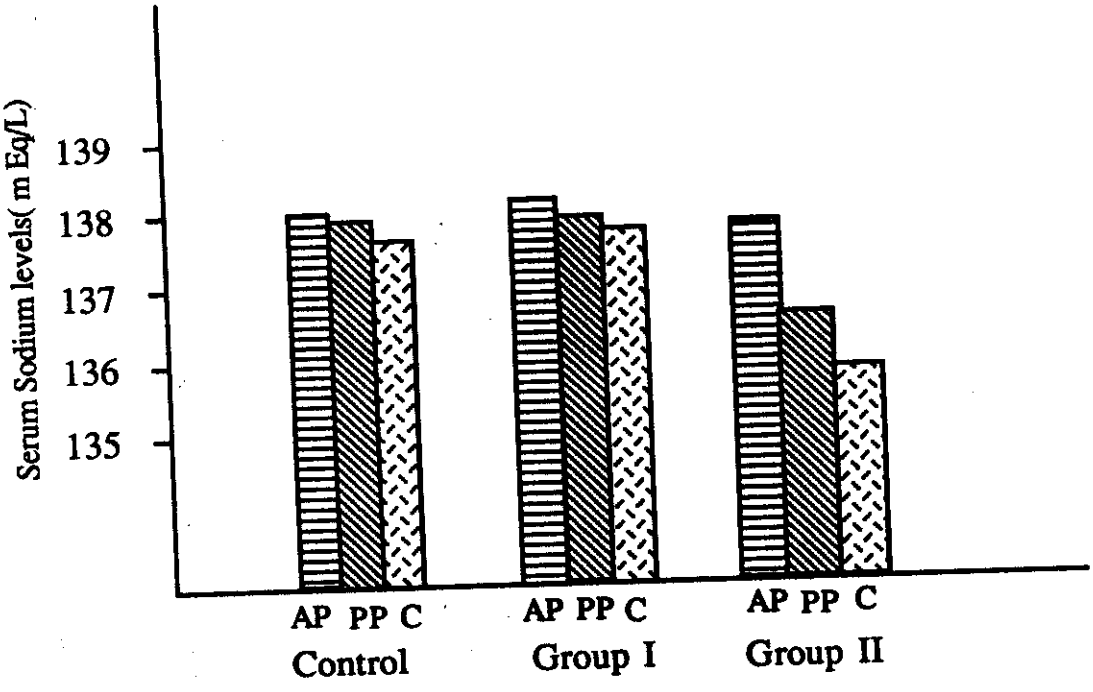
	Group I n = 30		Group II n = 30		Control n = 30	
	AP	UC	AP	UC	AP	UC
mean	0.81	0.82	0.86	0.85	0.82	0.818
SD	0.17	0.17	0.18	0.20	0.13	0.140

t_1 (group I (AP versus UC) = 1 , P > 0.05.
t_2 (group II (AP versus UC) = 1.95 , P > 0.05.
t_3 (control (AP versus UC) = 0.25 , P > 0.05.

Table 24: Correlation between maternal postpartum and umbilical cord serum creatinine levels in each group.

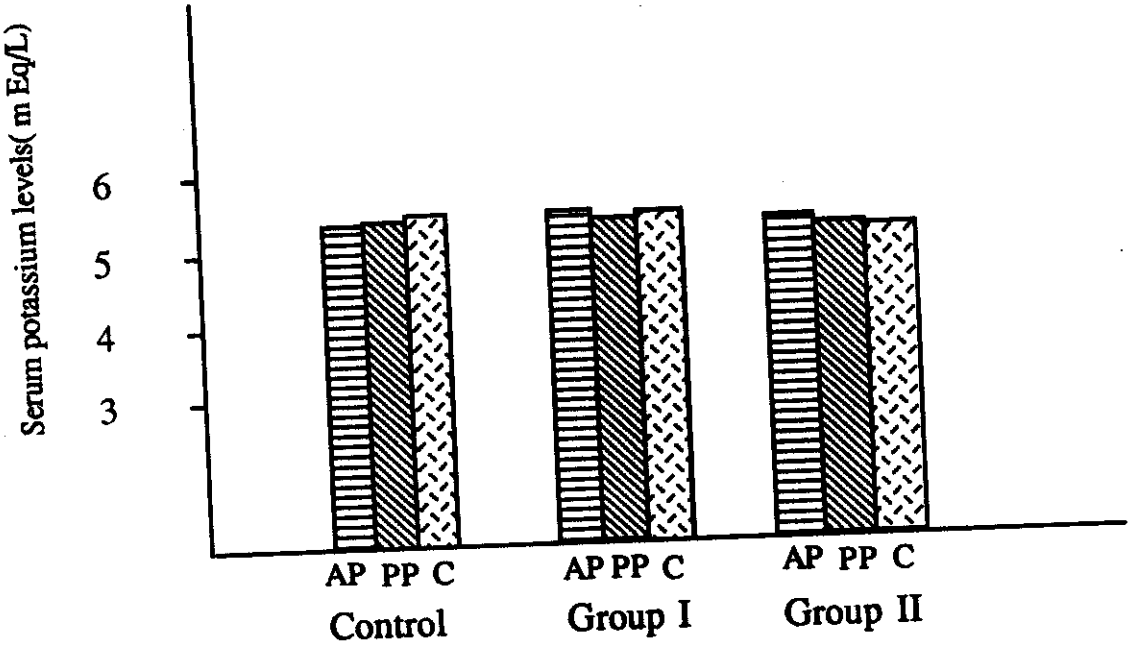
	Group I n = 30	Group II n = 30	Control n = 30
r	1	1	0.99
P	< 0.05	< 0.05	< 0.05

Fig. (1)



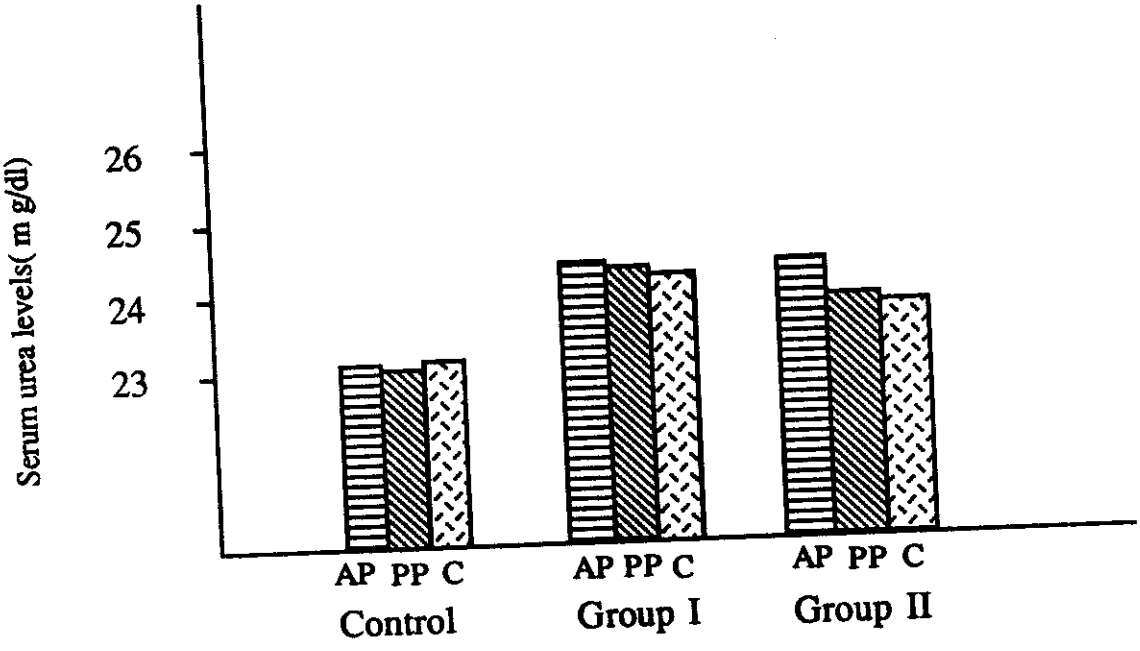
Serum sodium levels in all groups

Fig. (2)



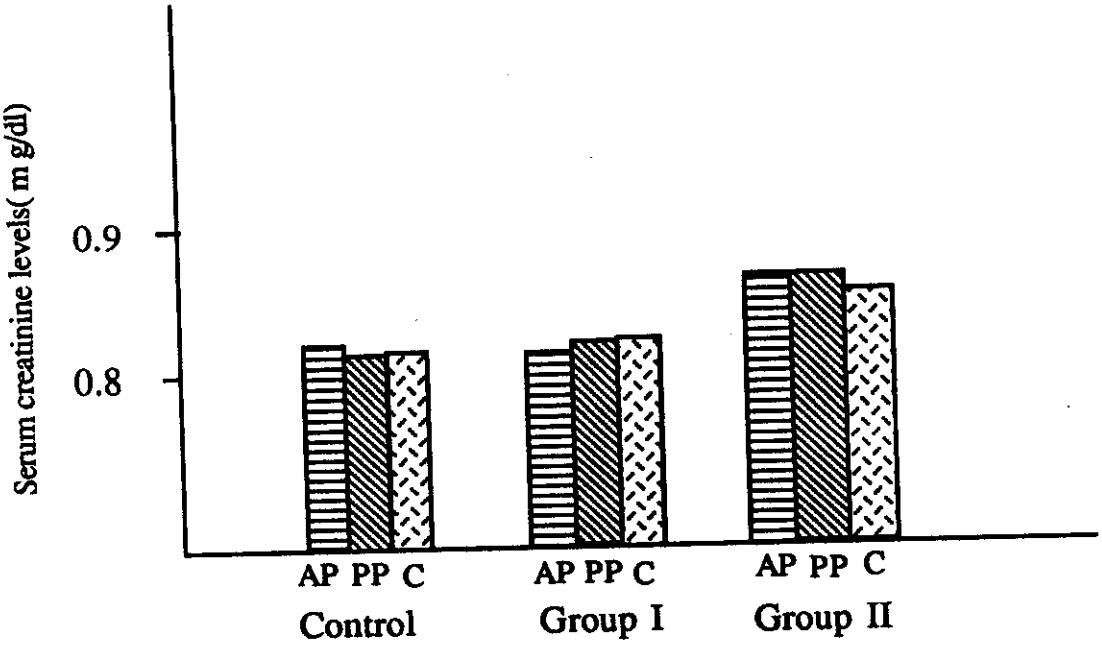
Serum potassium levels in all groups

Fig. (3)



Serum urea levels in all groups

Fig. (4)



Serum creatinine levels in all groups