RESULTS

Table (1) : **The mean and S.D. of fetal BPD between different groups of hypertensive pregnant and standard value :**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	84.27	5.17	85.3	5.59	0.74	0.46	Insig.
Pregnancy-induced (pure-preeclampsia)	10	85.4	4.99	86.2	5.81	0.33	0.75	Insig.
Pregnancy-aggrevated (superimposed preeclampsia)	10	85.5	4.86	86.9	5.43	0.61	0.55	Insig.
Chronic (coincidental) hypertension	10	81.9	5.31	82.8	5.18	0.38	0.71	Insig.

Table (1) and Fig. (1) show that the BPD was less in different groups of hypertension than the standard value and the difference was not significant (P > 0.05).

Table (2) : **The mean and S.D of fetal H.C. between different groups of hypertensive pregnant and standard value.**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	31.90	1.68	32.33	2.93	0.79	0.43	Insig.
Induced	10	32.14	1.66	32.90	1.93	0.95	0.36	Insig.
Aggrevated	10	32.3	1.60	32.93	1.87	0.81	0.43	Insig.
Chronic	10	31.06	1.74	31.15	3.09	0.10	0.92	Insig.

Table (2) and Fig. (2) show that the HC was less in different groups of hypertension than the standard value and the difference was not significant (P > 0.05).

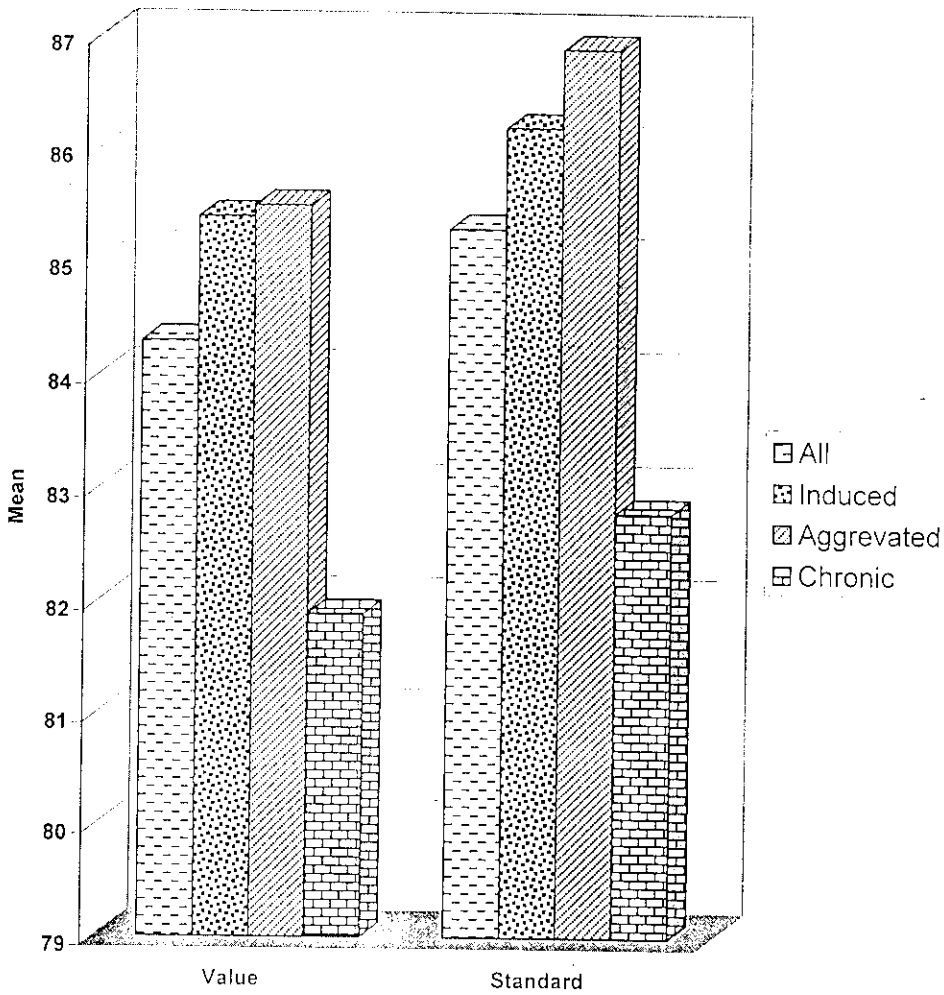

Fig. (1) : The mean of fetal BPD between different groups of hypertensive pregnants and standard value.

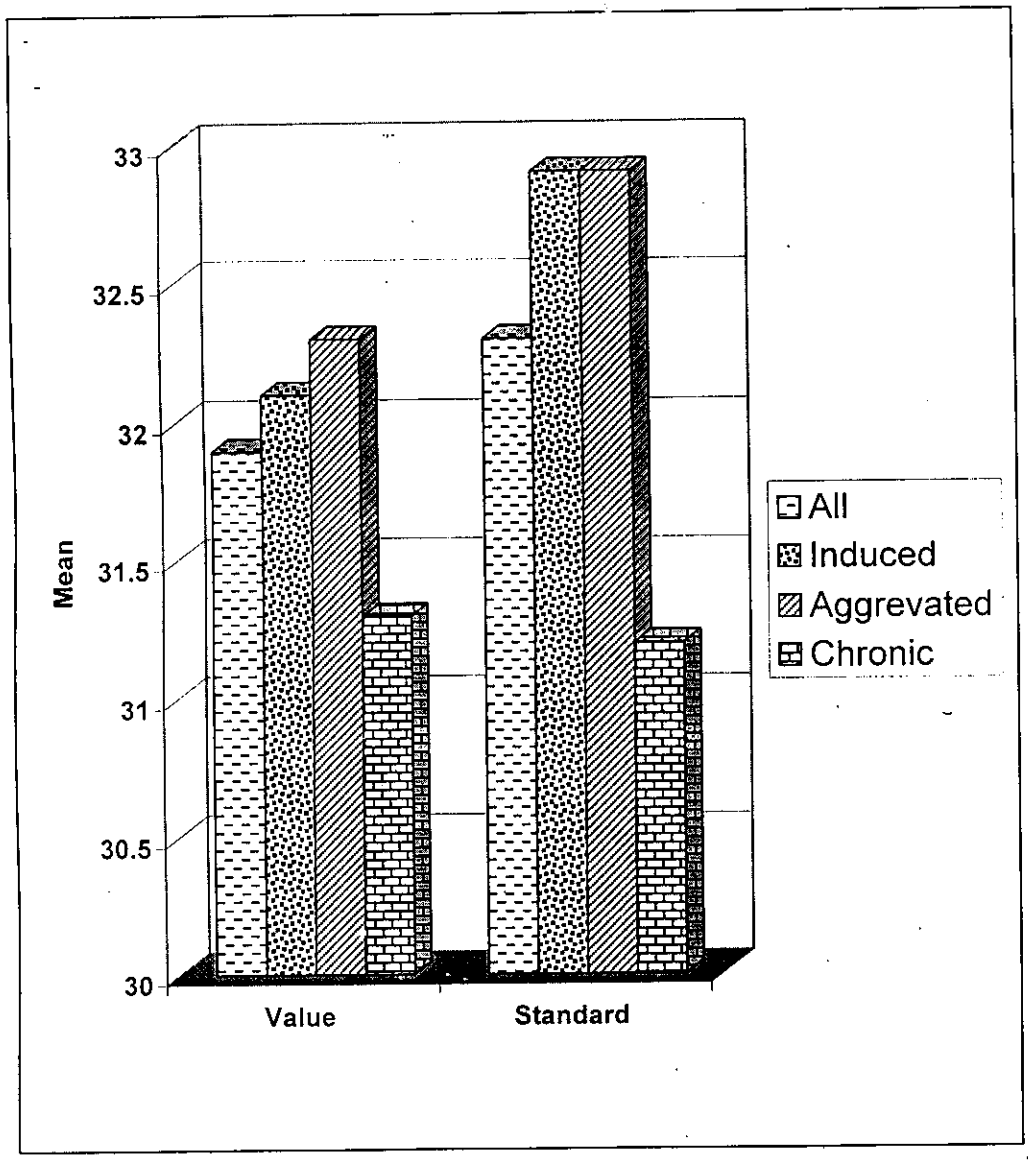

Fig. (2) : The mean of fetal HC between different groups of hypertensive pregnants and standard value

Table (3) : The mean and S.D of fetal A.C. between different groups of hypertensive pregnant and standard value.

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	29.5	2.74	31.32	3.00	2.45	0.02	Sig.
Induced	10	29.83	2.29	31.72	3.01	2.73	0.01	Sig.
Aggrevated	10	29.72	2.28	32.27	3.16	2.92	0.005	Sig.
Chronic	10	28.95	2.24	29.96	2.60	0.93	0.92	Insig.

Table (3) and Fig.(3) show that the AC was less in different groups of hypertension than the standard value and the difference was significant ($P < 0.05$) while in chronic group it is not significant ($P > 0.05$).

Table (4) : The mean and S.D of FL between different groups of hypertensive pregnant and standard value.

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	66.2	4.29	67.8	4.71	1.38	0.17	Insig.
Induced	10	67.0	4.40	68.5	4.79	0.73	0.48	Insig.
Aggrevated	10	67.1	4.28	69.2	4.76	1.04	0.31	Insig.
Chronic	10	64.5	4.12	65.7	4.27	0.64	0.53	Insig.

Table (4) and Fig. (4) show that the FL was less in different groups of hypertension than the standard value and the difference was not significant ($P > 0.05$).

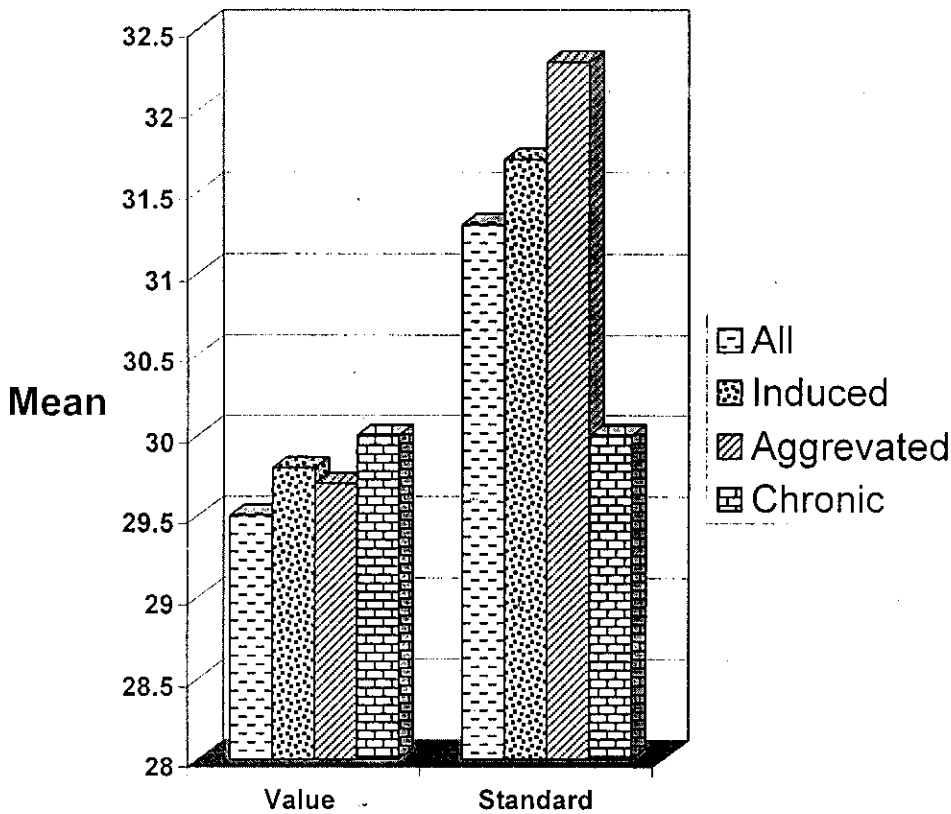

Fig. (3) : The mean of fetal AC between different groups of hypertensive pregnants and standard value

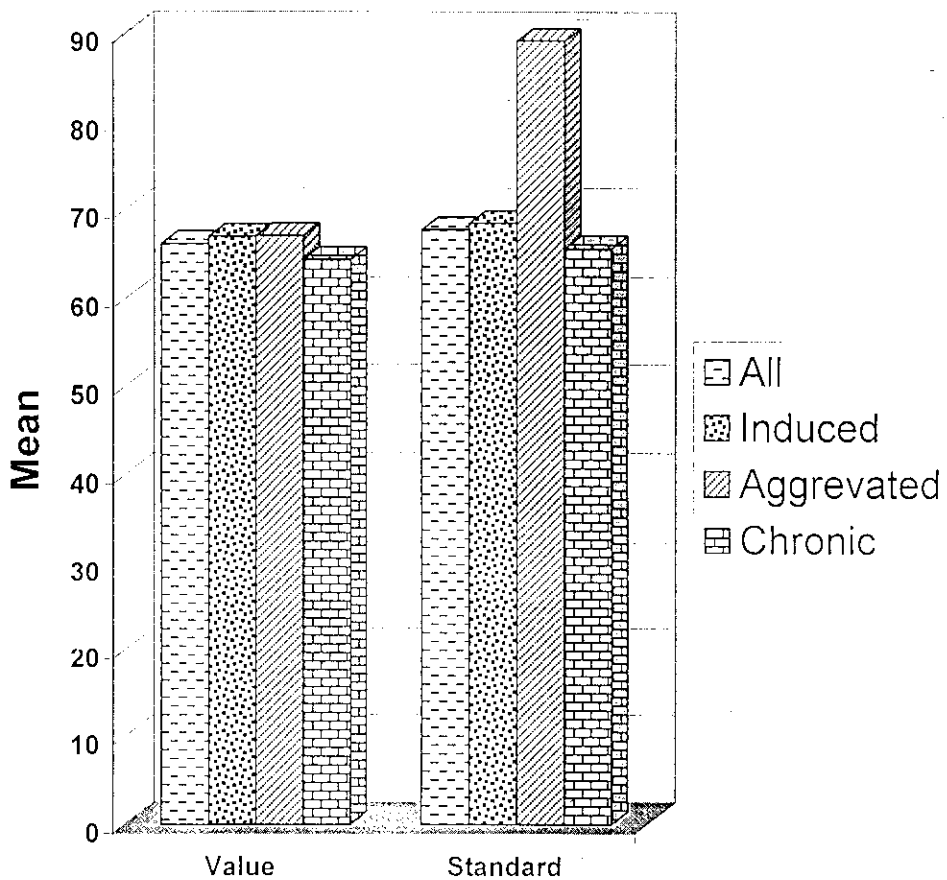

Fig. (4) : The mean of fetal FL between different groups of hypertensive pregnants and standard value.

Table (5) : **The mean and S.D of Hc/Ac ratio between different groups of hypertensive pregnant and standard value.**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	1.09	0.7	1.06	1.73	0.92	0.34	Insig.
Induced	10	1.10	0.09	1.04	0.03	0.35	0.73	Insig.
Aggrevated	10	1.12	0.07	1.08	2.99	0.95	0.36	Insig.
Chronic	10	1.07	0.03	1.06	0.03	1.47	0.16	Insig.

Table (5) and Fig. (5) show that the Hc/Ac was higher in different groups of hypertension than the standard value and the difference was not significant ($P > 0.05$).

Table (6) : **The mean and S.D of A.F.I. between different groups of hypertensive pregnant and standard value.**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	7.96	2.96	8-18	0	2.85	0.006	Sig.
Induced	10	7.60	2.69	8-18	0	2.12	0.048	Sig.
Aggrevated	10	7.50	3.06	8-18	0	2.17	0.044	Sig.
Chronic	10	8.78	1.43	8-18	0	0.70	0.49	Insig.

Table (6) shows that the AFI was less in different groups of hypertension. Than the standard value and the difference was significant ($P < 0.05$), while in chronic group the AFI is within the normal range and the difference was non significant ($P > 0.05$).

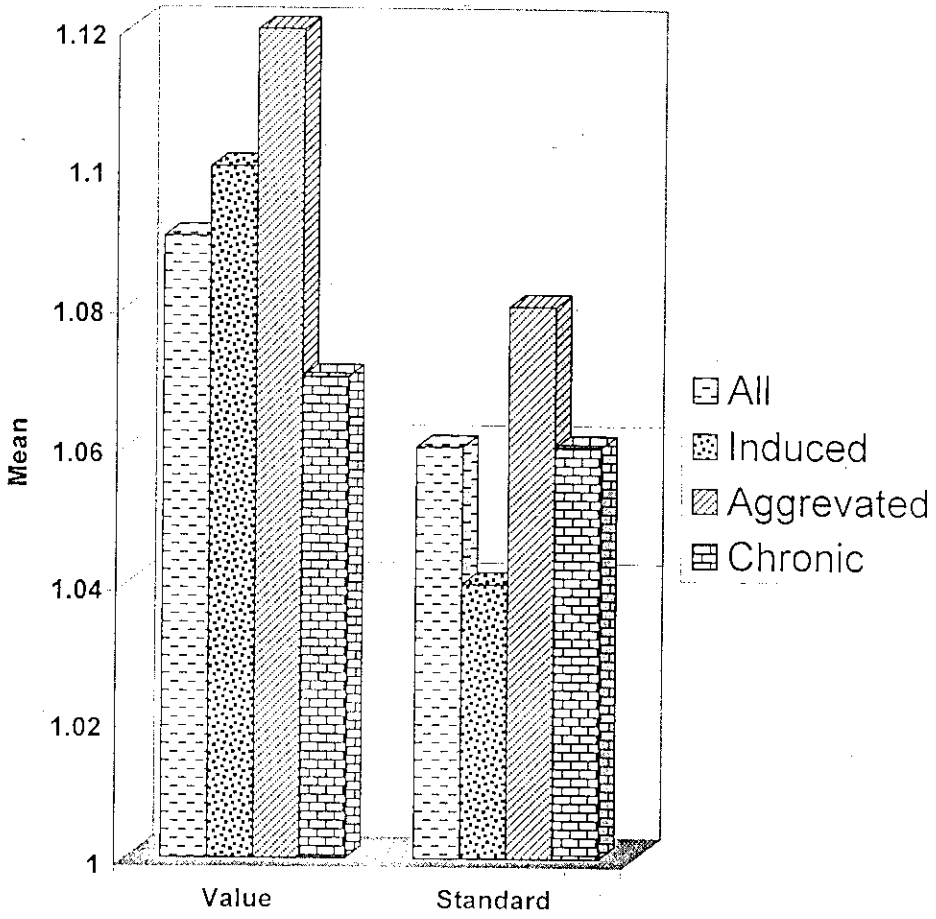

Fig. (5) : The mean of HC/AC ratio between different groups of hypertensive pregnants and standard value.

Table (7) : **The mean and S.D of EFW between different groups of hypertensive pregnant and standard value.**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	30	2351	514	2614	565	2.01	0.043	Sig.
Induced	10	2465	361	2708	592	2.05	0.031	Sig.
Aggrevated	10	2307	561	2770	567	1.98	0.053	Sig.
Chronic	10	2185	458	2365	491	0.85	0.41	Insig.

Table (7) and Fig. (6) show that the estimated fetal weight (EFW) was less in different groups of hypertension than the standard value and the difference was significant ($P < 0.05$), while in chronic group it was not significant ($P > 0.05$).

Table (8) : **The mean and S.D of biophysical profile scoring between different groups of hypertensive pregnant and standard value.**

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	28	9.20	1.37	10	0	2.01	0.045	Sig.
Induced	9	8.89	1.45	10	0	2.42	0.035	Sig.
Aggrevated	9	8.67	1.73	10	0	2.43	0.034	Sig.
Chronic	10	10.0	0.0	10	0	0	0	١٠٠ Sig.

Table (8) and Fig. (7) show that the biophysical profile scoring was less in different groups of hypertension than the standard value and the difference was significant ($P < 0.05$), except in chronic group which having normal value ($P = 0$).

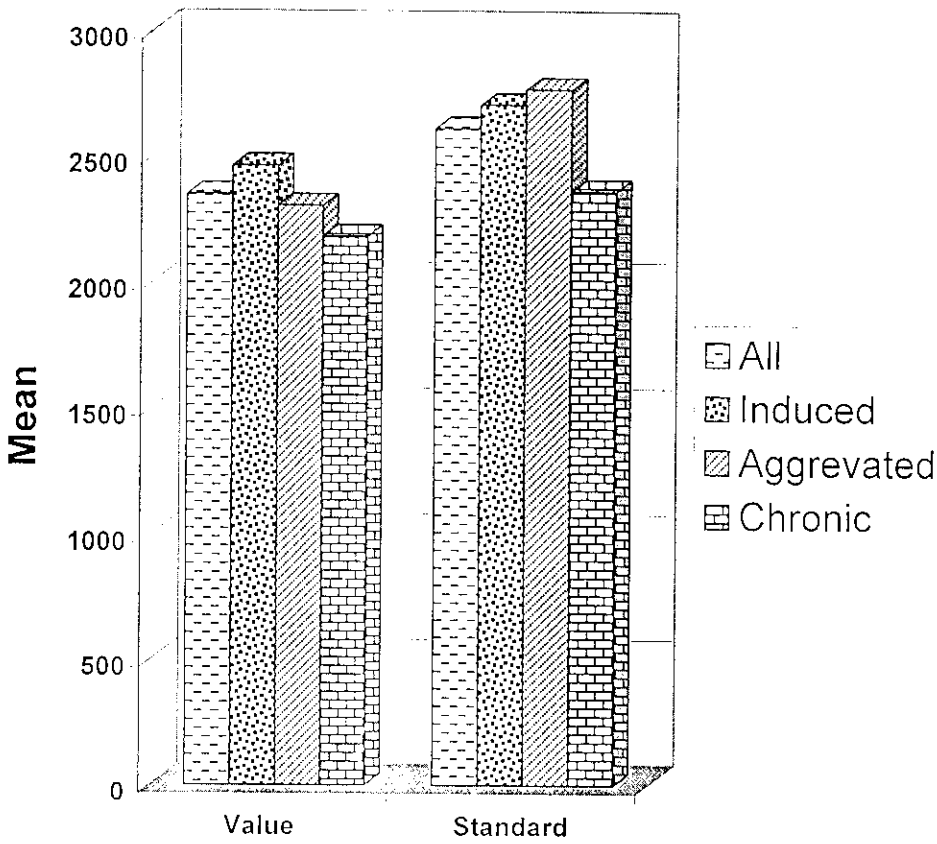

Fig. (6) : The mean of EFW between different groups of hypertensive pregnants and standard value.

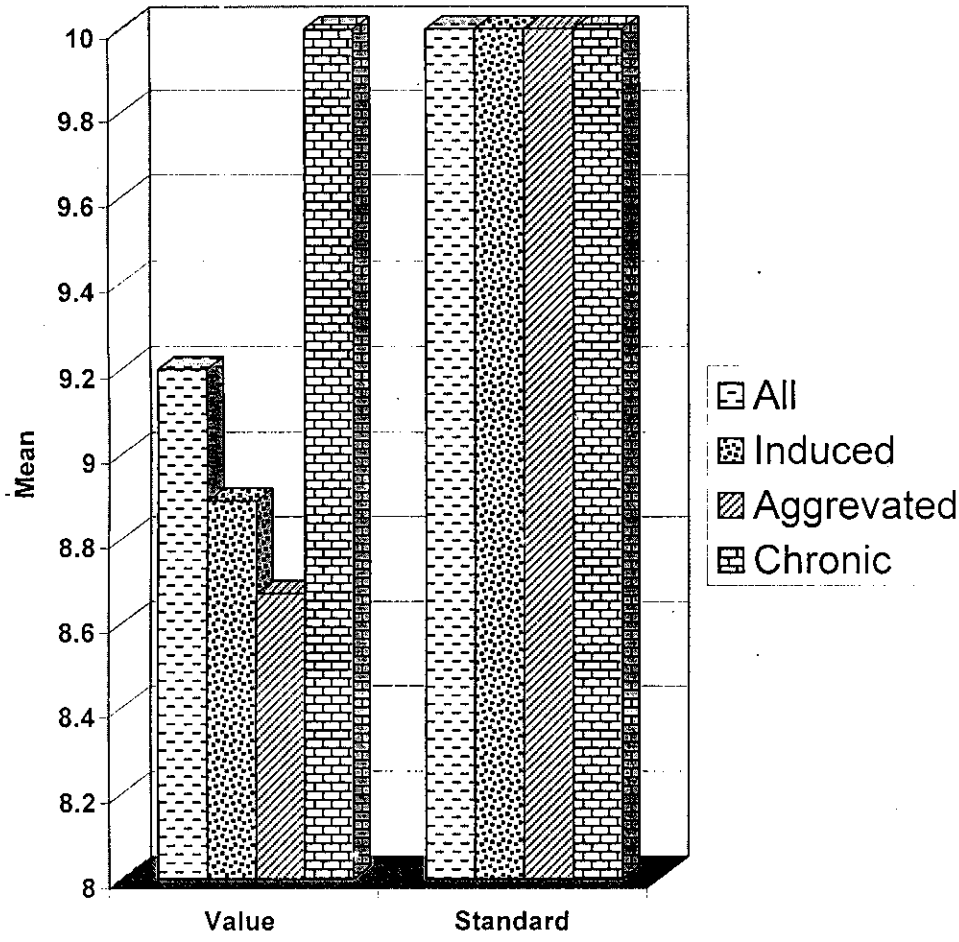

Fig. (7) : The mean of biophysical profile scoring between different groups of hypertensive pregnants and standard value.

Table (9) : The mean and S.D of corrected S/D ratio between different groups of hypertensive pregnant and standard value.

Type	No.	Observed value		Standard value		T-test	P	Comment
		Mean	SD	Mean	SD			
All types	28	3.75	0.63	< 3	0	2.28	0.028	Sig.
Induced	9	3.92	0.93	< 3	0	3.16	0.005	Sig.
Aggrevated	9	3.68	0.46	< 3	0	4.55	0.001	Sig.
Chronic	10	2.48	0.24	< 3	0	6.46	0.000	Sig.

Table (9) shows that the corrected S/D ratio was higher in different groups of hypertension than the standard value (while chronic group is within the normal range) and the difference was significant ($P < 0.05$).

Table (10) : Correlation between the fetal weight and placental thickness in the different groups.

Type	No.	r.	p.	Comment
All	30	+ 0.74	0.02	Significant
Induced	10	+ 0.66	0.04	Significant
Aggrevated	10	+ 0.65	0.045	Significant
Chronic	10	+ 0.60	0.06	Significant

Table (10) shows that there is a significant positive correlation between fetal weight and placental thickness in different hypertensive groups ($P < 0.05$).

Table (11) : **Correlation between the fetal weight and placental grading in the different groups.**

Type	No.	r.	p.	Comment
All	30	- 0.43	0.42	Insignificant
Induced	10	- 0.25	0.50	Insignificant
Aggrevated	10	- 0.44	0.20	Insignificant
Chronic	10	- 0.59	0.30	Insignificant

Table (11) shows that there is an insignificant negative correlation between fetal weight and placental grading in different hypertensive groups ($P > 0.05$).

Table (12) : **Correlation between the fetal weight and corrected S/D ratio in the different groups.**

Type	No.	r.	p.	Comment
All	28	- 0.64	0.046	Significant
Induced	9	- 0.63	0.047	Significant
Aggrevated	9	- 0.69	0.014	Significant
Chronic	10	- 0.63	0.047	Significant

Table (12) shows that there is a significant negative correlation between fetal weight and corrected S/D ratio in different hypertensive groups ($P < 0.05$).

Table (13) : Correlation between the fetal weight and A.F.I. in the different groups.

Type	No.	r.	p.	Comment
All	30	+ 0.27	0.16	Insignificant
Induced	10	+ 0.15	0.67	Insignificant
Aggrevated	10	+ 0.06	0.86	Insignificant
Chronic	10	+ 0.09	0.7	Insignificant

Table (13) shows that there is an insignificant positive correlation between fetal weight and AFI in different hypertensive groups ($P > 0.05$)

Table (14) : Correlation between the fetal weight and biophysical profile in the different groups.

Type	No.	r.	p.	Comment
All	28	+ 0.003	0.99	Insignificant
Induced	9	+ 0.06	0.87	Insignificant
Aggrevated	9	+ 0.16	0.69	Insignificant
Chronic	10	-	-	-

Table (14) shows that there is an insignificant positive correlation between fetal weight and biophysical profile in different hypertensive groups ($P > 0.05$).

Table (15) : **Correlation between the corrected S/D ratio and placental grading in the different groups.**

Type	No.	r.	p.	Comment
All	28	+ 0.65	0.045	Significant
Induced	9	+ 0.76	0.014	Significant
Aggrevated	9	+ 0.82	0.001	Significant
Chronic	10	+ 0.66	0.04	Significant

Table (15) shows that there is a significant positive correlation between corrected S/D ratio and placental grading in different hypertensive groups ($P < 0.05$).

Table (16) : **Correlation between the corrected S/D ratio and placental thickness in the different groups.**

Type	No.	r.	p.	Comment
All	28	- 0.83	0.000	Significant
Induced	9	- 0.95	0.000	Significant
Aggrevated	9	- 0.83	0.01	Significant
Chronic	10	- 0.72	0.02	Significant

Table (16) shows that there is a significant negative correlation between corrected S/D ratio and placental thickness in different hypertensive groups ($P < 0.05$).

Table (17) : Correlation between the biophysical profile scoring and placental grading in the different groups.

Type	No.	r.	p.	Comment
All	28	- 0.43	0.02	Significant
Induced	9	- 0.57	0.01	Significant
Aggrevated	9	- 0.43	0.04	Significant
Chronic	10	-	-	-

Table (17) shows that there is a significant negative correlation between biophysical profile and placental grading in different hypertensive groups ($P < 0.05$).

Table (18) : Correlation between the biophysical profile scoring and placental thickness in the different groups.

Type	No.	r.	p.	Comment
All	28	+ 0.85	0.000	Significant
Induced	9	+ 0.88	0.002	Significant
Aggrevated	9	+ 0.87	0.003	Significant
Chronic	10	-	-	-

Table (18) shows the there is a significant positive correlation between biophysical profile and placental thickness indifferent hypertensive groups ($P < 0.05$).

Table (19) : **Descriptive statistics of placental abruption in the different groups.**

Type	No.	%
Standard :		
Present	-	-
Absent	-	100%
All hypertensive		
Present	4	13.3%
Absent	26	86.7%
X^2	4.29	
P	0.14	insignificant
Pregnancy-induced		
Present	3	30%
Absent	7	70%
X^2	3.53	
P	0.06	insignificant
Pregnancy-aggrevated :		
Present	1	10%
Absent	9	90%
X^2	1.05	
P	0.30	insignificant
Chronic hypertension :		
Present	-	-
Absent	10	100%
X^2	0	
P	0	

Table (19) and Fig. (8) show that there is an insignificant incidence of placental abruption in the different groups of hypertension ($P > 0.05$), while in chronic type there is no placnetal abruption.

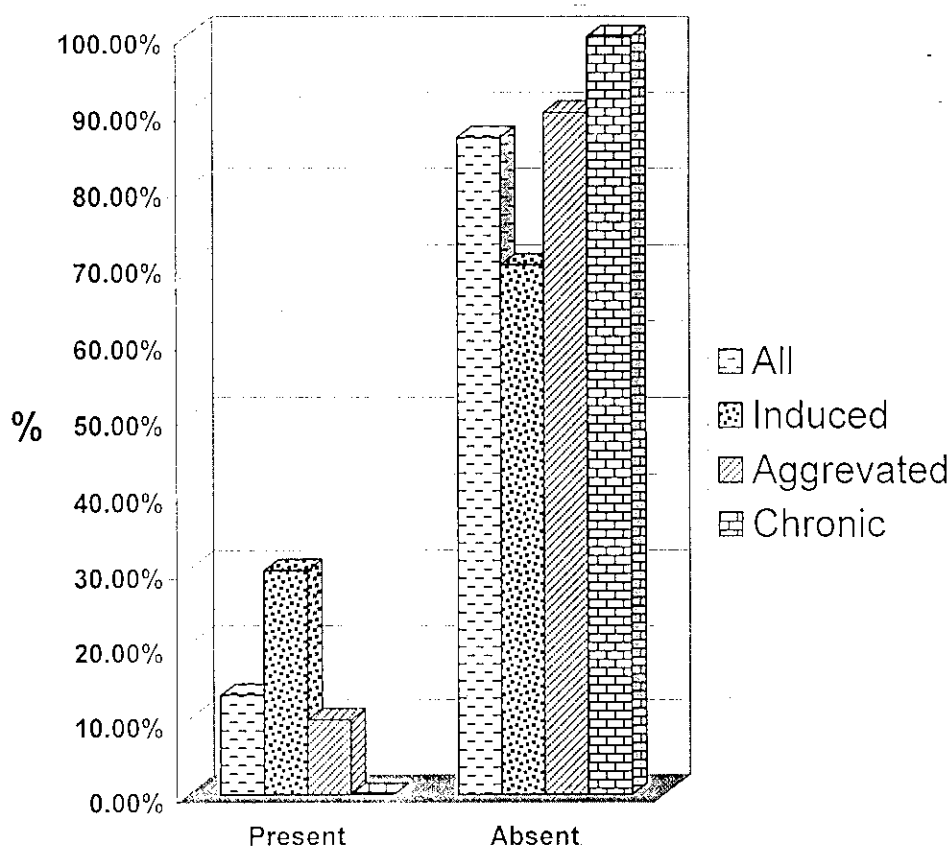

Fig. (8) : Descriptive statistics of placental abruption in the different groups.

Table (20) : **Descriptive statistics of placental grading in the different groups.**

Type		No.	%
Standard	Range	(0 – III)	
All hypertensive	Range	(II – III)	
	0	-	
	I	-	
	II	11	36.6%
	III	19	63.4%
	X2	2.59	
	P	0.043	significant
Pregnancy-induced	Range	(II - III)	
	0	-	
	I	-	
	II	1	10%
	III	9	90%
	X2	2.67	
	P	0.04	Significant
Pregnancy-Aggrevated	Range	(II - III)	
	0	-	
	I	-	
	II	2	20%
	III	8	80%
	X2	1.49	
	P	0.048	Significant
Chronic hypertension	Range	(II – (III)	
	0	-	
	I	-	
	II	8	80%
	III	2	20%
	X2	0.31	
	P	0.86	Insignificant

Table (20) shows that there is pre dominance of grade III in pregnancy-induced and pregnancy-aggrevated groups, about 90% and 80% respectively (significant $P < 0.05$) while in chronic group, there is pre dominance of grade II,80% (insignificant $P > 0.05$).

Table (21) : **Descriptive statistics of placental degeneration in the different groups.**

Type	No.	%
Standard :		
Present	-	-
Absent	–	100%
All hypertensive :		
Present	8	26.7%
Absent	2	73.3%
X^2	9.23	
P	0.002	Significant
Pregnancy-induced :		
Present	4	40%
Absent	6	60%
X^2	5.0	
P	0.03	Significant
Pregnancy-aggrevated :		
Present	4	40%
Absent	6	60%
X^2	5.0	
P	0.03	Significant
Chronic hypertension :		
Present	-	-
Absent	10	100%
X^2	0	
P	0	-

Table (21) and Fig. (9) shows that there is a significant incidence of placental degeneration in the different groups of hypertension ($P < 0.05$) while in chronic group there is no degeneration.

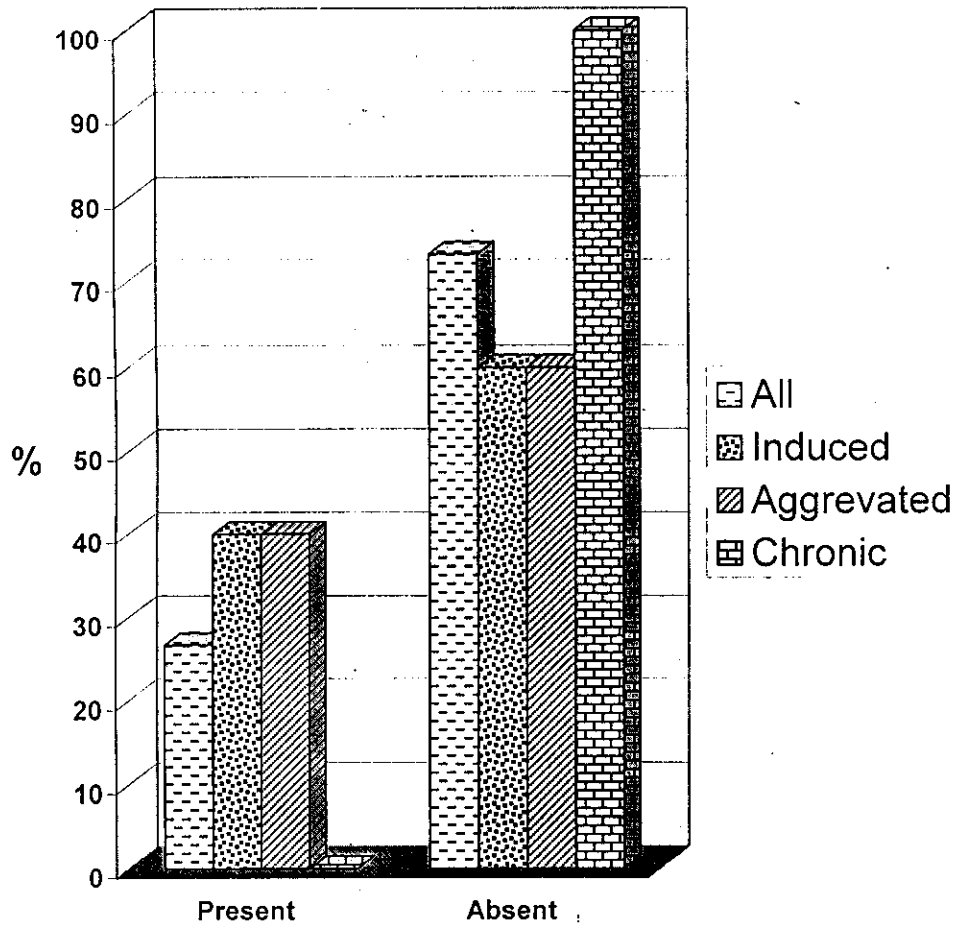

Fig. (9) : Placental degeneration in different groups of hypertensive pregnants.

Table (22) : Relationship between biophysical profile and placental degeneration in the different groups.

Degeneration / Biophysical profile	Present		Absent		Total	
	No.	%	No.	%	No.	%
All						
6	3	57.1%	-	-	3	10.72%
8	4	42.8%	-	-	4	14.28%
10	-	-	21	100%	21	75%
Total	7	21		28		100%
Test	$X^2 = 21.03$		P = 0.003		Significant	
Induced						
6	1	25%	-	-	1	11.11%
8	3	75%	-	-	3	33.33%
10	-	-	5	100%	5	55.55%
Total	4	44.4%	5	55.6%	9	100%
Test	$X^2 = 10.0$		P = 0.007		Significant	
Aggrevated						
6	2	66.6%	-	-	2	25%
8	1	33.4%	-	-	1	12.5%
10	-	-	6	100%	6	62.5%
Total	3	33.4%	6	66.6%	9	100%
Test	$X^2 = 10.0$		P = 0.007		Significant	
Chronic						
6	-	-	-	-	-	-
8	-	-	-	-	-	-
10	-	-	10	100%	10	100%
Total	-	-	10	100%	10	100%
Test	$X^2 = 0$		P = 0			

Table (22) shows that there is an increased incidence of placental degeneration with more lowering of biophysical profile scoring in different hypertensive groups (significant $P < 0.05$), while in chronic group, all cases are with scoring 10 and shows no degeneration.