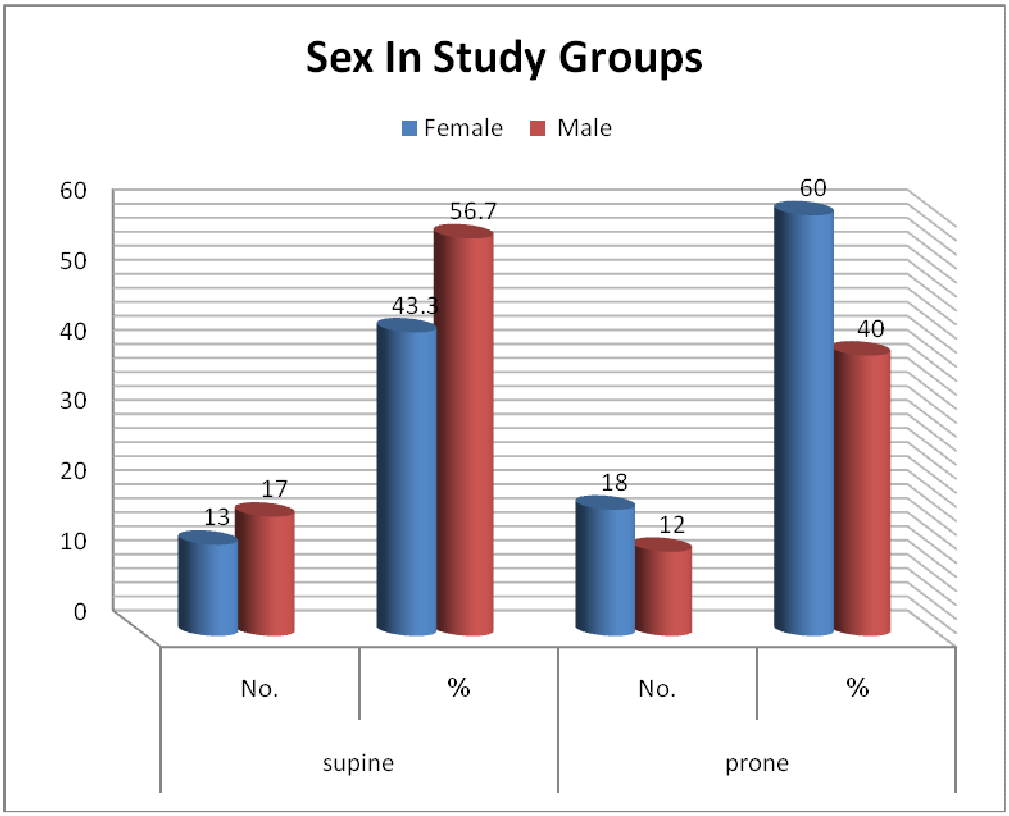
RESULTS

Patients' characters and ***stones' characters*** of both groups A&B were tabulated in tables (1-9) and presented in figures (78- 86).

Table (1): Sex of the patients in supine and prone groups.

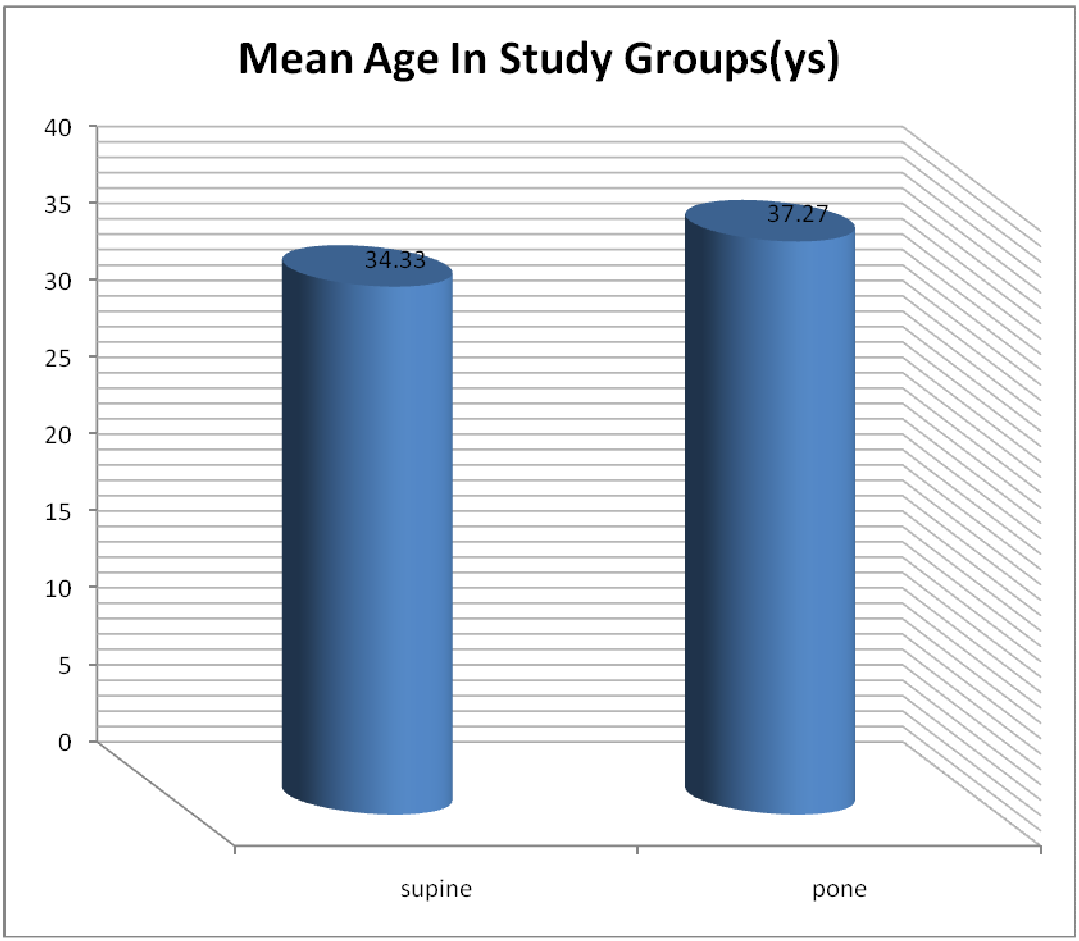
	Supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Female	13	43.3	18	60	31	51.7	1.1	>0.05
Male	17	56.7	12	40	29	48.3		
Total	30	100	30	100	60	100		



(Fig. 78): Sex in study groups

Table (2): Age of the patients in supine and prone groups.

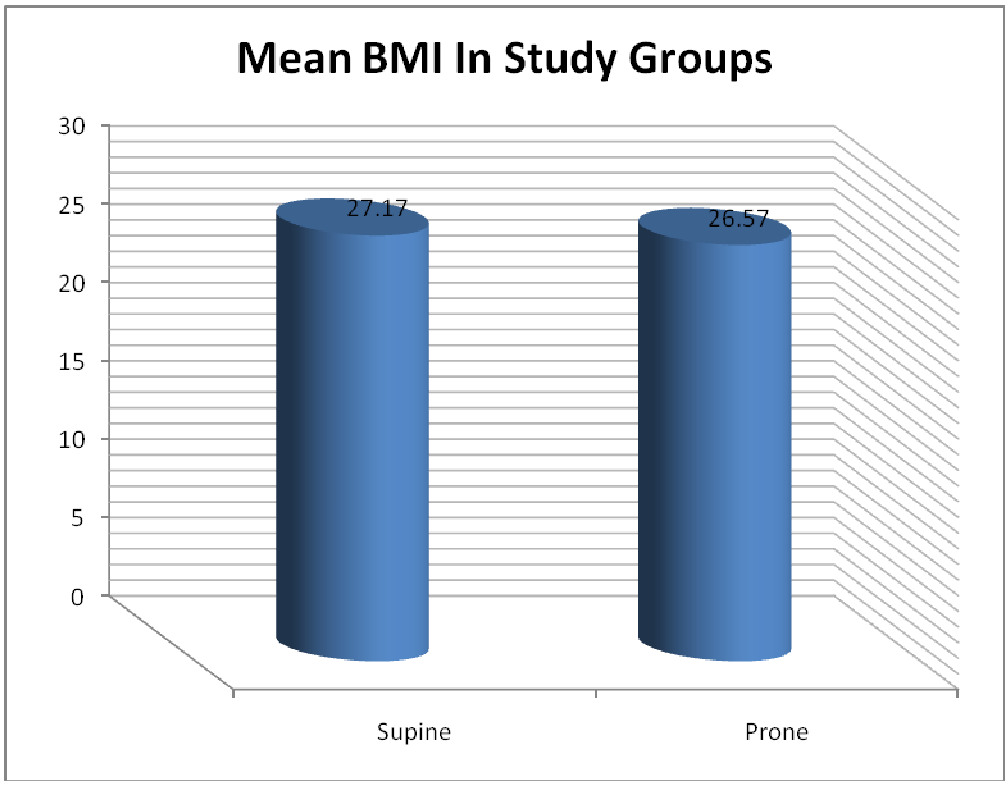
	N	Mean(ys)	Std. Deviation	t	p
Supine	30	34.33	11.403	0.9	>0.05
Prone	30	37.27	13.804		



(Fig. 79): Mean age in the study groups.

Table (3): BMI of the patients in supine and prone groups.

	N	Mean(kg/sq.m)	Std. Deviation	t	p
Supine	30	27.1700	4.23199	0.5	>0.05
Prone	30	26.5733	4.28324		

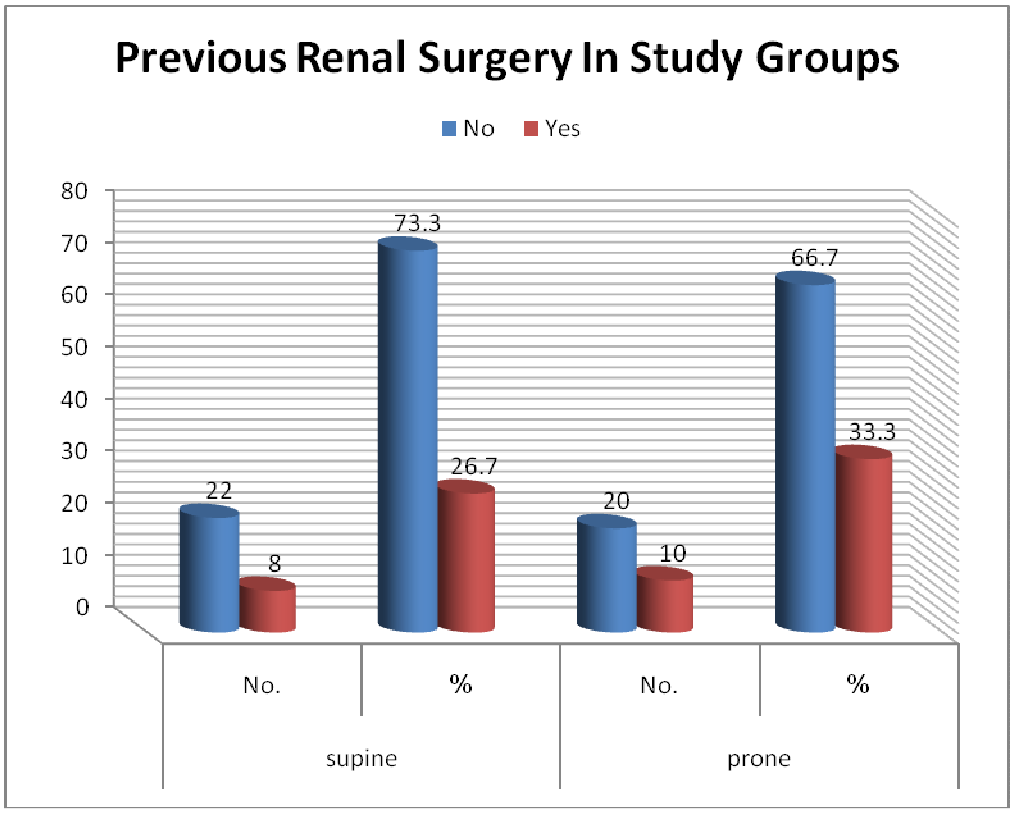


(Fig. 80): Mean BMI in the study groups

(4 cases of supine group and 2 cases of prone group were morbid obese)

Table (4): Previous renal surgery of the patients in supine and prone groups.

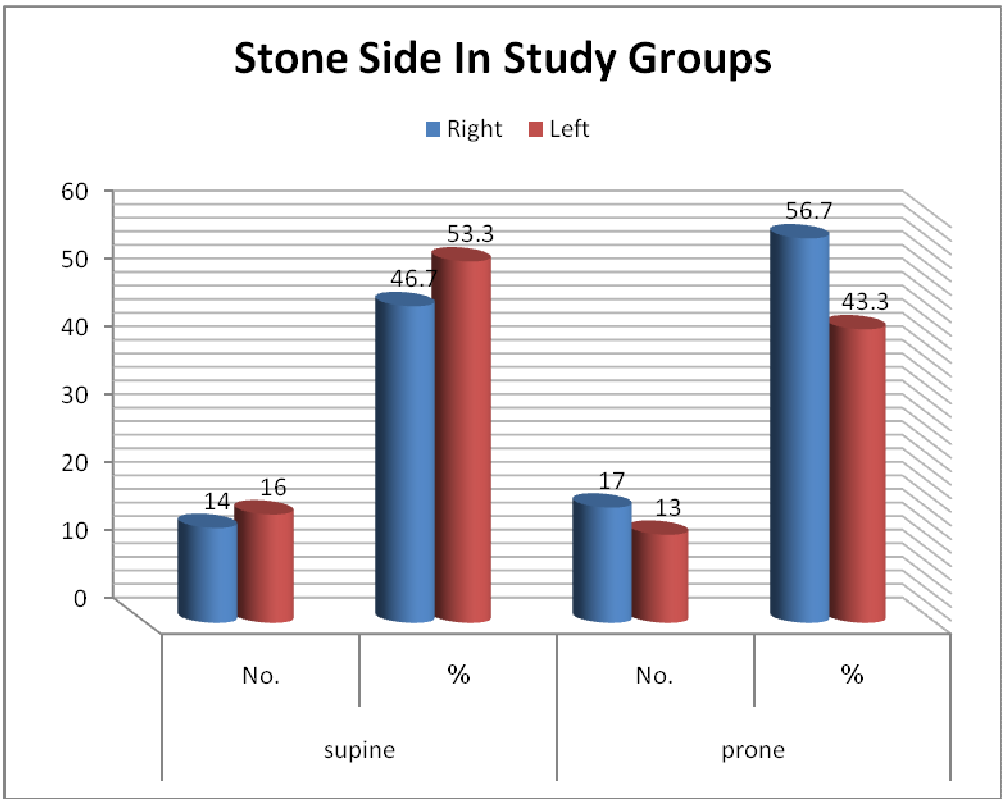
	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
No	22	73.3	20	66.7	42	70	0.3	>0.05
Yes	8	26.7	10	33.3	18	30		
Total	30	100	30	100	60	100		



(Fig. 81): Previous renal surgery in study groups

Table (5): Stone side in the supine and prone groups.

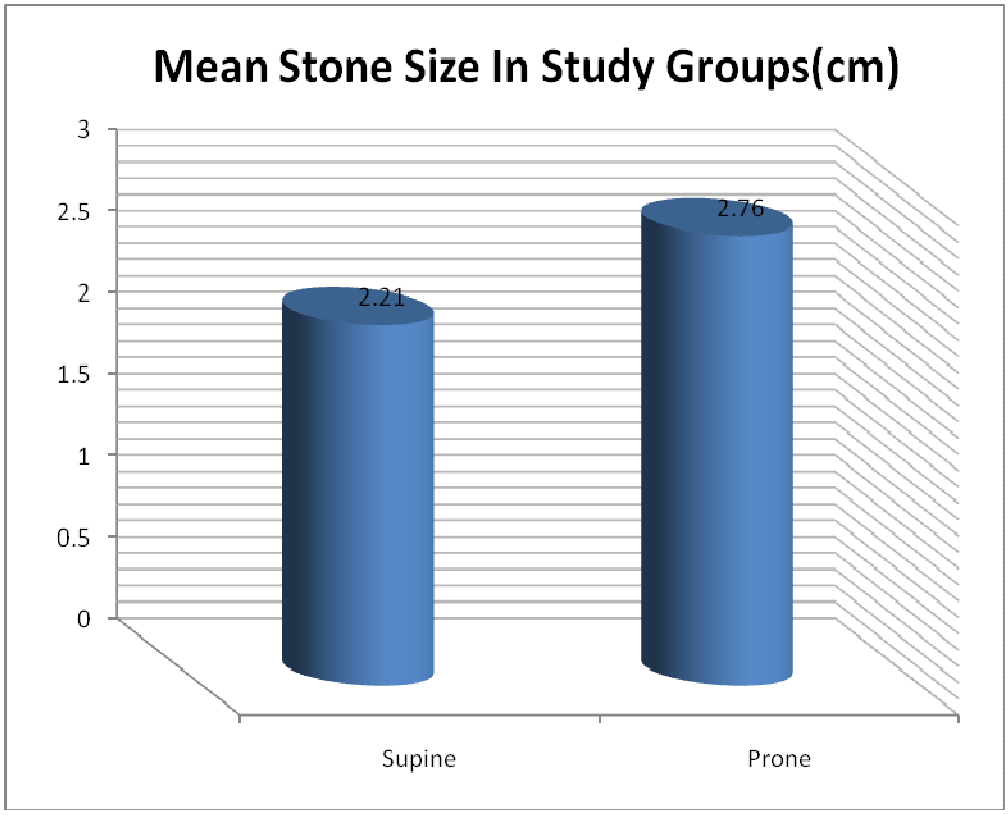
	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Right	14	46.7	17	56.7	31	51.7	0.3	>0.05
Left	16	53.3	13	43.3	29	48.3		
Total	30	100	30	100	60	100		



(Fig. 82): Side of the stone in the study groups

Table (6): Stone size of the supine and prone groups.

	N	Mean(cm)	Std. Deviation	t	p
Supine	57	2.2175	1.20225	2.8	<0.05
Prone	63	2.7635	0.84611		

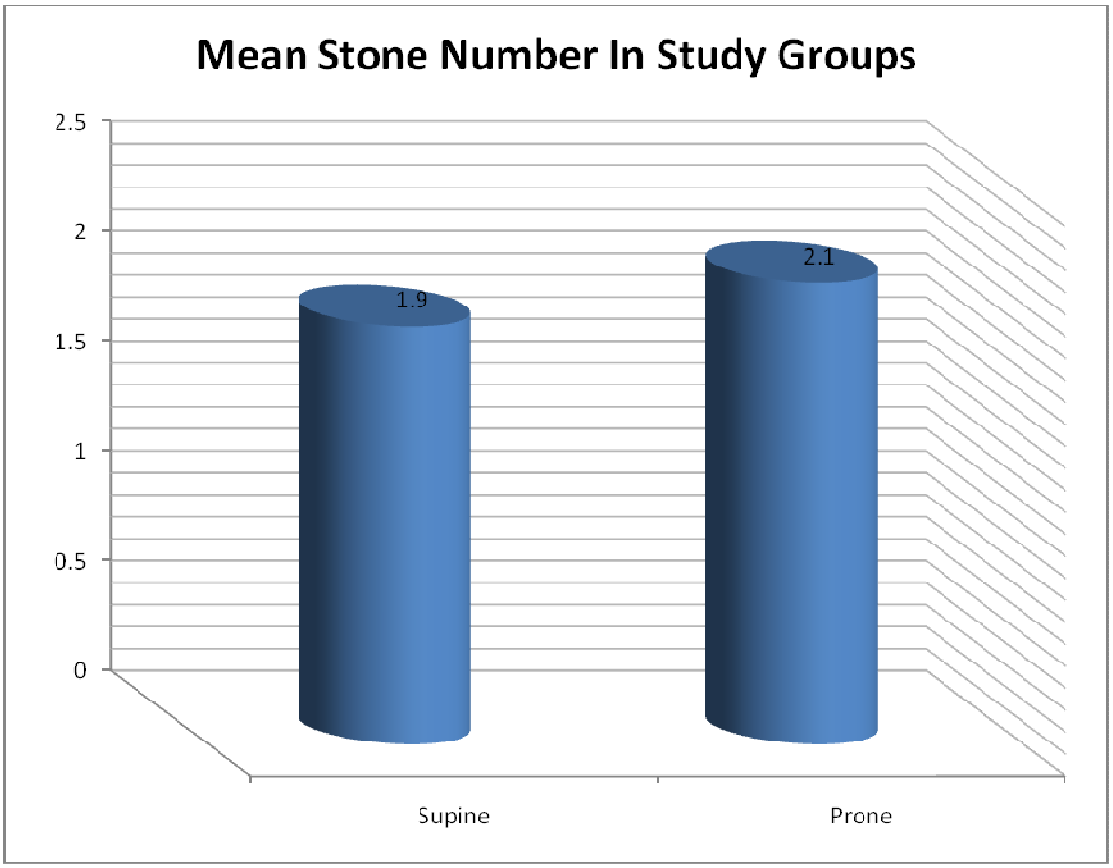


(Fig. 83): Mean size of the stone in the study groups.

(2cases in prone group and 1 case in supine group were staghorn stone)

Table (7): Stone number of the supine and prone groups.

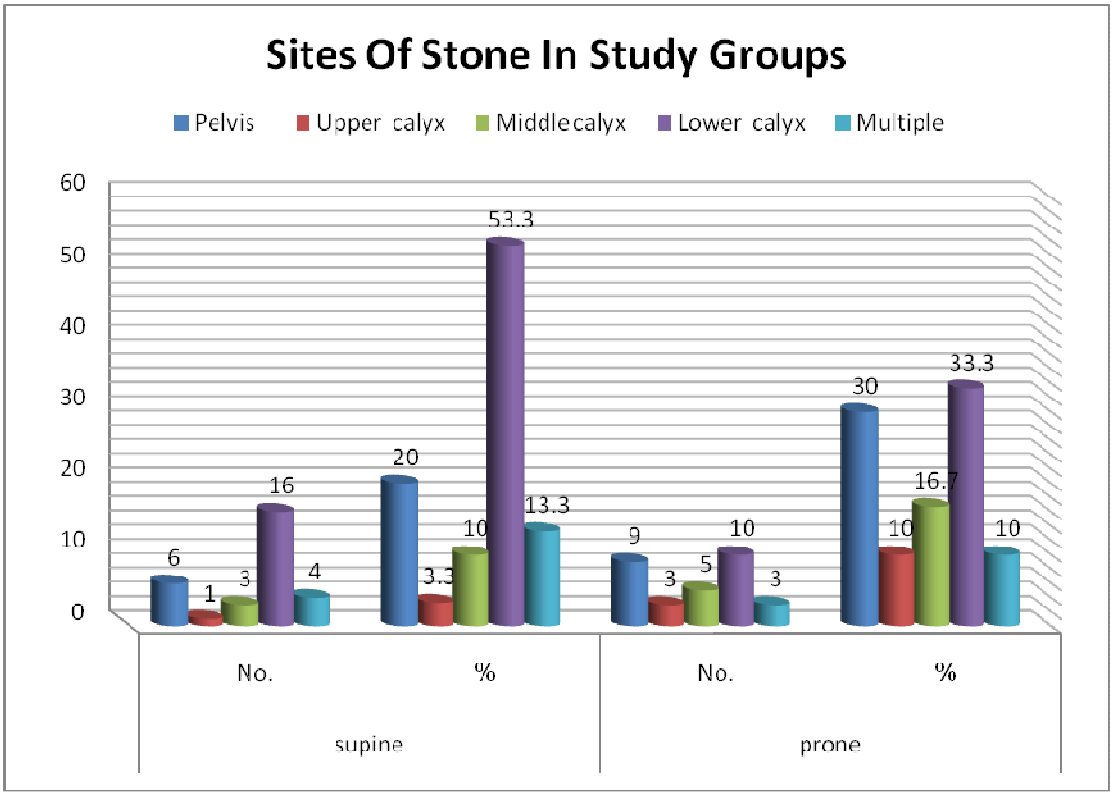
	N	Mean	Std. Deviation	t	p
Supine	30	1.9	2.234	0.2	>0.05
Prone	30	2.1	1.322		



(Fig. 84): Mean number of stones in the study groups.

Table (8): Stone site of the supine and prone groups. …..pelvis
…..upper calyx
….middle calyx
….lower calyx
…..multiple

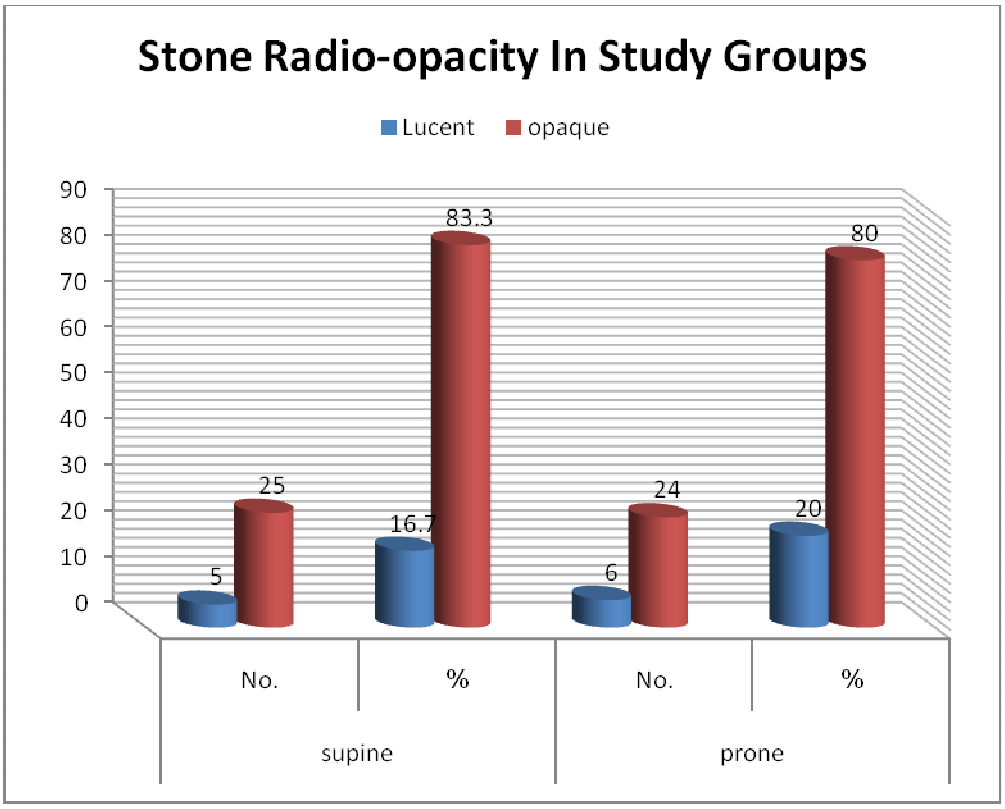
	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Pelvis	6	20	9	30	15	25	3.6	>0.05
Upper calyx	1	3.3	3	10	4	6.7		
Middle calyx	3	10	5	16.7	8	13.3		
Lower calyx	16	53.3	10	33.3	26	43.3		
Multiple	4	13.3	3	10	7	11.7		
Total	30	100	30	100	60	100		



(Fig. 85): Sites of the stones in the study groups.

Table (9): Stone radio-opacity of the supine and prone groups.

	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Lucent	5	16.7	6	20	11	18.3	0.1	>0.05
opaque	25	83.3	24	80	49	81.7		
Total	30	100	30	100	60	100		



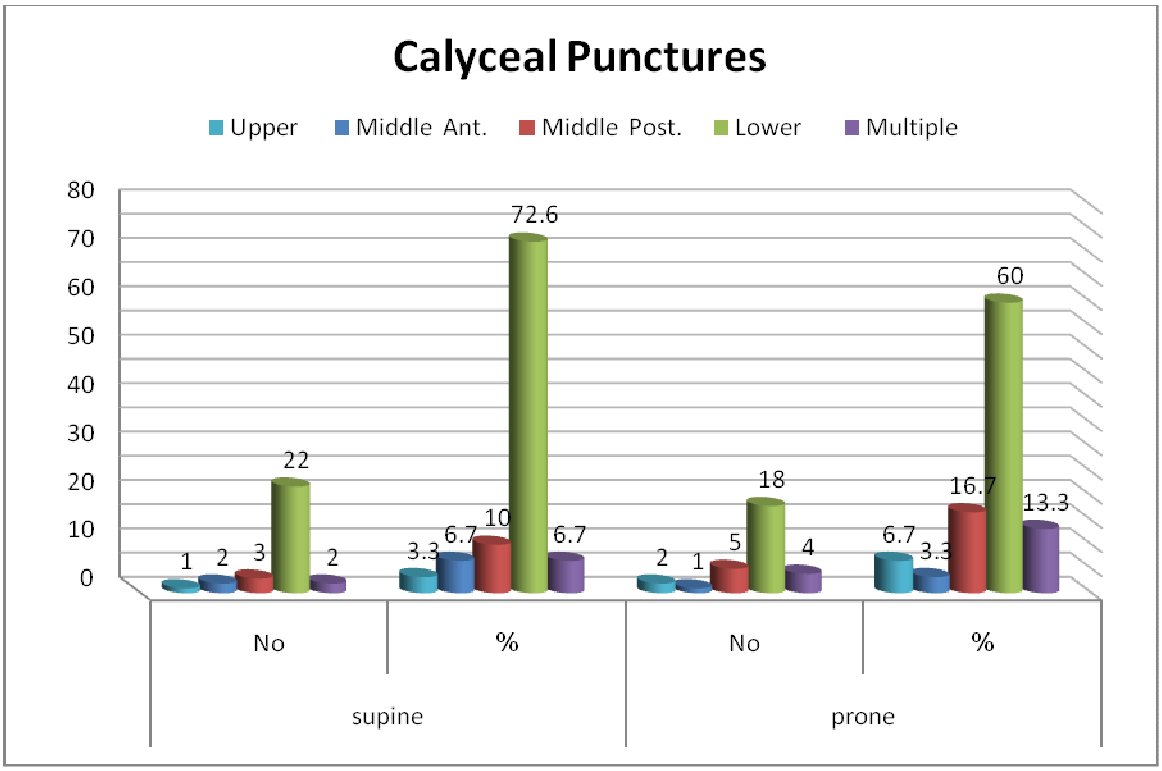
(Fig. 86): Radio-opacity of the stones in the study groups.

Comparison between both groups as regard; calyceal puncture, operative time, stone free rate, intra-operative blood loss, intra & postoperative morbidity and hospital stay were done.

In the prone group, upper calyceal puncture was done in 2 cases, middle calyceal puncture was done in 6 cases (1case in the anterior calyceal group and 5 cases in the posterior calyceal group), lower calyceal puncture was done in the majority of cases (18 cases) and multiple punctures were done in 4 cases (1 case upper and lower calyceal punctures and 3 cases middle and lower calyceal punctures). While in supine group, upper calyceal puncture was done in 1 case in the right kidney which was relatively ptosed, middle calyceal puncture was done in 5 cases (2 cases in the anterior calyceal group and 3 cases in the posterior calyceal group), lower calyceal puncture also was done in the majority of cases (22 cases) and lastly multiple punctures were done in 2 cases; (middle and lower calyces). (Table 10 & Fig. 87). With no significant statistical differences between both groups.

Table (10): Comparison between supine and prone groups according to calyceal punctures.

		supine		**prone**		**Total**		**z**	**p**
		No.	%	No.	%	No.	%		
Upper		1	3.3	2	6.7	3	5	0.6	>0.05
Middle	**Ant.**	2	6.7	1	3.3	3	5		
	Post.	3	10	5	16.7	8	13.3		
Lower		٢2	٧٢.٦	١٨	٦٠	٤٠	66.7		
Multiple		2	6.7	4	13.3	6	10		
Total		٣٠	١٠٠	٣٠	١٠٠	٦٠	١٠٠		

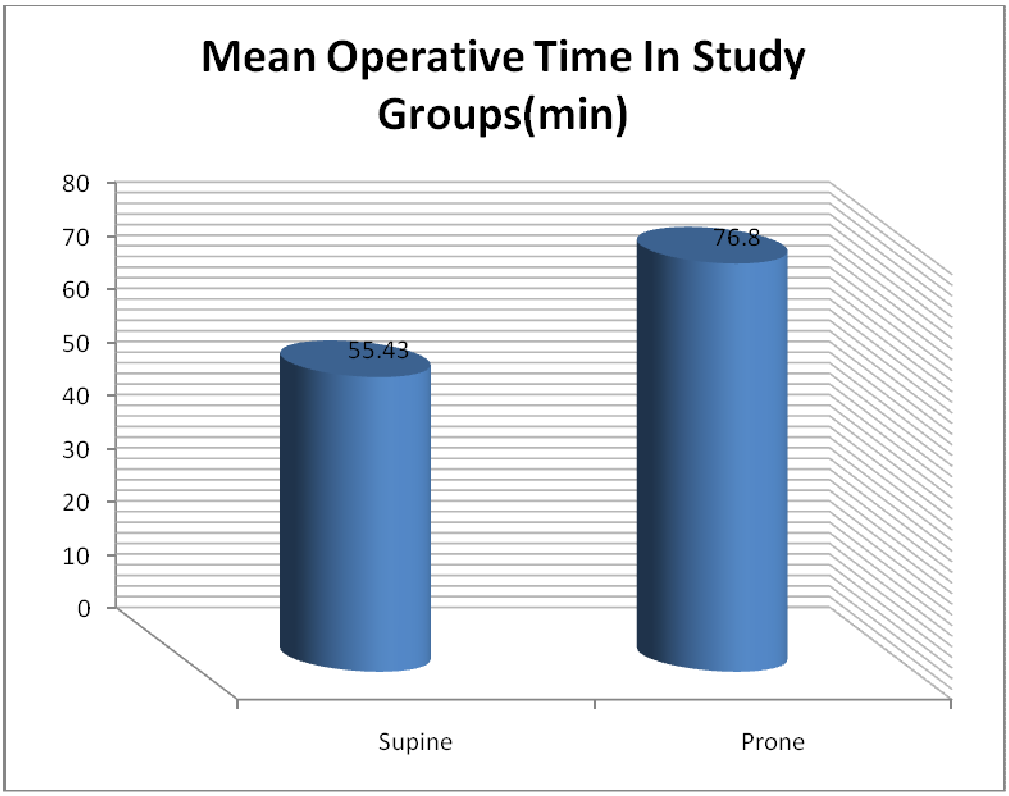


(Fig. 87): Comparison between supine and prone groups according to calyceal punctures.

The mean operative time (as defied from ureteral catheterization to the placement of nephrostomy tube) is 76.80 min in group (A) "prone" and 55.43 min in group (B) " supine" with a significant statistical difference (Table 11) & (Fig. 88).

Table (11): Comparison between supine and prone position according to operative time.

	N	Mean(min)	Std. Deviation	t	p
Supine	30	55.43	22.523	4.2	<0.001
Prone	30	76.80	16.670		

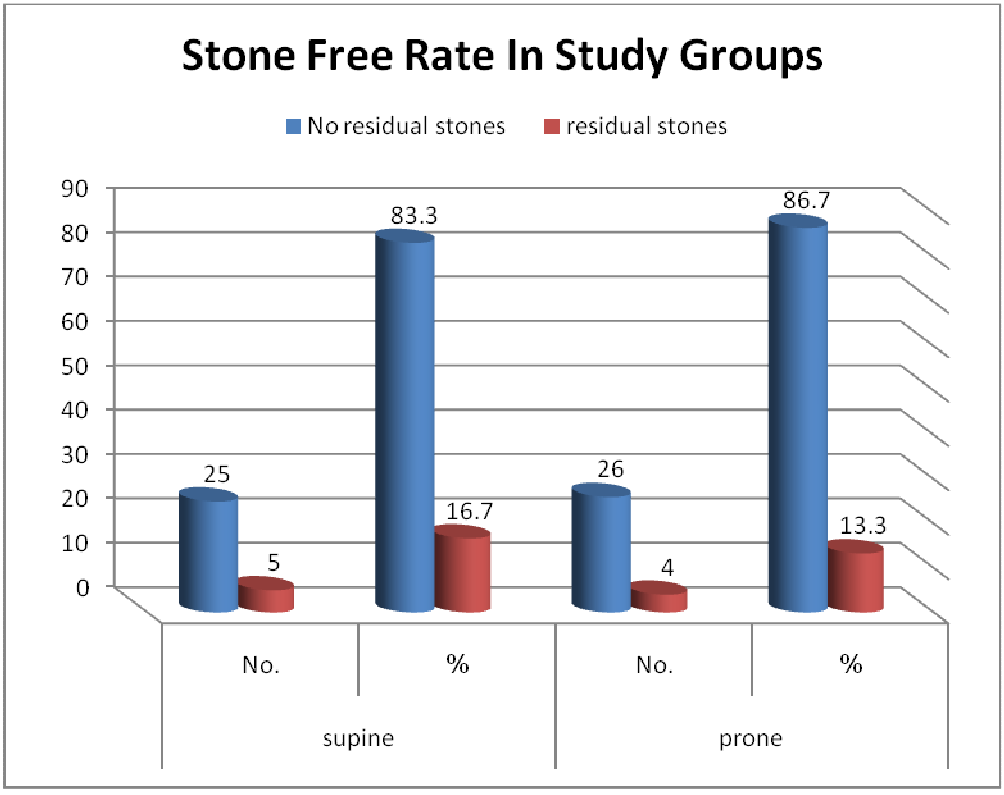


(Fig. 88): Mean operative time of the supine and prone groups.

The stone free rate of group (A) "prone" is 86.7 % (26 cases) but there were residual stones (more than 4mm in diameter) in 4 cases required 2nd look PCNL while the stone free rate of group (B) "supine" is 83.3% (25 cases) but there were 5 cases had residual stones 4 of them required 2nd look PCNL, while the 5th case was sent for ESWL because this stone was small in size about 1cm and in a different calyx, with no significant statistical differences between the 2 groups (Table 12) & (Fig. 89).

Table (12): Comparison between supine and prone groups as regards to Stone free rate:

	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
No residual stones	25	83.3	26	86.7	51	85	0.1	>0.05
residual stones	5	16.7	4	13.3	9	15		
Total	30	100	30	100	60	100		

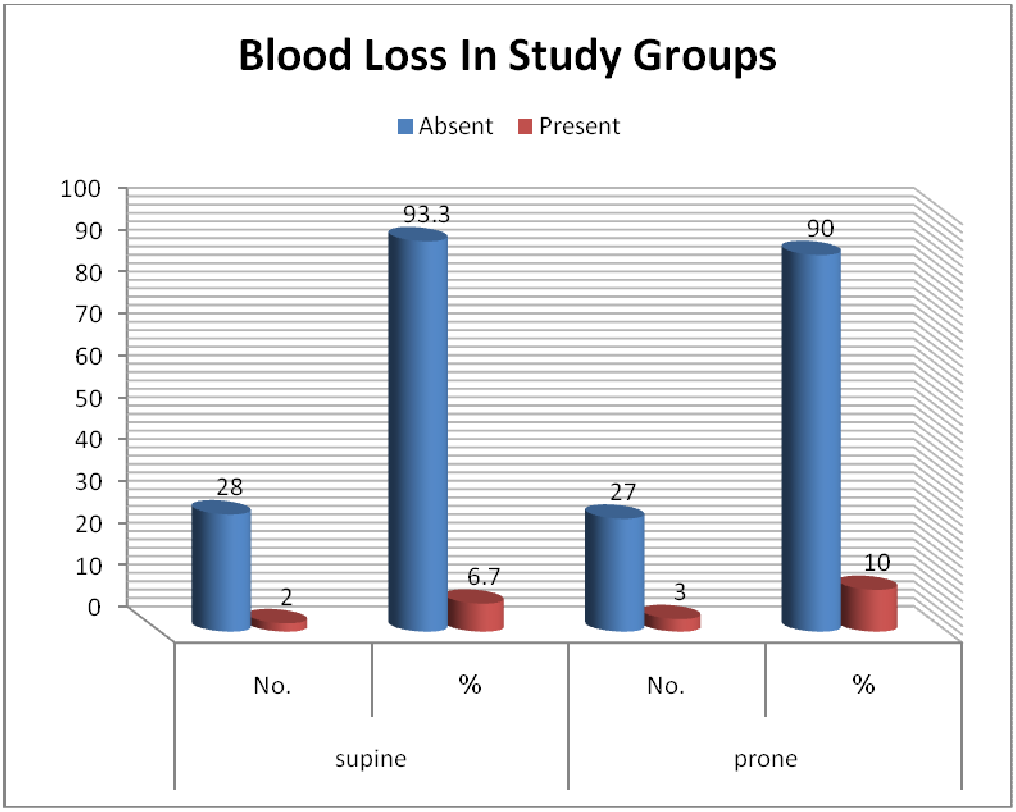


(Fig. 89): Supine and prone groups as regard stone free rate.

The blood loss required blood transfusion of the group (A) occurred in 3 cases "10%", but in group (B) occurred in 2 cases "6.7 %" with no significant statistical differences between the 2 groups (Table 13) & (Fig. 90).

Table (13): Comparison between supine and prone groups as regards to blood loss:

	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Absent	28	93.3	27	90	55	91.7	0.2	>0.05
Present	2	6.7	3	10	5	8.3		
Total	30	100	30	100	60	100		



(Fig. 90): Supine and prone groups as regard to blood loss.

The intra-operative morbidity of the group (A) " prone" were 5 cases (16.7 %). 3 cases had a significant bleeding required blood transfusion, 1 case lost tract due to loss of both guide wires but after stone extraction and there were no other complications, so regarding this case as a tubeless PCNL and we leaved the ureteric catheter for longer period (5days) to allow sealing of the tract, and

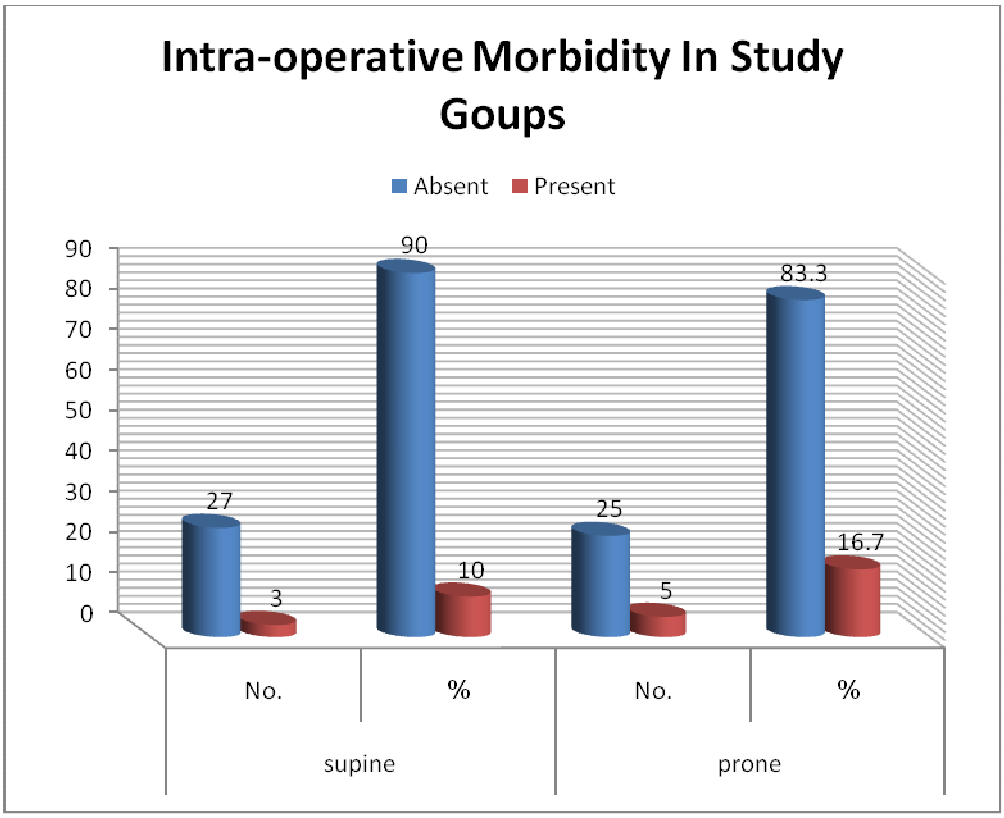
1 case of pelvic perforation which happened during dilatation , in this case the stone was small and extracted on toto rapidly and end the procedure as rapid as possible.

While the intra-operative morbidity of the supine group was 3 cases (10 %) of which 2 cases had a significant bleeding required blood transfusion and 1 case with difficult dilatation due to medial mobilization of the kidney in a thin female patient.

There was no visceral injury in both groups, with no significant statistical differences between the 2 groups (Table 14) & (Fig. 91).

Table (14): Comparison between supine and prone groups as regard To intra-operative morbidity:

	supine		**prone**		**Total**		**X^2**	**p**
	No.	%	No.	%	No.	%		
Absent	27	90	25	83.3	52	86.7	0.6	>0.05
Present	3	10	5	16.7	8	13.3		
Total	30	100	30	100	60	100		



(Fig. 91): Supine and prone groups as regard intra-operative morbidity

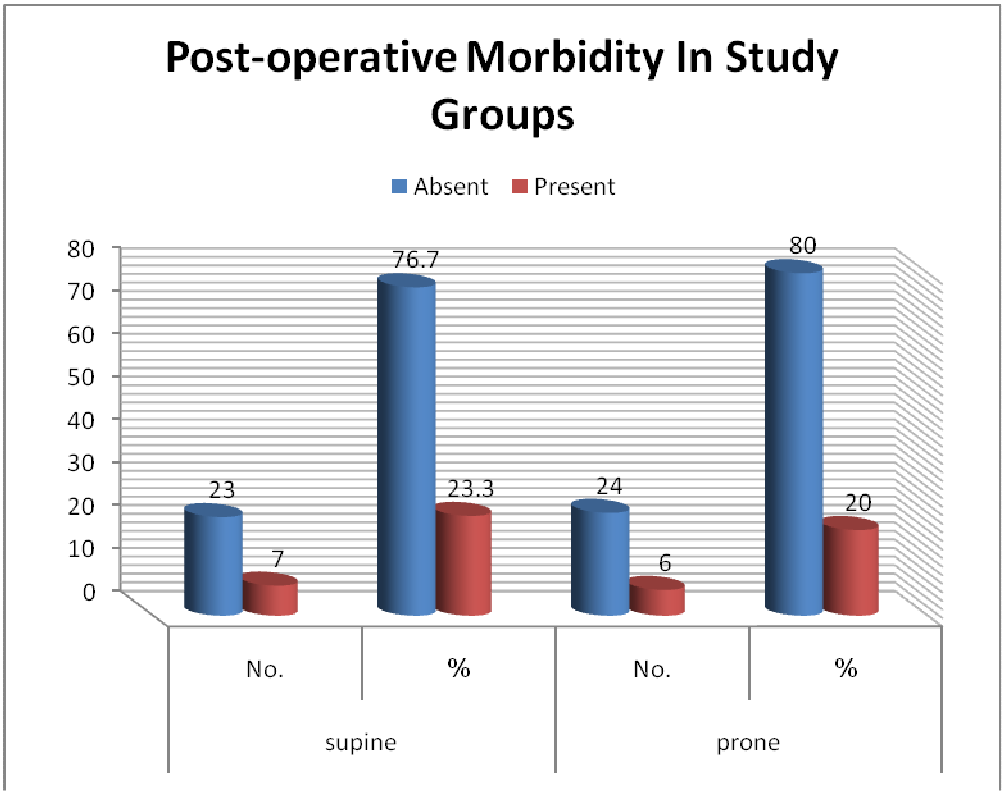
The postoperative morbidity of the group (A) "prone" was 6 cases "20%" of which 4 cases had residual stones required a second look PCNL, 1 case had fever treated by antipyretics and 1 case slipped nephrostomy tube which passed under conservative treatment.

While the postoperative morbidity of the group (B) " supine " was 7 cases "23.3%" of which 5 cases had residual stones, 4 cases of them required 2nd look PCNL and 1 case required ESWL, 1 case of peri-nephric collection treated conservatively by blood transfusion intra and post-operatively, fluids, antibiotics and JJ insertion which was removes after 3 months, and 1 case had urinary tract infection (UTI) treated by proper antibiotic according to culture and sensitivity.

There is no significant statistical difference of postoperative morbidity between the 2 groups (Table 15) & (Fig. 92).

Table (15): Comparison between supine and prone groups as regard to post operative morbidity:

	supine		prone		Total		X^2	p
	No.	%	No.	%	No.	%		
Absent	23	76.7	24	80	47	78.3	0.1	>0.05
Present	7	23.3	6	20	13	21.7		
Total	30	100	30	100	60	100		

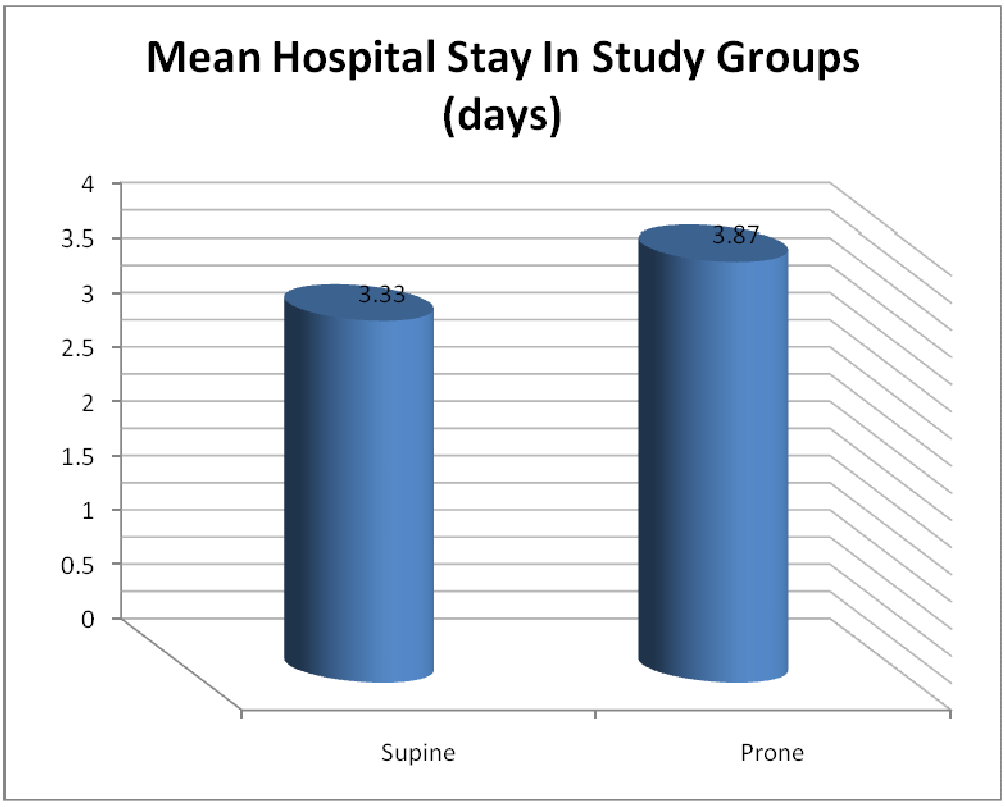


(Fig. 92): Supine and prone groups as regard to post operative morbidity

The mean hospital stay of prone group was 3.87 days, while the mean hospital stay of the supine group was 3.33 days with no significant statistical differences between both groups (Table 16) & (Fig. 93).

Table (16): Comparison between supine and prone groups as regards To hospital stay

	N	Mean(days)	Std. Deviation	t	p
Supine	30	3.33	2.123	0.8	>0.05
Prone	30	3.87	2.776		



(Fig. 93): Supine and prone groups as regard to hospital stay