Presentation and data analysis

The results obtained from this study are presented as follow :-

Part I: Presents description of socio demographic data of the sample such as age, occupation, education and, medical history and, relation of them with anesthesia complication. (Table -1, 2, 3, 4 and, 5)

Part II: This part shows description of life style and, relation of it with anesthesia complication **.** (Table – 6, 7, 8, 9, 10 and, 11)

Part III: This part illustrates effects of nursing care on anesthetic patient's complication . (Table – 12, 13, 14, 15, 16, 17, 18, 19, 20 and 21)

Table (1): Percentage distribution of personal characteristics of the studied patients. (n=60)

Personal characteristics	Frequency	%
Age in years		
• >20	16	26.7
• 20-30	19	31.6
• 30-40	9	15
• ≥40	16	26.7
Mean ± SD	31±8.7	
Sex		
• Male	29	38.3
• Female	31	51.6
Educational level		
• Illiterate	12	20
• read and write	17	28.3
• Secondary education	27	45
• Universal education	4	6.6
Marital status		
• Married	38	63.3
• Single	1	1.6
• Divorced	10	16.6
• Widow	11	18.3
Occupation		
• Working	18	30
• Not work	42	70

Table (1) showed that more than half of the studied patient age were more than 35 years old and were females, while about half of them had secondary level of education, and about two third of them were married and were not working.

Table (2): Percentage distribution of past and present surgical history of the studied patients:

Variable	Frequency	%
History of Previous surgery:		
• Yes	29	38.3
• No	31	51.6
Type of previous anesthesia(n=29)		
• General	14	48.2
• Spinal	14	48.2
• Local	1	3.6
Type of past surgery(n=29)		
• Minor surgery	20	69
• Major surgery	9	31
Type of current anesthesia		
• General	30	50
• Spinal	30	50

Table (2) reveals that more than one third of the studied patient had a past surgical history, and about half of them were anesthetized using both general and spinal anesthesia, while more than two third of them ad a minor operation, and half of them are anesthetized using both general and spinal anesthesia.

Table (3): Distribution of the studied patients affected with anesthesia complication in relation to their age:

Items	< 20year		20-30 year		30-40 year		>40 year		X^2	P
	N	%	N	%	No	%	N	%		
• Respiratory complication	11	0.31	13	0.37	4	0.11	**7**	0.2	3.62	>0.05
• Cardiovascular complication	6	0.31	7	0.36	2	0.105	4	0.21	1.18	>0.05
• Central nervous system complication	16	0.36	16	0.36	5	0.11	7	0.15	15.85	<0.001
• Gastrointestinal complication	13	0.32	15	0.37	2	0.05	10	0.25	10.94	<0.001
• Urinary complication	4	0.26	2	0.13	3	0.2	6	0.4	3.78	>0.05
• Immunity complication	4	0.26	4	0.26	2	0.13	5	0.33	0.528	>0.05
• Fluids& electrolytes imbalance	6	0.54	3	0.27	0	0	2	0.18	6.39	>0.05
• Psychological complication	8	0.29	8	0.29	6	0.22	5	0.18	3.15	>0.05
• Intubation problems	8	0.28	9	0.32	4	0.14	7	0.25	0.148	>0.05

Table (3): Reveals that 16 of patients with age < 20year had CNS complication while, 4 patients of them had immunity complication. Otherwise 16 of patients with age 20-30 years old had CNS complication while, 2 patients of them had urinary complication. Also, 6 of patients with age 30-40 years old had psychological complication while, no one of them had fluid and electrolyte imbalance. But 10 of patients with age >40 year had GIT complication while, 2 patients of them had fluid and electrolyte imbalance.

Table (4): Distribution of the studied patients affected with anesthesia complication in relation to their sex:

Items	Males		Females		X^2	P
	N	%	N	%		
• Respiratory complication	10	2.85	25	0.71	0.08	>0.05
• Cardiovascular complication	5	0.26	14	0.73	0.180	>0.05
• Central nervous system complication	12	0.27	32	0.72	0.58	>0.05
• Gastrointestinal complication	13	0.32	27	0.67	0.35	>0.05
• Urinary complication	2	0.13	13	0.86	2.64	>0.05
• Immunity complication	4	0.26	11	0.73	0.106	>0.05
• Fluids& electrolytes imbalance	5	0.45	6	0.54	1.53	>0.05
• Psychological complication	8	2.29	19	0.70	0.003	>0.05
• Intubations problems	7	0.25	21	0.75	0.625	>0.05

Table (4): reveals that 13 of males patients had GIT complication while, 2 patients of them had urinary complication. But 32 of females patients had CNS complication while, 6 patients of them had fluid and electrolyte complication.

Table (5): Distribution of the studied patients affected with anesthesia complication in relation to their educational level:

Items	Illiterate		Read and write		Secondary education		Universal education		X^2	P
	No	%	No	%	No	%	No	%		
• Respiratory complication	15	0.42	8	0.22	7	0.2	5	0.14	3.79	>0.05
• Cardiovascular complication	10	0.52	3	0.15	5	0.26	1	0.052	4.22	>0.05
• Central nervous system complication	20	0.45	9	0.20	11	0.25	4	0.090	1.62	>0.05
• Gastrointestinal complication	19	0.47	5	0.125	10	0.25	6	0.15	4.56	>0.05
• Urinary complication	9	0.6	3	0.2	2	0.13	1	0.06	5.74	>0.05
• Immunity complication	8	0.53	1	0.06	2	0.13	4	0.26	7.14	<0.05
• Fluids& electrolytes imbalance	5	0.45	0	0	4	0.36	2	0.18	3.65	>0.05
• Psychological complication	10	0.37	7	0.25	7	0.25	3	0.11	6.15	>0.05
• Intubation problems	11	0.39	7	0.25	5	0.2	5	0.2	6.63	<0.05

Table (5): reveals that 20 of illiterate patients had CNS complication while, 5 of them had fluid and electrolyte imbalance. Also 9 of patients whom read and write had CNS complication while, no one of them had fluid and electrolyte imbalance. Otherwise 11 of secondary education patients had CNS complication while, 2 patients of them had immunity complication. But 6 of universal educational level patients had GIT complication while, 1 patient of them had CVS complication.

Table (6): Percentage distribution of physical and emotional life style of the studied patients:

Item	Never		Rarely		Sometimes		Usually		Often	
	No	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
Physical life style										
• Healthy diets	5	8.3	0	0.0	16	26.6	26	43.3	13	21.6
• Proper fluid intake	0	0.0	0	0.0	30	50	20	33.3	10	16.6
• Adequate sleeping	16	26.6	6	10	25	41.6	6	10	7	11.7
• Enough rest	20	33.3	20	33.3	10	16.6	5	8.3	5	8.3
• Practice of daily activities	0	0.0	0	0.0	46	76.6	7	11.6	7	11.6
• Practice of breathing exercises	60	100	0	0.0	0	0.0	0	0.0	0	0.0
• Regular practice of physical exercises	30	50	6	10	11	18.3	13	21.6	0	0.0
• Tolerance of pain	13	21.6	7	11.6	10	16.6	20	33.3	10	16.6
• Intake of alcohol	0	0.0	8	13.3	8	13.3	13	21.6	31	51.6
Psychological life style										
• Ability to concentrate	13	21.6	10	16.6	15	25	12	20	10	16.6
• Tolerate risk	13	21.6	7	11.6	10	16.6	20	33.3	10	16.6
• Tolerance of bad feelings	13	21.6	5	8.3	5	8.3	6	10	31	51.6
• Feeling of assurance	13	21.6	6	10	6	10	30	50	5	8.3
• Express fearing	5	8.3	5	8.3	20	33.3	10	16.6	20	33.3
• Express sadness	5	8.3	5	8.3	10	16.6	15	25	25	41.6

Table (6) reveals that about half of the studied patients usually had a healthy diets, and more than third of them are never and rarely to have enough rest. But all of them never practice breathing exercises, while half of them never practice regular physical exercises, and only one third of them usually tolerate pain.

Table (7) : Distribution of the studied patients affected with anesthesia complication in relation to their physical life style:

Item	Healthy diet								Proper fluid intake								Adequate sleeping							
	Never		Sometimes		Often				Never		Sometimes		Often				Never		Sometimes		Often			
	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**
Respiratory complication	3	0.085	6	0.17	26	0.74	4.82	>0.05	0	0.0	16	0.45	19	0.54	0.68	>0.05	14	0.4	16	0.45	5	0.14	3.61	>0.05
Cardiovascular complication	2	0.105	3	0.15	14	0.73	1.77	>0.05	0	0.0	10	0.52	9	0.47	0.077	>0.05	8	o.42	7	0.36	4	0.2	1.94	>0.05
Central nervous system complication	4	0.090	9	0.20	31	0.70	7.45	<0.05	0	0.0	21	0.47	23	0.52	1.70	>0.05	18	0.40	16	0.36	10	0.22	7.08	<0.05
Gastro intestinal tract complication	4	0.1	9	0.225	27	0.675	1.81	>0.05	0	0.0	18	0.45	22	0.55	1.50	>0.05	15	0.375	16	0.4	9	0.225	1.59	>0.05
Urinary complication	1	0.06	3	0.2	11	0.73	6.82	<0.05	0	0.0	6	0.4	9	0.6	1.51	>0.05	5	0.33	9	0.6	1	0.06	4.0	>0.05
Immunity complication	3	0.2	3	0.2	9	0.6	3.76	>0.05	0	0.0	9	0.6	6	0.4	0.80	>0.05	4	0.26	10	0.66	1	0.06	7.13	<0.05
Fluids& electrolyte imbalance	1	0.090	1	0.090	9	0.818	9.09	<0.05	0	0.0	3	0.27	8	0.72	8.23	<0.05	3	0.27	3	0.27	5	0.45	3.98	>0.05
Psychological complication	2	0.074	12	0.44	13	0.48	8.22	<0.05	0	0.0	19	0.70	8	0.29	8.21	<0.05	14	0.51	8	0.29	5	0.185	6.44	>0.05
Intubation problems	1	0.039	6	0.21	21	0.75	2.77	>0.05	0	0.0	15	0.53	13	0.46	0.33	>0.05	13	0.46	11	0.39	4	0.14	13.15	<0.05

Table (7): reveals that in healthy diet, 4 of patients whom never had healthy diet had GIT complication while, 1 of them had urinary complication. Otherwise 12 of patients whom sometimes had healthy diet had psychological complication while, 1 of them had fluid and electrolyte imbalance. Also 31 of patients whom often had healthy diet had CNS complication while, 9 of them had immunity complication.

In proper fluid intake , no one of patients never had proper fluid intake. But 21 of patients whom sometimes had proper fluid intake had CNS complication while, 3 of them had fluid and electrolyte imbalance. Also 23 of patients whom often had proper fluid intake had CNS complication while, 6 of them had immunity complication.

In adequate sleeping , 18 of patients whom never had adequate sleeping had CNS complication while, 3 of them had fluid and electrolyte imbalance. Otherwise 16 of patients whom sometimes had adequate sleeping had respiratory complication while, 3 of them had fluid and electrolyte imbalance. Also 10 of patients whom often had adequate sleeping had CNS complication while, 1 of them had urinary complication.

Table (8) : Distribution of the studied patients affected with anesthesia complication in relation to their physical life style:

Item	Enough rest								Practice of daily activities								Practice of breathing exercises							
	Never		Sometimes		Often				Never		Sometimes		Often				Never		Sometimes		Often			
	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**
Respiratory complication	23	0.65	8	0.22	4	0.11	3.42	>0.05	0	0.00	25	0.71	10	0.28	1.28	>0.05	35	100	0	0.00	0	0.00	-	-
Cardiovascular complication	12	0.63	1	0.052	6	0.31	11.93	<0.01	0	0.00	13	0.68	6	0.31	1.05	>0.05	19	100	0	0.00	0	0.00	-	-
Central nervous system complication	29	0.65	7	0.15	8	0.18	2.47	>0.05	0	0.00	34	0.77	10	0.22	1.44	>0.05	44	100	0	0.00	0	0.00	-	-
Gastrointestinal tract complication	25	0.625	8	0.2	7	0.175	2.62	>0.05	0	0.00	29	0.725	11	0.275	1.48	>0.05	40	100	0	0.00	0	0.00	-	-
Urinary complication	8	0.53	3	0.2	4	0.26	2.40	>0.05	0	0.00	11	0.73	4	0.26	9.34	<0.05	15	100	0	0.00	0	0.00	-	-
Immunity complication	8	0.53	4	0.26	3	0.2	2.40	>0.05	0	0.00	9	0.6	6	0.4	3.10	>0.05	15	100	0	0.00	0	0.00	-	-
Fluids& electrolyte imbalance	5	0.45	4	0.36	2	0.18	6.90	>0.05	0	0.00	5	0.45	6	0.54	9.24	<0.05	11	100	0	0.00	0	0.00	-	-
Psychological complication	23	0.85	2	0.074	2	0.074	9.29	<0.05	0	0.00	26	0.96	1	0.03	10.86	<0.01	27	100	0	0.00	0	0.00	-	-
Intubation problems	23	0.82	4	0.14	1	0.035	10.36	<0.01	0	0.00	21	0.75	7	0.25	0.36	>0.05	28	100	0	0.00	0	0.00	-	-

Table (8): reveals that in enough rest , 29 of patients whom never had enough rest had CNS complication while, 5 of them had fluid and electrolyte imbalance . Otherwise 8 of patients whom sometimes had enough rest had respiratory complication while, 1 of them had CVS complication . Also 8 of patients whom often had enough rest had CNS complication while, 1 of them had intubation problems.

In practice of daily activities , no one of patients never had practice of daily activities. But 34 of patients whom sometimes had practice of daily activities had CNS complication while, 5 of them had fluid and electrolyte imbalance . Also 11 of patients whom often had practice of daily activities had GIT complication while, 1 of them had psychological complication.

In practice of breathing exercises all patients had never practice of breathing exercises.

Table (9) : Distribution of the studied patients affected with anesthesia complication in relation to their physical life style:

Item	Regular practice of physical exercises								Tolerance of pain								Intake of alcohol							
	Never		Sometimes		Often				Never		Sometimes		Often				Never		Sometimes		Often			
	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**
Respiratory complication	15	0.42	5	0.14	15	0.42	2.58	>0.05	11	0.31	6	0.71	18	0.51	0.37	>0.05	5	0.14	3	0.085	27	0.77	2.08	>0.05
Cardiovascular complication	9	0.47	1	0.052	9	0.47	1.05	>0.05	5	0.26	3	0.15	11	0.57	4.67	>0.05	2	0.105	3	0.15	14	0.73	0.94	>0.05
Central nervous system complication	24	0.54	4	0.090	16	0.36	1.74	>0.05	10	0.22	9	0.20	25	0.56	7.7	<0.05	3	0.068	5	0.11	36	0.81	11.23	<0.01
Gastro intestinal tract complication	18	0.45	6	0.15	16	0.4	5.69	>0.05	12	0.3	5	0.125	23	0.57	3.80	>0.05	6	0.15	4	0.1	30	0.75	1.66	>0.05
Urinary complication	5	0.33	2	0.13	8	0.53	4.70	>0.05	7	0.46	2	0.13	6	0.4	2.95	>0.05	1	0.06	4	0.26	10	0.66	3.42	>0.05
Immunity complication	4	0.26	1	0.066	10	0.66	7.75	<0.05	5	0.33	2	0.13	8	0.53	0.65	>0.05	1	0.066	2	0.13	12	0.8	2.02	>0.05
Fluids& electrolyte imbalance	4	0.36	3	0.27	4	0.36	6.09	>0.05	2	0.18	6	0.18	7	0.63	3.70	>0.05	3	0.77	1	0.090	7	0.63	2.95	>0.05
Psychological complication	19		0	0.00	8	0.29	15.12	<0.01	10	0.37	6	0.22	11	0.40	4.09	>0.05	3	0.11	4	0.148	20	0.74	1.87	>0.05
Intubation problems	13	0.46	2	0.071	13	0.46	1.83	>0.05	9	0.32	4	0.14	15	0.53	0.36	>0.05	4	0.14	4	0.14	20	0.71	0.46	>0.05

Table (9): reveals that in regular practice of physical exercises, 24 of patients whom never had regular practice of physical exercises had CNS complication while,4 of them had immunity complication. Otherwise 6 of patients whom sometimes had regular practice of physical exercises had GIT complication while, no one of them had psychological complication . Also 16 of patients whom often had regular practice of physical exercises had CNS complication while, 4 of them had fluid and electrolyte imbalance.

In tolerance of pain, 12 of patients whom never had tolerance of pain had GIT complication while,2 of them had fluid and electrolyte imbalance. Otherwise 9 of patients whom sometimes had tolerance of pain had CNS complication while, 2of them had immunity complication . Also 25 of patients whom often had tolerance of pain had CNS complication while, 6 of them had urinary complication.

In alcohol intake ,5 of patients whom never had alcohol intake had respiratory complication while,1 of them had immunity complication. Otherwise 5 of patients whom sometimes had alcohol intake had CNS complication while, 1of them had fluid and electrolyte imbalance. Also 36 of patients whom often had alcohol intake had CNS complication while, 7 of them had fluid and electrolyte imbalance.

Table (10) : Distribution of the studied patients affected with anesthesia complication in relation to their emotional life style:

Item	Ability to concentrate								Tolerate risks								Tolerance of bad feeling							
	Never		Sometimes		Often				Never		Sometimes		Often				Never		Sometimes		Often			
	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**
Respiratory complication	13	0.37	7	0.2	15	0.42	1.68	>0.05	12	0.34	3	0.085	20	0.57	4.83	>0.05	11	0.31	3	0.085	21	0.6	1.72	>0.05
Cardiovascular complication	9	0.47	3	0.15	7	0.36	2.78	>0.05	7	0.36	2	0.105	10	0.52	3.21	>0.05	2	0.105	0	0.00	17	0.89	12.55	<0.01
Central nervous system complication	15	0.34	12	0.27	17	0.38	3.01	>0.05	13	0.29	6	0.13	25	0.56	3.72	>0.05	11	0.25	3	0.068	30	0.68	8.08	<0.05
Gastrointestinal tract complication	18	0.45	8	0.2	14	0.35	2.81	>0.05	17	0.42	4	0.1	19	0.47	7.54	<0.05	11	0.27	4	0.1	25	0.62	2.57	>0.05
Urinary complication	7	0.46	1	0.06	7	0.46	7.85	<0.05	7	0.46	1	0.06	7	0.46	8.33	<0.05	2	0.13	1	0.06	12	0.8	4.04	>0.05
Immunity complication	5	0.33	2	0.13	8	0.53	4.12	>0.05	6	0.4	1	0.066	8	0.53	3.01	>0.05	5	0.33	1	0.066	9	0.6	2.63	>0.05
Fluids& electrolyte imbalance	4	0.36	3	0.27	4	0.36	0.163	>0.05	3	0.27	0	0.00	8	0.72	4.23	>0.05	3	0.27	1	0.090	7	0.63	1.81	>0.05
Psychological complication	10	0.37	8	0.92	9	0.33	5.14	>0.05	10	0.37	6	0.22	11	0.40	5.02	>0.05	6	0.22	3	0.11	18	0.66	2.70	>0.05
Intubation problems	8	0.28	7	0.52	13	0.46	2.83	>0.05	7	0.52	5	0.17	16	0.57	2.12	>0.05	8	0.28	1	0.035	19	0.67	5.4	>0.05

Table (10): reveals that in ability to concentrate, 18 of patients whom never had ability to concentrate had GIT complication while,4of them had. fluid and electrolyte imbalance. Otherwise 12 of patients whom sometimes had ability to concentrate had CNS complication while, 1of them had urinary complication . Also 17 of patients whom often had ability to concentrate had CNS complication while, 4 of them had fluid and electrolyte imbalance.

In tolerate risk, 17 of patients whom never had tolerate risk had GIT complication while,3of them had fluid and electrolyte imbalance. Otherwise 6 of patients whom sometimes had tolerate risk had psychological complication while, no one of them had fluid and electrolyte imbalance. Otherwise Also 25 of patients whom often had tolerate risk had CNS complication while, 7 of them had urinary complication.

In tolerance of bad feelings, 11 of patients whom never had tolerance of bad feelings had respiratory complication while, 2 of them had CVS complication. Otherwise 4of patients whom sometimes had tolerance of bad feelings had GIT complication while, no one of them had CVS complication. Otherwise Also 30 of patients whom often had tolerance of bad feelings had CNS complication while, 9of them had immunity complication.

Table (11) : Distribution of the studied patients affected with anesthesia complication in relation to their emotional life style:

Item	Feeling of assurance								Express of fearing								Express of sadness							
	Never		Sometimes		Often				Never		Sometimes		Often				Never		Sometimes		Often			
	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**	N	%	N	%	N	%	**X2**	**P**
Respiratory complication	11	0.31	4	0.11	20	0.57	1.12	>0.05	5	0.14	12	0.34	18	0.51	1.37	>0.05	5	0.14	7	0.2	23	0.65	1.44	>0.05
Cardiovascular complication	2	0.105	0	0.00	17	0.89	13.77	<0.01	3	0.15	7	0.36	9	0.47	1.30	>0.05	3	0.15	3	0.15	13	0.68	2.23	>0.05
Central nervous system complication	12	0.27	4	0.090	28	0.63	7.48	<0.05	7	0.15	15	0.34	22	0.5	19.09	<0.01	7	0.15	7	0.15	30	0.68	14.62	>0.05
Gastrointestinal tract complication	12	0.3	4	0.1	24	0.6	2.11	>0.05	8	0.2	14	0.35	18	0.45	2.17	>0.05	8	0.2	9	0.225	23	0.57	4.84	>0.05
Urinary complication	2	0.13	1	0.06	12	0.8	6.53	<0.05	2	0.13	8	0.53	5	0.33	4.00	>0.05	2	0.13	4	0.26	9	0.6	2.54	>0.05
Immunity complication	5	0.33	1	0.066	9	0.6	2.74	>0.05	4	0.26	5	0.33	6	0.4	1.60	>0.05	4	0.26	2	0.13	9	0.6	2.96	>0.05
Fluids& electrolyte imbalance	3	0.27	1	0.090	7	0.63	1.72	>0.05	2	0.18	1	0.090	8	0.72	6.90	<0.05	2	0.18	0	0.00	9	0.81	5.49	>0.05
Psychological complication	7	0.25	4	0.148	16	0.59	2.93	>0.05	4	0.148	8	0.29	15	0.55	0.60	>0.05	4	0.148	6	0.22	17	0.62	1.17	>0.05
Intubation problems	9	0.32	2	0.071	17	0.60	4.11	>0.05	2	0.071	11	0.39	15	0.53	5.15	>0.05	2	0.071	6	0.4	20	0.71	5.46	>0.05

Table (11): reveals that in feeling of assurance, 12 of patients whom never had feeling of assurance had CNS complication while, 2 of them had CVS complication. Otherwise 4 of patients whom sometimes had feeling of assurance had psychological complication while, no one of them had CVS complication . Also 28 of patients whom often had feeling of assurance had CNS complication while, 9 of them had immunity complication.

In express of fearing, 8 of patients whom never had express of fearing had CNS complication while, 2 of them had intubation problems. Otherwise 14 of patients whom sometimes had express of fearing had GIT complication while,1 of them had fluid and electrolyte imbalance. Also 22 of patients whom often had express of fearing had CNS complication while, 5 of them had urinary complication.

In express of sadness, 7 of patients whom never had express of sadness had CNS complication while, 2 of them had urinary complication. Otherwise 9 of patients whom sometimes had express of sadness had GIT complication while, no one of them had fluid and electrolyte imbalance. Also 30 of patients whom often had express of sadness had CNS complication while, 9 of them had immunity complication.

Table (12) :Percentage distribution of preoperative laboratory investigation of studied patients:

Type of laboratory investigation					Normal		Abnormal	
	No	%	No	%	No	%	No	%
Hb	60	100	0	0.0	53	88.3	7	11.6
WBCs	60	100	0	0.0	35	58.3	25	41.6
RBCs	60	100	0	0.0	44	73.3	16	26.6
Hematocrite	60	100	0	0.0	38	63.3	22	36.6
ABG	60	100	0	0.0	55	91.6	5	8.3
O2 saturation	60	100	0	0.0	56	93.3	4	6.6
Liver function	40	66.6	20	33.3	28	46.6	12	20
Kidney function	40	66.6	20	33.3	25	41.6	15	25
Thyroid function	20	33.3	40	66.6	0	0.0	20	33.3
Stool	15	25	45	75	10	16.6	5	8.3
Urine	30	50	30	50	20	33.3	10	16.6

Table (12) reveals that all of the studied patient had a complete blood count laboratory investigation, while more than three quarter of them had a normal level of HB and RBCs, and one quarter of them had stool test, but about one fifth of them had normal findings of stool test.

Table (13) :Percentage distribution of preoperative diagnostic study of the studied patients:

Type of diagnostic studies:	Yes		No		If yes			
					Normal		Abnormal	
	No	%	No	%	No	%	No	%
X_ rays	15	25	45	75	15	100	0	0.0
CT	30	50	30	50	20	66.7	10	33.3
MRI	0	0.0	60	100	0	0.0	0	0.0
Endoscope	8	13.3	52	86.6	6	75	2	25
Ultra sound	50	83.3	10	16.6	45	90	5	10

Table (13) indicates that one quarter of the studied patient were diagnosed using X-ray studies while all of them had a normal findings. But more than three quarter of them were diagnosed using ultra sound, and about all of them had a normal findings.

Table (14) :Percentage distribution of preoperative physical preparation as reported by studied patients:

Intervention	Completely done		Incompletely done		Not done	
	No	%	No	%	No	%
Preoperative Physical Preparations						
1. Monitor vital signs.	0	0.0	60	100	0	0.0
2. Prepare the patient for physical examination	0	0.0	20	33.3	40	66.6
3. Send a blood sample for hemoglobin, haematocrit, if needed.	60	100	0	0.0	0	0.0
4. Restrict oral intake by NPO for 3-4 hours.	60	100	0	0.0	0	0.0
5. Give pre-medications as ordered.	60	100	0	0.0	0	0.0
6. Give an enema as ordered.	20	33.3	0	0.0	40	66.6
7. Perform skin preparation, which consists of shaving, scrubbing sterile with gauze and water followed by alcohol scrub.	0	0.0	0	0.0	60	100
8. Record voiding time and amount through catheterization or toilet as bladder preparation.	50	83.3	10	16.6	0	0.0
9. Remove makeup, nail polish, and dentures.	60	100	0	0.0	0	0.0

Table (14) reveals that all the studied patients reported that nurses monitor vital signs incompletely ,also all of them reported that nurses send blood for investigation and restrict oral intake by NPO, and give the pre medication as order. And all of them reported that nurses don't provide skin preparation for surgery.

Table (15): Percentage distribution of preoperative care at morning day of operation as reported by patients:

Intervention	Completely done		Incompletely done		Not done	
	No	%	No	%	No	%
At Morning Day Of Operation						
1. Record the temperature, pulse, respiration, blood pressure, and oxygen saturation.	0	0.0	60	100	0	0.0
2. Empty the bladder and insert retention catheter as ordered.	20	33.3	32	53.3	8	13.3
3. Ensure that all underwear has been removed, and assist client to wear surgical cap.	60	100	0	0.0	0	0.0
4. Be sure that all rings, jewelry, and dentures are removed.	60	100	0	0.0	0	0.0
5. Leave the patient to rest quietly when the pre-medication has been given, monitor for reaction to drugs.	0	0.0	60	100	0	0.0
6. Ensure that all relevant studied patients' information is passed on to other members of the team doctor, nurse, anesthetist, assistant and others).	0	0.0	0	0.0	60	100
7. Prepare the patient's bed and keep it tidy until her return from the operating room, prepare also equipment for IV fluid	60	100	0	0.0	0	0.0
8. Accompany the patient to the theatre reception area, and hand the patient over to the care of the theatre nurse after confirming correct patient identification.	0	0.0	0	0.0	60	100

Table (15) indicates that all of studied patients reported that nurses ensure that underwear , all rings ,jewelry and dentures has been removed. Also all of them reported that nurses .and all of them reported that nurses don't ensure that all relevant studies patient information is passed on to other team, and accompany patients to the theatre reception area.

Table (16) :Percentage distribution of nursing care at operating room for the studied patients as observed by the researcher :

Intervention	Completely done		Incompletely done		Not done	
	No	%	No	%	No	%
In The Operating Room						
1. The operating room environment is ready for the operation.	60	100	0	0.0	0	
2. All equipment and supplies are available.	60	100	0	0.0	0	0.0
3. Apparatus for general is ready.	60	100	0	0.0	0	0.0
4. The nurse greet the patient by name, Confirm with the ward nurse that it is the correct patient for the scheduled operation.	20	33.3	20	33.3	20	33.3
5. The patient is placing in a suitable position for the operation.	60	100	0	0.0	0	0.0
6. The patient was given pre-operative medications and a few quietly spoken wards to explain what is going on.	60	100	0	0.0	0	0.0
7. The area of operation is scrubbing by antiseptic solution to cover the area of operation	60	100	0	0.0	0	0.0
8. Drape the patient immediately after the area is prepared.	60	100	0	0.0	0	0.0
9. The various instruments is handling as required by scrub nurse.	60	100	0	0.0	0	0.0
10. The principles of asepsis sterilize is applying in all materials .	0	0.0	60	100	0	0.0
11. The patient’s condition is monitoring regularly throughout the procedure by circulating nurse.	60	100	0	0.0	0	0.0
12. Record patient's name, date, time and result of operation .	0	0.0	0	0.0	60	100

Table (16) shows that all of the studied patients were admitted to a complete ready operating room, with complete general anesthesia apparatus, they were placing in suitable position, site of operation was scrubbing to all of them ,and their conditions were monitored.

Table (17) :Percentage distribution of immediate post-operative care for the studied patients as observed by the researcher:

Intervention	Completely done		Incompletely done		Not done	
	No	%	No	%	No	%
In The Recovery Room Immediate Postoperative Care						
1. The patient is accompanying to the recovery area.	0	0.0	0	0.0	60	100
2. The history and data from records has taken upon admission of the patient to the recovery room.	20	33.3	40	66.6	0	0.0
3. The patient is placed in the recovery position.	60	100	0	0.0	0	0.0
4. The patient's condition is assessing immediately after the operation	0	0.0	60	100	0	0.0
5. Care, medications, and consultations is documenting.	40	66.6	0	0.0	20	33.3

Table (17) illustrates that all of the studied patients were placed at the recovery position and, their condition were incompletely assessed. while more than two third of them had their medication.

Table (18) :Percentage distribution of late post-operative care for the studied patients:

Intervention	Completely done		Incompletely done		Not done	
	No	%	No	%	No	%
Late Postoperative Care:						
1. The patient is putting on correct position in bed.	0	0.0	40	66.6	20	33.3
2. Complete assessment is taking upon patient's arrival in the ward room.	0	0.0	30	50	30	50
3. Vital signs is checking and recording every 15-30 minutes.	0	0.0	40	66.6	20	33.3
4. Wound care is providing for excessive bleeding.	0	0.0	30	50	30	50
5. Medication is giving after surgery which may be helpful such as narcotics, non-steroids, anti-inflammatory and anti-emetics.	0	0.0	40	66.6	20	33.3
6. Drainage tubes is checking.	0	0.0	30	50	30	50
7. Intake and output is checking.	0	0.0	30	50	30	50
8. Deep breathing is providing every one hour for the first 12 hours and every 2-3 hours for the next 12 hours.	0	0.0	0	0.0	60	100
9. Early ambulation is encouraging on the day of operation after major surgery and encourage change of position every 3 hours.	0	0.0	30	50	30	50

Table (18) shows that more than two third of the studied patients were incompletely checked for vital signs every 15 minutes, putting in correct postoperative position and were giving their medications

Table (19): Distribution of the studied patients affected with anesthesia complication in relation to preoperative nursing care:

Items	Not done		Incompletely done		Completely done		X^2	P
	No	%	No	%	No	%		
Respiratory complication	3	0.085	9	0.25	23	0.65	2.84	>0.05
Cardiovascular complication	2	0.105	8	0.42	9	0.47	2.35	>0.05
Central nervous system complication	5	0.11	14	0.31	25	0.56	1.95	>0.05
Gastrointestinal complication	4	0.1	13	0.32	23	0.57	0.26	>0.05
Urinary complication	0	0	5	0.33	10	0.66	2.20	>0.05
Immunity complication	1	0.66	5	0.33	9	0.6	0.05	>0.05
Fluids& electrolytes imbalance	0	0	5	0.45	6	0.54	1.07	>0.05
Psychological complication	1	0.037	10	0.37	16	0.59	0.04	>0.05
Intubation problems	3	00.107	9	0.32	16	0.57	0.42	>0.05

Table (19): reveals that 5 of patients whom hadn't had preoperative nursing care had CNS complication while, no one of them had urinary complication. Otherwise 14of patients whom had incompletely preoperative nursing care had CNS complication while, 5 of them had immunity complication. Also 25 of patients whom had completely preoperative nursing care had CNS complication while, 6 of them had fluid and electrolyte imbalance.

Table (20): Distribution of the studied patients affected with anesthesia complication in relation to intra operative nursing care:

Items	Not done		Incompletely done		Completely done		X^2	P
	No	%	No	%	No	%		
Respiratory complication	3	0.085	22	0.63	10	0.28	2.52	>0.05
Cardiovascular complication	2	0.105	13	0.68	4	0.210	1.43	>0.05
Central nervous system complication	3	0.068	24	0.54	17	0.38	2.37	>0.05
Gastrointestinal complication	3	0.075	23	0.57	14	0.35	2.49	>0.05
Urinary complication	2	0.133	8	0.53	5	0.33	0.05	>0.05
Immunity complication	1	0.66	11	0.73	3	0.2	0.46	>0.05
Fluids& electrolytes imbalance	0	0	5	0.45	6	0.54	3.14	>0.05
Psychological complication	2	0.074	15	0.55	10	0.37	0.231	>0.05
Intubation problems	2	0.071	17	0.60	9	0.32	0.311	>0.05

Table (20): reveals that 3 of patients whom hadn't had intra operative nursing care had respiratory complication while, no one of them had fluid and electrolyte imbalance. Otherwise 24 of patients whom had incompletely intra operative nursing care had CNS complication while, 5 of them had fluid and electrolyte imbalance. Also 17 of patients whom had completely intra operative nursing care had CNS complication while, 3 of them had immunity complication.

Table (21): Distribution of the studied patients affected with anesthesia complication in relation to post-operative nursing care:

Items	Not done		Incompletely done		Completely done		X^2	P
	No	%	No	%	No	%		
Respiratory complication	10	0.28	22	0.63	3	0.85	0.517	>0.05
Cardiovascular complication	5	0.26	14	0.73	0	0	0.109	>0.05
Central nervous system complication	11	0.25	31	0.70	2	0.045	0.934	>0.05
Gastrointestinal complication	12	0.3	25	0.62	3	0.075	0.98	>0.05
Urinary complication	5	0.33	9	0.6	1	0.06	0.82	>0.05
Immunity complication	6	0.4	8	0.53	1	0.66	3.75	>0.05
Fluids& electrolytes imbalance	2	0.18	8	0.72	1	0.090	2.45	>0.05
Psychological complication	9	0.33	17	0.62	1	0.037	0.138	>0.05
Intubation problems	9	0.32	19	0.67	0	0	3.81	>0.05

Table(21): reveals that 12 of patients whom hadn't had post-operative nursing care had GIT complication while, 2of them had fluid and electrolyte imbalance. Otherwise 31 of patients whom had incompletely post-operative nursing care had CNS complication while, 8 of them had fluid and electrolyte imbalance. Also 3 of patients whom had completely post-operative nursing care had respiratory complication while, no one of them had CVS complication.

Table (22): Comparison between patients affected with general and spinal anesthesia complication:

Items	General anesthesia		Spinal anesthesia		X^2	P
	No	%	No	%		
Respiratory complication	18	o.51	17	0.48	0.069	>0.05
Cardiovascular complication	10	0.52	9	0.47	0.077	>0.05
Central nervous system complication	23	0.52	21	0.47	0.341	>0.05
Gastrointestinal complication	20	0.5	20	0.5	0.000	-
Urinary complication	6	0.4	9	0.6	0.86	>0.05
Immunity complication	7	0.46	8	0.53	0.089	>0.05
Fluids& electrolytes imbalance	6	0.54	5	0.45	0.111	>0.05
Psychological complication	12	0.44	15	0.55	0.60	>0.05
Intubation problems	28	100	-	-	-	-

Table (22): reveals that 28 of patients with general anesthesia had intubation problems while, 6 patients of them had urinary complication. But 21 of patients with spinal anesthesia had CNS complication while patients of them had fluid and electrolyte imbalance.

Figure (1) Comparison between patients affected with general and spinal anesthesia complication.