

RESULTS

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- ***Included patients were classified according to operation performed in to four groups:***

Group I: Laparoscopic colecystectomy.

Group II: Laparoscopic varicocetectomy.

Gruop III: Laparoscopic appandectomy.

Group IV: Laparoscopic Fundoplication.

The results gained from our work have been gathered, analysed and collectively tabulated in serial tables as follows:

The clinical data gained from the included patients were collectively summerized as follows:

- Ages of the included patients of all groups were collected in table (1).
- The presenting symptoms of the included patients were summerized in table (2).
- Preoperative analysis were performed for all groups to assess and evaluate the cases who had surgical problems.
Routine invistigations were tabulated in table (3).
- Abdominal ultrasonography was performed for all patients and the resulting findings were collectively summerized in table (4).
- Only group TV was subjected to barium study and the resulting findings were tabulated in table (5).
- Upper gastrointestinal endoscopy was routinely done for group IV and group I and endoscopic findings were collected in table (6).
- Associated medical disorders were tabulated in table (7).

- Operative data gained from group I were collectively summarized in table (8).
- The postoperative data of group I were tabulated in table (9).
- The incidence of improvement and the postoperative morbidity that recorded among studied patients of group I one year postoperatively were tabulated in table (10).
- Operative data gained from group II were collectively summarized in table (11).
- The postoperative data of group II were tabulated in table (12).
- The incidence of improvement and the postoperative morbidity that recorded among studied patients of group II one year postoperatively. Were tabulated in table (13).
- Operative data gained from group III were collectively summarized in table (14).
- The postoperative data of group III were tabulated in table (15).
- The incidence of improvement and the postoperative morbidity that recorded among studied patients were tabulated in table (16).
- Operative data gained from group IV were collectively summarized in table (17).
- The postoperative data of group IV were tabulated in table (18).
- The incidence of improvement and the postoperative morbidity that recorded among studied patients of group IV one year postoperatively were tabulated in table (19).

Table (1): The age groups of the studied patients

Age groups	Group I		Group II		Group III		Group IV	
	No.	%	No.	%	No.	%	No.	%
15-20 years	0	0	2	10	7	35	0	0
20-25 years	1	2	13	65	6	30	0	0
25-30 years	2	4	3	15	3	15	0	0
30-35 years	4	8	1	5	0	0	0	0
35-40 years	7	14	1	5	1	5	1	10
40-45 years	28	56	0	0	2	10	5	50
45-50 years	5	10	0	0	0	0	3	30
50-55 years	3	6	0	0	1	5	1	10
Total	50		20		20		10	

Table (2): Symptomatology of the included patients

Group I (50 pt.)			Group II (20 pt.)			Group III (20 pt.)			Group IV (10 pt.)		
Symptoms	No.	%	Symptoms	No.	%	Symptoms	No.	%	Symptoms	No.	%
Fatty dyspepsia	42	84	Dragging pain	15	75	Rt. Iliac fossa pain	9	45	Heart burn	8	80
Rt. Hypochondral pain	36	72	Subfertility	17	85	Nausea	11	55	Regurgitation	6	60
Recurrent biliary colic	11	22	Scrotal swelling	9	45	Vomiting	2	10	Dysphagia	4	40
Epigastric pain	4	8	Failure medical council	6	30	Diarrhea	4	20	Epigastric pain	2	20
Others:	3	6				Atypical persentation	12	60	Belching	4	40
* Pseudoanginal pain	2	4				Loin pain	8	40	Nausea	2	20
* Toxic symptoms	1	2				Rt. Hypochondral pain	4	20	Chest pain	1	10
									Respiratory symptoms	3	30
									Cough	2	20
									Choking	2	20
									Pyspnia	1	10
									Stridor	1	10

Table (3): Routine investigations that were undertaken for all included patients

Investigation	Findings	Group I (50 pt.)		Group II (20 pt.)		Group III (20 pt.)		Group IV (20 pt.)	
		No.	%	No.	%	No.	%	No.	%
1- Laboratory:	* Bilharziasis	7	14	1	5	3	15	2	20
	* Parasitic infestation	8	16	0	0	2	10	3	30
	* Anemia	3	6	1	5	1	5	0	0
	* Leucocytosis	2	4	0	0	12	60	1	10
* Liver function tests:									
* Liver enzymes SGOT and SGPT									
* Bilirubin	Raised liver	6	12	0	0	2	10	1	10
* Prothrombin time and concentration	Enzymes								
* Albumin									
* Alkaline phosphatase									
• Kidney function tests: urea and creatinine	Raised	0	0	0	0	0	0	0	0
• Blood sugar: Fasting and postprandial	Hyperglycaemia	15	30	0	0	3	15	2	20
2- Chest X-ray	Chronic bronchitis	4	8	1	5	3	15	3	30
3- E.C.G.	Raised S-T segment.	6	12	0	0	2	10	2	20

Table (4): Ultrasound findings in all group

Ultrasound findings	Group I (50 pt.)		Group II (20 pt.)		Group III (20 pt.)		Group IV (10 pt.)	
	No.	%	No.	%	No.	%	No.	%
-Gall stones	50	100	0	0	0	0	2	201
-Fatty liver	14	28	3	15	4	20	3	30
-Cirrhotic liver	4	8	0	0	1	5	0	0
-Spleenomagly	3	6	0	0	1	5	0	0
-Renal calculi	1	2	0	0	0	0	0	0
-Renal cysts.	2	4	0	0	0	0	1	10
-Ascites	0	0	0	0	0	0	0	0
-Pancreas abnormalities	0	0	0	0	0	0	0	0
-Paraoartic lymphnode	0	0	0	0	0	0	0	0
-Pelvis abnormalities	0	0	0	0	0	0	0	0

Table (5): Barium findings of group IV

Barium findings	Group IV (10 pt.)	
	No.	%
Hiatal hernia	8	80
Barium reflux from the stomach In to esophagus with patients upright position	6	60

Table (6): Endoscopic examination of group I and group IV

Endoscopic Findings	Group I (50 pt.)		Group IV (10 pt.)	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Esophagitis:				
Grade O (For normal)	43	86	0	0
Grade I	7	14	2	20
Grade II	0	0	4	40
Grade III	0	0	3	30
Grade IV				
- ulceration	0	0	1	10
- stricture	0	0	0	0
Others:				
Mild Esophageal varices	1	2	0	0

Table (7): Associated medical problems of all groups of patients

Associated medical Problems	Group I (50 pt.)		Group II (20 pt.)		Group III (20 pt.)		Group IV (10 pt.)	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
I. Cardiorascular								
* Hypertension	6	12	0	0	3	15	3	30
* Ischaemia	3	6	0	0	2	10	1	10
* Arrhythmia	1	2	0	0	1	5	1	10
II- Chestproblems								
Wheezychest	5	10	1	5	2	10	2	20
III- Diabetes Mellitus								
	15	30	0	0	0	15	2	20
IV- Obesity								
	8	16	3	15	2	10	1	10

Table (8): Details of operative data as regarding group I.

Operative Data	Group I (50 pt.)
* Mean operative time	± 47 min. (25 – 92) minutes.
** Intraoperative complications	
Insufflation:	
* Cardiac arrhythmias:	5 (10%)
• Extrasystoles	4 (8%)
• Asystole	1 (2%)
* Difficult insufflation	4 (8%)
* Surgical emphysema	1 (2%)
* Serosal tear	0
* Mesentric haematoma	0
Bleeding:	
* From trochar site	3 (6%)
* Cystic artery	2 (4%)
* Liver bed.	3 (6%)
* Omentum	0
Injuries:	
* Gall bladder with spillage of stones.	4 (8%)
* Common Bile duct injury.	0
* Doudenum.	0
* Colon.	0
* Stomach.	0
Clep slipping	1 (2%)
Difficult technique and conversion to open	1 (2%)

Table (9): The postoperative data of group I

Postoperative complications	Group I (50 pt.)
* Mean hospital stay	± 2 days (1-5) days
* Sever pain	7 (14%)
* Ileus	2 (4%)
* Fever upto 38.5°C	8 (16%)
* Reactionaryhaemorrhage	0
* Wound infection	2 (4%)
* Others:	
* Pancreatitis	0
* Chest infection	4 (8%)
* Deep vein thrombosis	0
* Uncontrolled D.M.	2 (4%)
*Myocardial ischemic attack	1 (2%)
* Mortality	0

Table (10): The incidence improvement and the postoperative morbidity that recorded among studied patients of group I one year postoperatively

Postoperative follow up	Group I (50 pt.)
* Clinical improvement:	
* Symptoms relieve	45 (90%)
* Persistence of mild symptoms	3 (6%)
* Aggravation of symptoms	2 (4%)
* Type of morbidity:	
* Jaundice	2 (4%)
* Collection	2 (4%)
* Bile leakage	1 (2%)
* Incisional hernia	3 (6%)
* Missed stone C.B.D.	1 (2%)
* Structure of C.B.D.	0

Table (11): Details of operative data for group II

Operative Data	Group II (20 pt.)
* Mean operative time	± 17 min. (10-25) minutes
* Intra operative complications:	
* Insufflation:	
* Cardiac arrhythmias	1 (5%)
• Extrasystoles	1 (5%)
• Asystole	0
* Difficult insufflation	0
* Surgical emphysema	1 (5%)
* Serosal tear	0
* Mesenteric haematoma	0
* Bleeding:	
* From trochar site	1 (5%)
* From large vascular structures	0
* Injuries:	
* Urinary bladder	0
* Loops of intestine	0
* Failure and conversion to open	0

Table (12): The postoperative data of group II

Postoperative complications	Group II (20 pt.)
* Mean hospital stay	± 1 days (0-3) days
* Sever pain	2 (10%)
* Ileus	1 (5%)
* Fever upto 38.5°C	3 (15%)
* Reactionary haemorrhage	0
* Wound infection	2 (10%)
* Others:	
* Chest infection	1 (5%)
* Deep vein thrombosis	0
* Uncontrolled D.M.	0
* Myocardial ischemic attack	0
* Mortality	0

Table (13): The incidence of improvement and the postoperative morbidity that recorded among studied patients of group II one year postoperatively

Postoperative follow up	Group II (20 pt.)
* Clinical improvement:	
* Persistence dragging pain	1 (5%)
* Size of swelling:	
* Disappeared	19 (95%)
* Increased	0
* Persistent	1 (5%)
* Type of morbidity:	
* Secondary hydrocele	0
* Sperm count:	
* Mild improvement	11 (55%)
* Good improvement	6 (30%)
* The same	3 (15%)

Table (14): Details of operative data for group III

Operative Data	Group III (20 pt.)
* Mean operative time	± 29 min. (20-45) minutes
* Intra operative complications:	
* Insufflation:	
* Cardiac arrhythmias	4 (20%)
• Extrasystoles	3 (15%)
• Asytrole	1 (5%)
* Difficult insufflation	2 (10%)
* Surgical emphysema	1 (5%)
* Serosal tear	0
* Mesentric haematoma	0
* Bleeding:	
* From trochar site	2 (10%)
* From major vessel	0
* From mesoappendix	1 (5%) clipped
* From omentum	0
* Injuries:	
* Cecum	0
* Urinary bladder	0
* Loops of intestine	0
* Visualization of the appendix	
* Adequate.	16 (80%)
* Non. to other loops	4 (20%)
* Other pathology detected	
* Disturbed ovarian cyst	1 (5%)
* Faliure and conversion to open	1 (5%)

Table (15): The postoperative data of group III

Postoperative complications	Group III (20 pt.)
* Mean hospital stay	± 1 days (1-3) days
* Sever pain	4 (20%)
* Ileus	2 (10%)
* Fever upto 38.5°C	3 (15 %)
* Reactionary haemorrhage	0
* Wound infection	1 (5%)
* Others:	
* Chest infection	2 (10%)
* Deep vein thrombosis	0
* Uncontrolled D.M.	1 (5%)
* Myocardial ischemic attack	1 (5%)
* Mortality	0

Table (16): The incidence of improvement and the postoperative morbidity that recorded among studied patients of group III one year postoperatively

Postoperative follow up	Group III (20 pt.)
* Clinical improvement:	
* Symptoms relieere	19 (95%)
* Persistence of mild symptoms	1 (5%)
* Aggravation of symptoms	0
* Type of morbidity:	
* Wound infection	1 (5%)
* Incisional hernia	1 (5%)
* Abdominal abscess	0
* Faecal fistula	0
* Portal pyemia	0

Table (17): Details of operative data for group IV

Operative Data	Group IV (10 pt.)
* Mean operative time	± 127 min. (95-188) minutes
* Intra operative complications:	
* Insufflation:	
* Cardiac arrhythmias	2 (20%)
• Extrasystoles	2 (20%)
• Asytole	0
* Difficult insufflation	1 (10%)
* Surgical emphysema	0
* Serosal tear	0
* Mesentric haematoma	0
* Bleeding:	
* From trochar site	1 (10%)
* Short gastric vessels	1 (10%) (clipped)
* Branch of lt. Phrenic artery	0
* Injuries:	
* Spleen	1 (10%) (Sutured)
* Esophagus	0
* Stomach	1 (10%) (Sutured)
* Vagus nerve	0
* Lt. Lobe of liver	0
* Colon	0
* Faliure and conversion to open	0

Table (18): The postoperative data of group IV

Postoperative complications	Group IV (10 pt.)
	± 3 days (2-7) days
* Mean hospital stay	2 (20%)
* Sever pain	1 (10%)
* Ileus	2 (20%)
* Fever upto 38.5°C	0
* Reactionary haemorrhage	1 (10%)
* Wound infection	
* Others:	2 (20%)
* Chest infection	0
* Deep vein thrombosis	1 (10%)
* Uncontrolled D.M.	0
* Myocardial ischemic attack	0
* Mortality	0

Table (19): The incidence of improvement and the postoperative morbidity that recorded among studied patients of group IV one year postoperatively

Postoperative follow up	Group IV (10 pt.)
* Clinical improvement:	
* Mild improvement	3 (30%)
* Complete improvement	5 (50%)
* Persistence of some symptoms	2 (20 %)
* Endoscopic improvement	6 (60%)
* Type of morbidity:	
* Heart burn	3 (30%)
* Dysphagia	1 (10%)
* Gas bloating syndrome	2 (20%)
* Insbility to belch	1 (10%)
* Nausea	2 (20 %)
* Inability to vomiting	1 (10%)
* Diarrhoea	1 (10%)
* Persistence respiratory symptoms	1 (10%)