

**Table 1: patient characteristics**

		<b>Sleeve group</b> <b>(n=40)</b>	<b>Bypass group</b> <b>(n=40)</b>	<b>P</b>
<b>Age (years)</b>		35.88 ± 8.03	34.98 ± 7.75	0.611
<b>Sex</b>	<b>Male</b>	20 (50%)	19 (47.5%)	0.823
	<b>Female</b>	20 (50%)	21 (52.5%)	
<b>Height (cm)</b>		163.75 ± 5.96	159.4 ± 6.62	<b>0.003*</b>
<b>Weight (kg)</b>		121.4±12.26	122.3±5.56	0.674
<b>BMI (kg/m<sup>2</sup>)</b>		46.02±6.48	45.96±6.3	0.971
<b>Marital status</b>	<b>Single</b>	21 (52.5%)	19 (47.5%)	0.655
	<b>Married</b>	19 (47.5%)	21 (52.5%)	
<b>Comorbidities</b>	<b>Hypertension</b>	23 (57.5%)	18 (45%)	0.263
	<b>Diabetes type II</b>	19 (47.5%)	16 (40%)	0.499
	<b>Dyslipidaemia</b>	40 (100%)	38 (95%)	0.493

Data are presented as mean ± SD or frequency (%). \* Significant p value <0.05. BMI: Body mass index.

**Table (2): weight loss outcomes; (Data are presented as mean  $\pm$  SD or frequency (%)).**

		Sleeve group (n=40)	Bypass group (n=40)	P
Hospital stays (days)		1.65 $\pm$ 0.66	1.68 $\pm$ 0.66	0.866
Time of surgery (min)		101.8 $\pm$ 15.63	120.63 $\pm$ 12.43	<0.001*
Percentage of Total	After 3 months	16.35 $\pm$ 12.75	14.9 $\pm$ 5.97	0.517
Weight Loss (TWL%)	After 6 months	28.15 $\pm$ 11.06	28.5 $\pm$ 5.41	0.858
	After 1 year	44.7 $\pm$ 7.86	46.03 $\pm$ 5.16	0.375
Percentage of	After 3 months	37.45 $\pm$ 28.76	31.53 $\pm$ 13.72	0.243
Excess Weight	After 6 months	65.33 $\pm$ 25.62	59.98 $\pm$ 13.26	0.244
Loss(EWL%)	After 1 year	103.53 $\pm$ 19.11	96.85 $\pm$ 13.88	0.078
Use of Drain		14 (35%)	17 (42.5%)	0.491

**Table 3: Comorbidities resolutions of the studied groups (Data are presented as frequency (%))**

		Sleeve group (n=40)	Bypass group (n=40)
Preoperative hypertensive patients		23 (57.5%)	18 (45%)
Postoperative status of hypertensive patients	Improvement	10 (43.5%)	3 (16.7%)
	Resolution	9 (39.1%)	13 (72.2%)
	No change	4(17.4%)	2(11.1%)
Preoperative diabetic patients		19 (47.5%)	16 (40%)
Postoperative status of diabetic patients	Improvement	5 (26.3%)	2 (12.5%)
	Resolution	12 (63.2%)	13 (81.3%)
	No change	2(10.5%)	1(6.2%)
Preoperative patients with dyslipidaemia		40 (100%)	38 (95%)
Postoperative status of patients with dyslipidemia	Improvement	5 (12.5%)	5 (13.2%)
	Resolution	30 (75%)	31 (81.6%)
	No change	5(12.5%)	2(5.3%)

**Table 4: Laboratory investigations at 3, 6, and 12 months after surgery in both groups.**

		Sleeve group (n=40)	Bypass group (n=40)	P
<b>Hba1c %</b>	<b>Preoperative</b>	7.03±1.25	7.25±1.32	0.435
	<b>After 3 months</b>	6.05±1.01	6.35±1.13	0.209
	<b>After 6 months</b>	5.36±0.89	5.45±0.9	0.664
	<b>After 1 year</b>	4.64±0.77	4.4±0.54	0.111
<b>Iron (mcg/dL)</b>	<b>Preoperative</b>	93.98±10.41	95.5±10.65	0.519
	<b>After 3 months</b>	82.75±10.06	77.35±8.87	<b>0.013*</b>
	<b>After 6 months</b>	73.73±11.69	64.3±7.59	<b>&lt;0.001*</b>
	<b>After 1 year</b>	63.08±17.59	44.83±4.83	<b>&lt;0.001*</b>
<b>Ferritin A (ng/mL)</b>	<b>Preoperative</b>	161.15±15.69	158.28±11.78	0.357
	<b>After 3 months</b>	154.68±22.11	134.98±11.44	<b>&lt;0.001*</b>
	<b>After 6 months</b>	167±31.62	123.7±14.76	<b>&lt;0.001*</b>
	<b>After 1 year</b>	161.08±45.6	96.7±7.26	<b>&lt;0.001*</b>
<b>HDL (U/L)</b>	<b>Preoperative</b>	34.2±2.11	33.03±1.83	<b>0.01*</b>
	<b>After 3 months</b>	36.38±2.28	35.75±1.77	0.175
	<b>After 6 months</b>	39.65±3.01	39.13±2.65	0.410
	<b>After 1 year</b>	42.95±4.26	41.6±2.72	0.095
<b>LDL (U/L)</b>	<b>Preoperative</b>	131.38±9.99	129.8±11.28	0.511
	<b>After 3 months</b>	123.45±11.97	119.85±18.06	0.297
	<b>After 6 months</b>	115.78±12.31	142.5±179.03	0.349
	<b>After 1 year</b>	100.88±13.63	95.38±12.35	0.062
<b>Triglycerides (mg/dL)</b>	<b>Preoperative</b>	218.85±14.84	216.78±17.3	0.566
	<b>After 3 months</b>	188.48±12.55	192.73±8.61	0.081
	<b>After 6 months</b>	161.23±14.75	161.83±13.33	0.849
	<b>After 1 year</b>	140.5±14.62	133.25±11.96	<b>0.017*</b>
<b>Electrolytes</b>				
<b>Ca (mg/dL)</b>	<b>Preoperative</b>	10.68±1.73	10.43±1.13	0.447
	<b>After 3 months</b>	10.8±1.45	9.8±1.34	<b>0.002*</b>
	<b>After 6 months</b>	10.73±1.4	9.15±1.08	<b>&lt;0.001*</b>
	<b>After 1 year</b>	10.63±1.85	8.78±1.05	<b>&lt;0.001*</b>

(Data are presented as mean ± SD. \* Significant p value <0.05. Hba1c: Haemoglobin A1C, HDL: High-density lipoprotein, LDL: Low density lipoprotein.)

**Table 5: Early and late complications.**

<b>Complications</b>	<b>Sleeve group (n=40)</b>	<b>Bypass group (n=40)</b>	<b>Management</b>
<b>Wound complications</b>	3	2	Medical treatment
<b>Impaired renal function</b>	1	-	Medical treatment
<b>Hepatitis and elevated liver enzymes</b>	-	1	Medical treatment
<b>Urinary tract infection</b>	-	1	Medical treatment
<b>Calcular Cholecystitis</b>	2	5	Laparoscopic cholecystectomy
<b>GERD, Hiatal hernia repair</b>	1	-	Laparoscopic hiatoplasty
<b>Iron deficiency anemia</b>	1	1	Medical treatment
<b>Internal herniation</b>	-	2	Laparoscopic repair of the mesenteric defect
<b>Port site hernia</b>	-	1	Surgical repair
<b>Dumping syndrome</b>	-	1	Dietary control
<b>Reoperation rate</b>	<b>3</b>	<b>8</b>	