Results

Firstly, for the operative time of LN dissection and blood loss, there was statistically significant decrease in the bipolar group than clips and diathermy regarding operative time and blood loss (P< 0.05). While there was no statistically significant difference between clip and diathermy group regarding blood loss (P1>0.05) as shown in table (1)

As regarding intraoperative complications, incidence in groups was 3(6.7%), 18(40%) and 3(6.7%) in three studied groups respectively. There was statistically significant increase in diathermy group than group clips and bipolar groups regarding number of patients with intraoperative obturator jerk and Vascular injury (P<0.05), this clarifies that diathermy has been attributed with higher incidence of intraoperative complications than clips and bipolar. While there was no statistically significant difference regarding ureteral injury (P> 0.05) as shown in table (2)

As regard the drain output, there was statistically significant decrease in bipolar group than clips and diathermy groups regarding drain output in 5 days (P<0.05) and amount of the drain output was the highest in the group A using clips. As shown in table (3)

The incidence of postoperative lower limb vascular compromise it was highest in the diathermy group (P<0.05) as shown in table (4)

In table (5) shows that using diathermy was more attributed with the highest risk of postoperative Lower limb lymphedema (P<0.05) in comparison to clips and bipolar. lymphorrhea incidence was the least in bipolar group than clips and diathermy groups (P<0.05 lymphocele formation was highest in clips (P<0.05)

All lymphatic complications were treated conservatively except for 15 cases in the clip group; only 6 cases of lymphocele required US guided aspiration and 9 cases of lymphorrhea: needed subcutaneous injection of octreotide, and 3 cases of lymphorrhea in the diathermy

group treated by subcutaneous injection of octreotide. No cases in the bipolar group required intervention.

Tables:

Table (1): Comparison between the three studied groups regarding operative time and blood loss

	Group A Clips "n=45"	Group B Monopolar "n=30"	Group C Bipolar "n=45"	ANOVA Pvalue	P1 P2 P3
Operative time of LN dissection (mins)					
Range	25.0-45.0	25.0-40.0	20.0-35.0		0.025*
Mean	36.7	32.4	25.7	18.52	0.001*
SD	5.4	4.7	4.2	0.003*	0.001*
Blood loss (cc)					
Range	40.0-150.0	40.0-150.0	20.0-60.0	22.8	0.399
Mean	67.7	64.5	38	0.001*	0.001*
SD	28.1	32.7	10.5		0.004*

Table (2): Comparison between the three studied groups regarding intraoperative complications

	Group A Clips "n=45"		Group B monopolar "n=30"		Group C Bipolar "n=45"		X^2 P value	P1 P2 P3
	No	%	No	%	No	%		
Number of patients with intraoperative complications	3	6.7	18	60.0	3	6.7	0.011*	0.016* 1.0 0.016*
Obturator jerk	0	0.0	15	50.0	3	6.7	0.001*	0.001* 0.89 0.001*
Ureteral injury	0	0.0	0	0.0	0	0.0	-	0.002*
Vascular injury	3	6.7	12	40.0	0	0.0	0.002*	0.001* 0.89 0.001*
IIA injury	3	6.7	0	0.0	0	0.0	-	-
EIA spasm	0	0.0	12	40.0	0	0.0	-	-

Table (3): Comparison between the three studied groups regarding drain output

	Group A Clips "n=45"	Group B Monopolar "n=15"	Group C Bipolar "n=45"	ANOVA P value	P1 P2 P3
Drain output in 5 days (ml)					
Range	650.0-2100.0	700.0-1300.0	100.0-3000.0	19.85	0.022*
Mean	1320.0	990.0	496.7	0.001*	0.001*
SD	451.9	219.6	714.1		0.023*

Table (4): Comparison between the three studied groups regarding the relation between method used and the lower limb vascular compromise:

Pre-operative findings lower limb duplex	Group A Clips "n=45"		Group B Monopolar "n=15"		Group C Bipolar "n=45"		X^2 P value	P1 P2 P3
Normal	45	100.0	27	90.0	45	100.0	0.161	-
PSV increased	0	0.0	2	10.0	0	0.0	0.922 N.S.	-
Post-operative LL vascular compromise								
No	45	100.0	18	60.0	45	100.0	7.087	0.033*
Yes	0	0.0	8	40.0	0	0.0	0.028*	- 0.033*
Lower limb duplex (post operative PSV)								
`PSV not increased	45	100.0	9	30.0	45	100.0	18.390	0.001*
`PSV increased	0	0.0	21	70.0	0	0.0	0.001*	- 0.001*

Table (5): Comparison between the three studied groups regarding incidence of postoperative lymphatic complications

	Group A Clips "n=45"		Group B Monopolar "n=30"		Group C Bipolar "n=45"		Test P value	P1 P2 P3
	No	%	No	%	No	%		
Lymphorrhea								0.856
Yes	18	40.0	12	40.0	3	6.7	8.27	0.030*
No	24	60.0	18	60.0	42	93.3	0.019*	0.026*
Lymphocele formation								0.046*
No	30	66.7	27	90.0	45	100.0	X^2 4.16	0.013*
Yes	15	33.3	3	10.0	0	0.0	0.041*	0.89
Lower limb lymphedema								
No	**42**	93.3	**18**	60.0	45	100.0	13.11	0.013*
Yes	3	6.7	12	40.0	0	0.0	0.007*	0.75 0.003*
No. of patients without complication	21	46.7	9	30.0	42	93.3	11.8 0.001*	0.031* 0.002*
No. of patients with complication	24	53.3	21	70.0	3	6.7		0.001*