RESULTS

These results were classified accordingly as 4 categories:

1- **Patient's characteristics.**

2- **Sentinel lymph node characteristics.**

3- **Accuracy of sentinel lymph nodes mapping technique and affecting factors.**

4- **Axillary lymph node characteristics.**

I. **Patients characteristics:**

1- Patients age

The range of patients age between 33-70 years and according to this patients age.

9 patients (15%) presented with an age range of 33-40 years.

22 patients (36.6%) with arrange range of 40-50, patients

24 patients (40%) with an age range 50 – 60 yeas and

5 patients (8.3%) patients with an age range of 60 – 70 years.

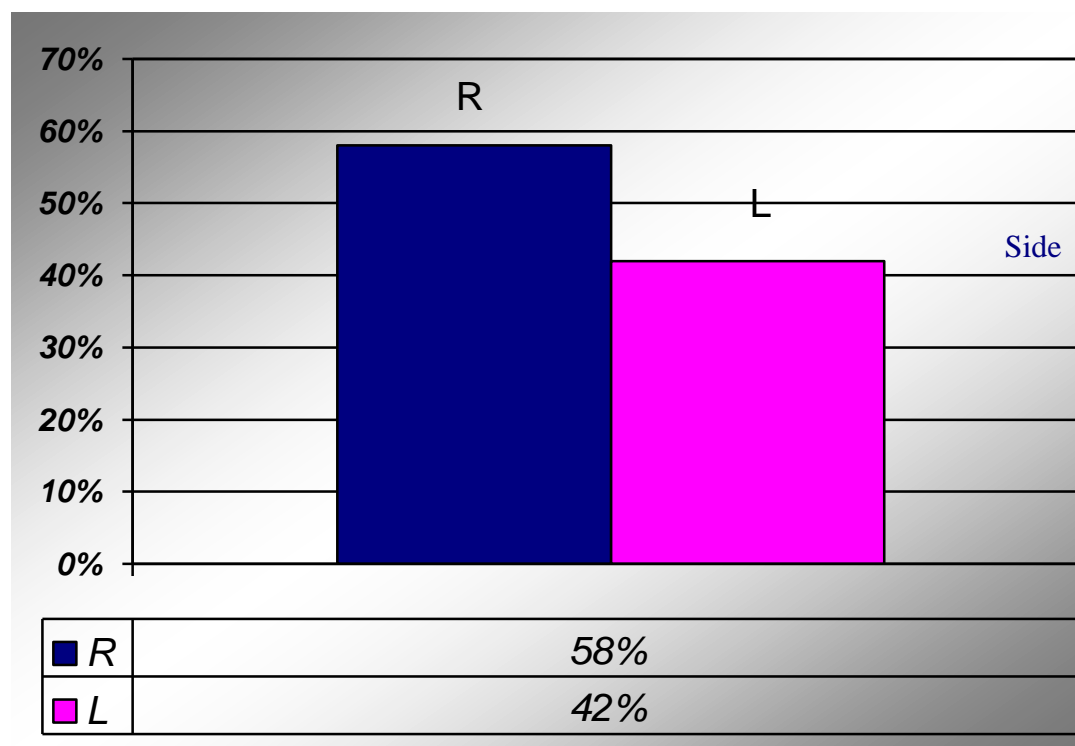| Age Interval	No. of Patients	Percentage
33 ----- 40 y	9	15.00%
40 ----- 50 y	22	36.6%
50 ----- 60 y	24	40%
60 ------ 70 y	5	8.3%
Total	60	100%

2- Patients and tumour side affected

As regards side of breast affected.

35 patients (58%) were right sided and

25 patients (42%) were left sided breast carcinoma.

Patient and Tumour side affected

Group side	Right		Left		P. Value
A	13	65%	7	35%	>0.05
B	12	60%	8	40%	>0.05
C	10	50%	10	50%	>0.05
Tot.	35	58%	25	42%	

■ R	58%
■ L	42%

3- Patients and tumor site :

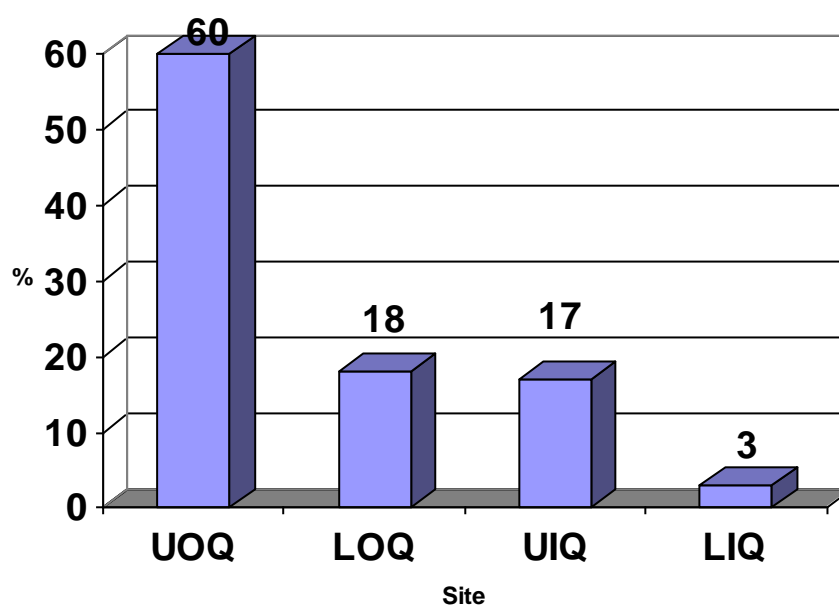As regards tumour site affected

36 patients (60%) were at UOQ,

11 patients (18%) were at LOQ.

10 Patients (17%) were at UIQ.

And 3 patients (5%) were at LIQ.

Patient and Tumour site

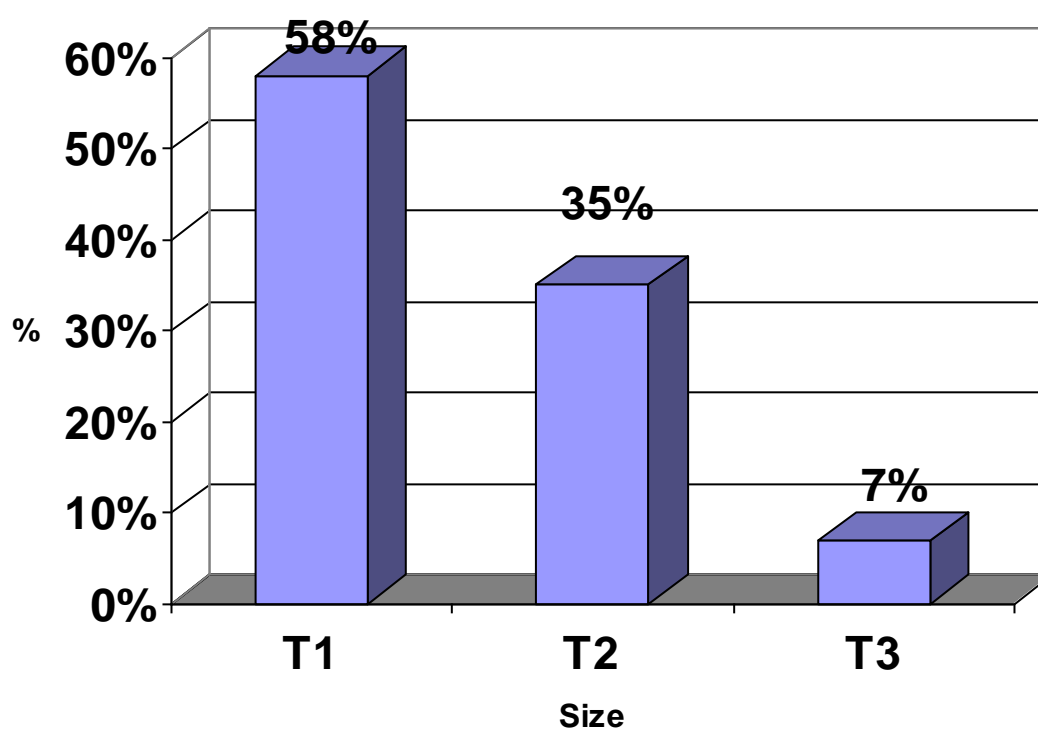| Site Group	UOQ		LOQ		UIQ		LIQ	
A	10	50%	4	20%	4	20%	2	10%
B	12	60%	4	20%	3	15%	1	5%
C	14	70%	3	15%	3	15%	0	0%
Tot.	36	60%	11	18%	10	17%	3	5%

4- Patients and tumor size:

As regard tumor size, 35 patients (58%), presented by T1, 21 patients (35%) presented by T2 and 4 patients were T3 tumour.

Patient and Tam our size

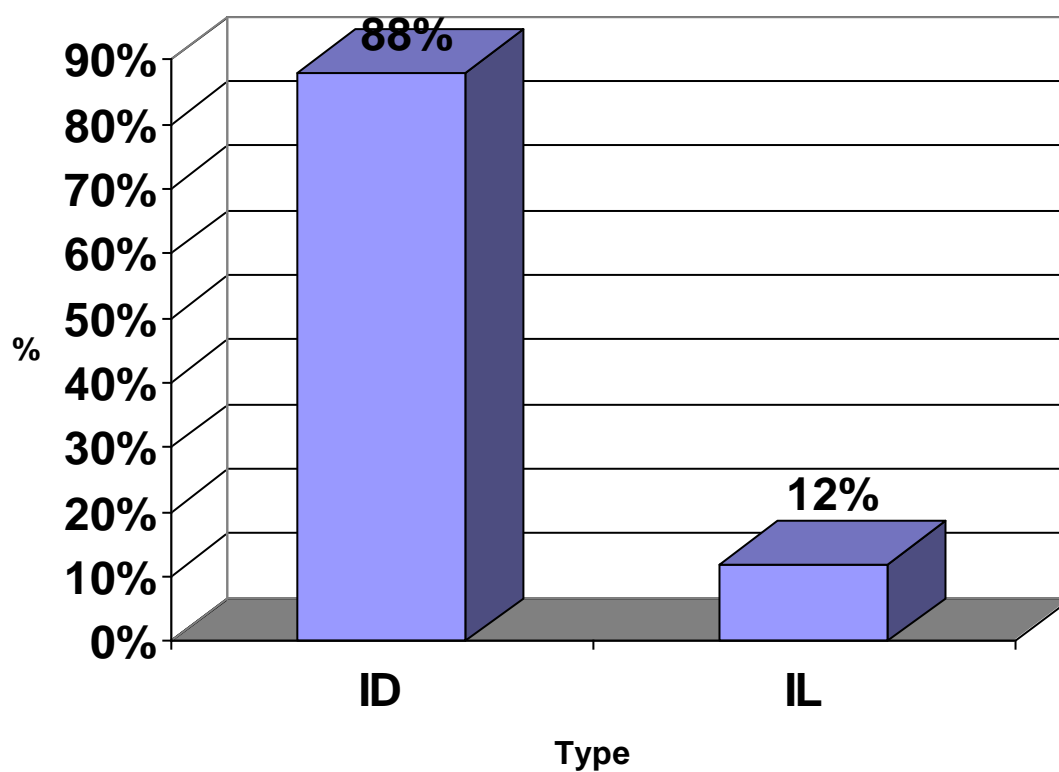| Size\Group	T1		T2		T3	
A	11	55%	7	35%	2	10%
B	10	50%	9	45%	1	5%
C	14	70%	5	25%	1	5%
Tot.	35	58%	21	35%	4	7%

5- Patients and pathological size:

As regards pathological size in each groups 20 patients presented with size change from 1.2 cm → 5 cm, 20 patients with size range 1.3 cm → 5.6 cm and 20 patients with range .2cm → 5.3 cm.

Pathological size / Group	Range in cm	Mean
A	1.2 ⟶ 5	3.1
B	1.3 ⟶ 5.6	3.45
C	1.2 ⟶ 5.3	3.25

6- Patients and histological type

As regards, type 53 patients 88% were Invasive ductal (I.D.) and 7 patients (12%) were invasive lobular carcinoma.
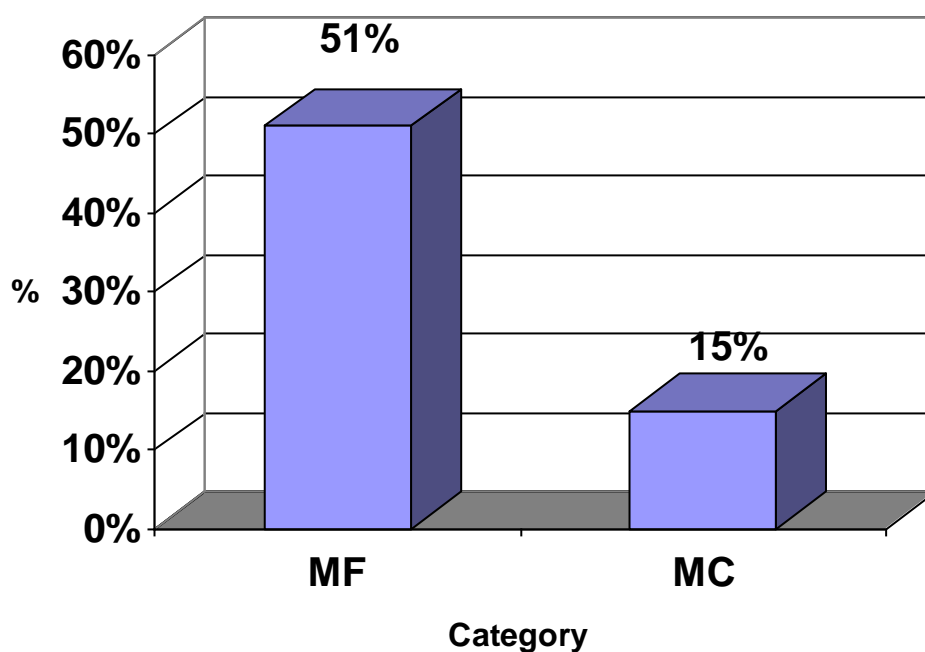
Type Group	ID		IL	
A	18	90%	2	10%
B	17	85%	3	15%
C	18	90%	2	10%
Tot.	53	88%	7	12%

7- Patients and categories:

As regards categous 51 patients (85%) were Multifocal (MF) and 9 patients 15% wee multicentenic breast cancer.

Category \ Group	MF		MC	
A	18	90%	2	10%
B	17	85%	3	15%
C	16	80%	4	20%
Tot.	51	85%	9	15%

II. Sentinel lymph node characteristics:

1- SLN and tumour side:

As regards the relation between S.L.N and the side of the tumour
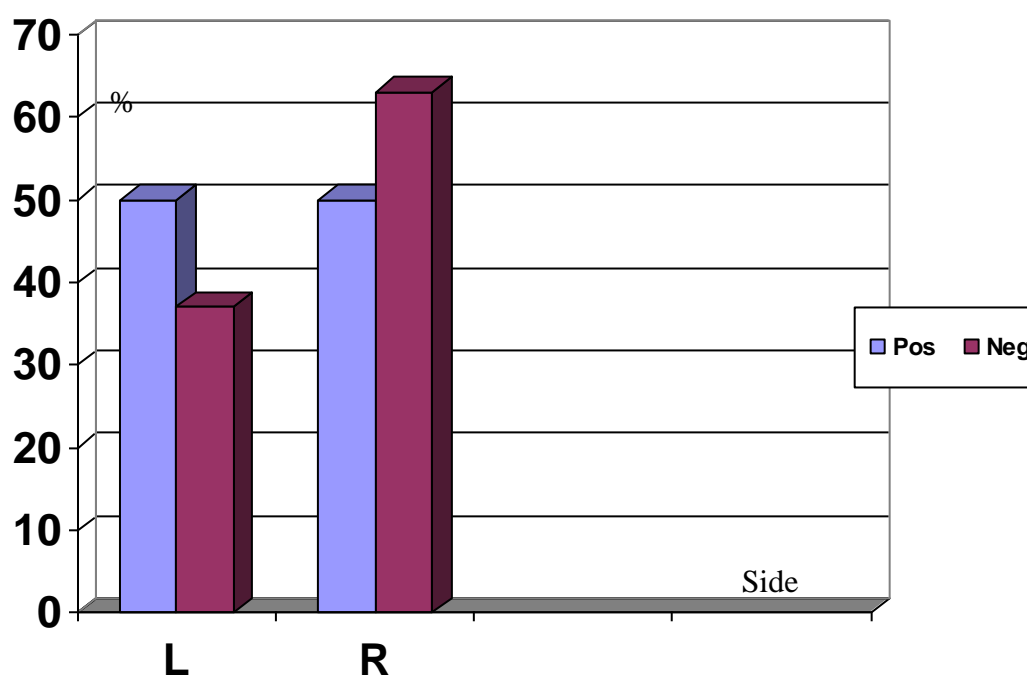
In the S.L.N. positive group of patients.

15 patients (50%) were at Rt breast. And 15 patients 50% were at left Breast.

In S.L.N. negative group.

19 patients (63%) were at Rt breast all 11 patients (37%)

were at left Breast.

SLN and Tumour side

Side\Group	SLN								P. Value
	Positive No.30				Negative No.30				
	R		L		R		L		
A	3/9	33%	6/9	67%	9/11	82%	2/11	18%	>0.05
B	5/10	50%	5/10	50%	7/10	70%	3/10	30%	>0.05
C	7/11	64%	4/11	36%	3/9	33%	6/9	67%	>0.05
n=60	15/30	50%	15/30	50%	19/30	63%	11/30	37%	

2- SLN and tumour site:

As regards S.L.N. detection and its affection by tumour site in each quadnant of the breast.

a. In S.L.N. positive group of patients.

20 patients (67 %) were at UOQ.

5 patients (17 %) were at LOQ.

4 patients (13 %) were at UIQ.
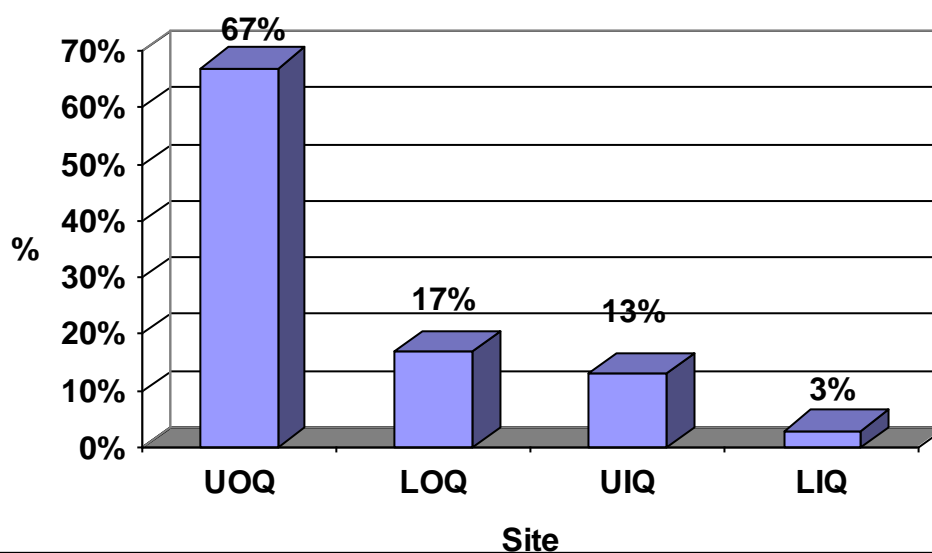
1 patients (3%) were at LIQ.

p-value > 0.05

SLN detection and tumou site:

Ve + group   No = 30.

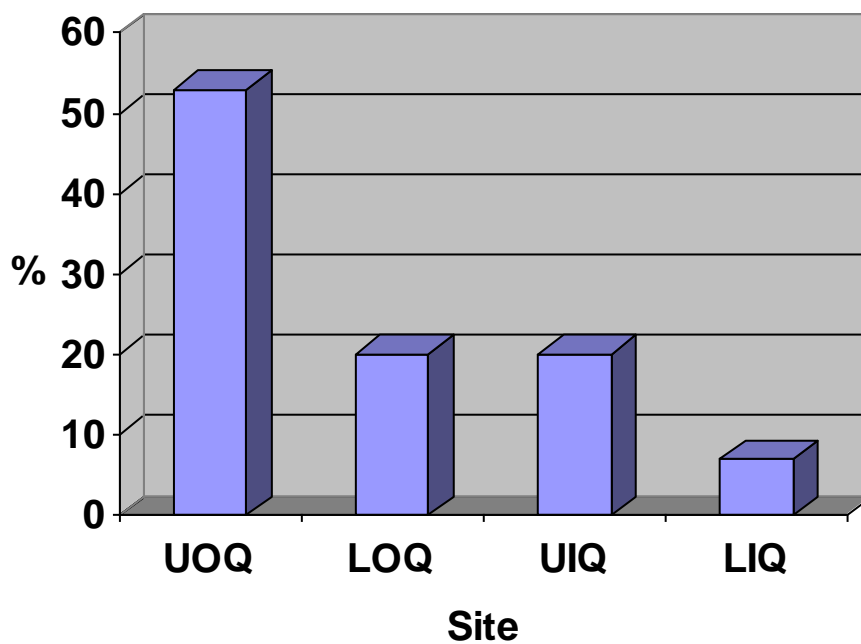| Site / Group	UOQ No.	UOQ %	LOQ No.	LOQ %	UIQ No.	UIQ %	LIQ No.	LIQ %	P. Value > .05
A	3/9	33%	1/9	11%	4/9	44%	1/9	11%	> .05
B	8/10	80%	2/10	20%	0/10	0%	0/10	0%	> .05
C	9/11	82%	2/11	18%	0/11	0%	0/11	0%	> .05
Total	20/30	67%	5/30	17%	4/30	13%	1/30	3%	> .05

b. In S.L.N. negative group of patients

16 patients (53 %) were at UOQ.

6 patients   (20 %) were at LOQ.

6 patients   (20%) were at UIQ.

2 patients   (7 %) were at LIQ.

Site Group	UOQ		LOQ		UIQ		LIQ		P. Value
	No.	%	No.	%	No.	%	No.	%	
A	7/11	64%	3/11	27 %	0/11	0%	1/11	9%	> .05
B	4/10	40%	2/10	20 %	3/10	30%	1/10	10%	> .05
C	5/9	56%	1/9	11 %	3/9	33%	0/9	0%	> .05
Total	**16/30**	**53%**	**6/30**	**20%**	**6/30**	**20%**	**2/30**	**7%**	**> .05**

3- S.L.N. detection and axillary lymph node metastasis:

As regards SLN detection and its relation with remaining axillary lymph nodes dissection (ALN.D.)

a. In SLN positive group of patients

19 patients (31.6 %) were ALND positive while 11 patients (18.3%) were ALND negative for metastasis.

b. In SLN negative group of patients

9 patients (15%) were ALND positive while 21 patients (35 %) were ALND negative for metastasis.

Number of Patients N=60 (100%)	Sentinel lymph Nodes	Axillary lymph Nodes
19/60	Positive	Positive
11/60	Positive	Negative
9/60	Negative	Positive
21/60	Negative	Negative

SLN and atillany metastasis

			Axillary Metast							
			+ve			-ve				
			(A)	(B)	(C)	(A)	(B)	(C)	Total	
SLN	+ve	(A)	5	--	--	4	--	--	9	
		(B)	--	6	--	--	4	--	10	30
		(C)	--	--	8	--	--	3	11	
	-ve	(A)	4	--	--	7	--	--	11	
		(B)	--	3	--	--	7	--	10	30
		(C)	--	--	2	--	--	7	9	
		Total	9	9	10	11	11	10	60	
			28			32				

As regard the accuracy of SLNB in each group;

In group A blue dye the accuracy was 80%

In group B radio isotope tracer the accuracy was 85%

In group C by both blue dye and radio isotope was 90% .

	Accuracy		☿Specificity		Sensitivity	
Group (A)	16/20	80%	7/11	64%	5/9	56%
Group (B)	17/20	85%	7/11	64%	6/9	67%
Group (C)	18/20	90%	7/10	70%	8/10	80%
Total	**51/60**	**85%**	**21/32**	**66%**	**19/28**	**68%**

As regard the false negative rate

In group A 20% was false negative

In group B 15% was false negative

In group C 10% was false negative .

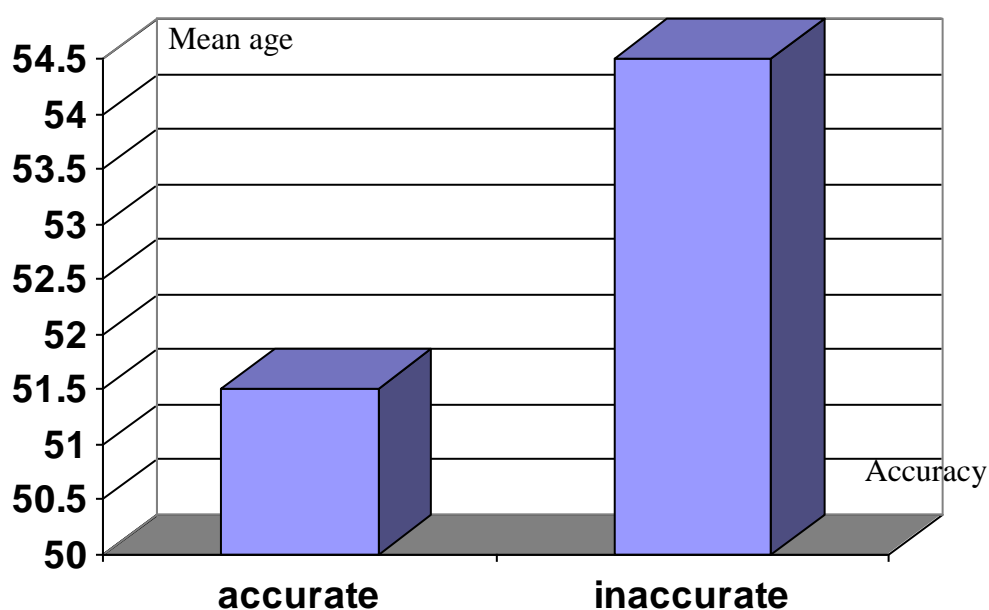|	Only SLN Axillary Disease		Negative Predictive Value		Positive Predictive Value		False - Negative Rate	
(A) Group	4/9	44%	7/11	64%	5/9	56%	4/20	20%
(B) Group	4/9	44%	7/10	70%	6/10	60%	3/20	15%
(C) Group	3/10	30%	7/9	78%	8/11	73%	2/20	10%
Total	**11/28**	**39%**	**21/30**	**70%**	**19/30**	**63%**	**9/60**	**15%**

III. Accuracy of SLN mapping technique and affecting factors:

Patients age tumor site and tumour size were all compared in accurately group of patients and the false negative group of patients to define any correlation with both groups.

1- Patients age and accuracy of lymphatic mapping:

The mean age of the patients in accurretly pnedicted SLN detected group was 51.5y while the mean age of the patients in the inaccurretly predicted group was 54.5y p. value > 0.05.

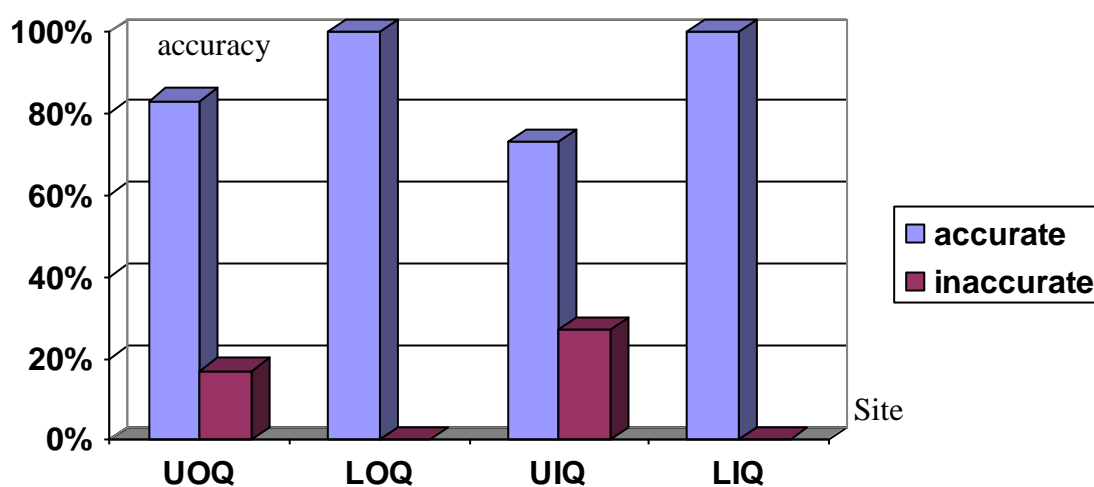| Patient age and accuracy of lymphatic mapping		
SLN	**Mean Age**	**P. Value**
Accurate	51.5	> 0.05
Inaccurate	54.5	> 0.05

2. Tumour site and accuracy of lymphatic mapping technique:

As regards an accurate phediction of SLN t axillary LN involvement and its affection by tumour site

- Of patients with UOQ tumour 30 (83%) accurate and 6 (17%) inaccurate.

- Of patients with LOQ tumours 10 (100%) accurate and 0 (0%) inaccurate.

- Of patients with UIQ tumour 8 (73%) accurate and 3 (27%) inaccurate.

- Of patients with LIQ tumour 3 (100%) accurate and 0 (0%) inaccurate.

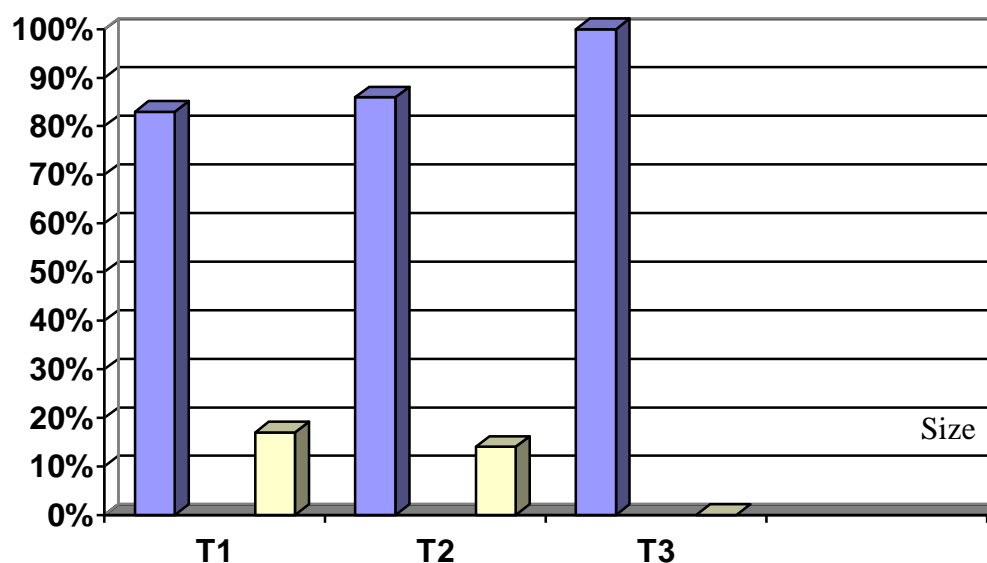|	Site and accuracy of lymphatic mapping								
	Location								P. Value
SLN	UOQ N. 36		LOQ N. 10		UIQ N. 11		LIQ N. 3		
	No.	%	No.	%	No.	%	No.	%	> .05
Accurate	30	83%	10	100%	8	73%	3	100%	> .05
Inaccurate	6	17%	0	0%	3	27%	0	0%	> .05

3. Tumor size and accuracy of lymphatic mapping technique:

- For patients with T1 tumour 29 (83%) were accurately predicted while 6 (17%) were inaccurately.

For patients with T2 tumour 18 (86%) were accurately predicted while 3 (14%) were inaccurate.

For patients with T3 tumour 4 (100%) were accurately predicted while 0 (0%) were inaccurate.

SLN	T1 N. 35		T2 N. 21		T3 N. 4		P. Value
	No.	%	No.	%	No.	%	> .05
Accurate	29	83%	18	86%	4	100%	> .05
Inaccurate	6	17%	3	14%	0	0%	> .05

IV. Factors affecting axillary lymph node metastases:

1- Patients age and its relation with axillary node metastases:

According to lymph node status and its affection by age group on the whole study group: of age group < 40 years.

5 patients (16%) negative and 4 patients (14%) positive of age 40-50

11 patients 34% -ve and 11 patients 39% -ve, of age gumm 50-60

13 patients 41% -ve and 11 patients 39% +ve and of age group 60-70 3 patients 9% -ve and 2 (7%) are +ve for metastasis.

1- Patient and its relation with node metastasis

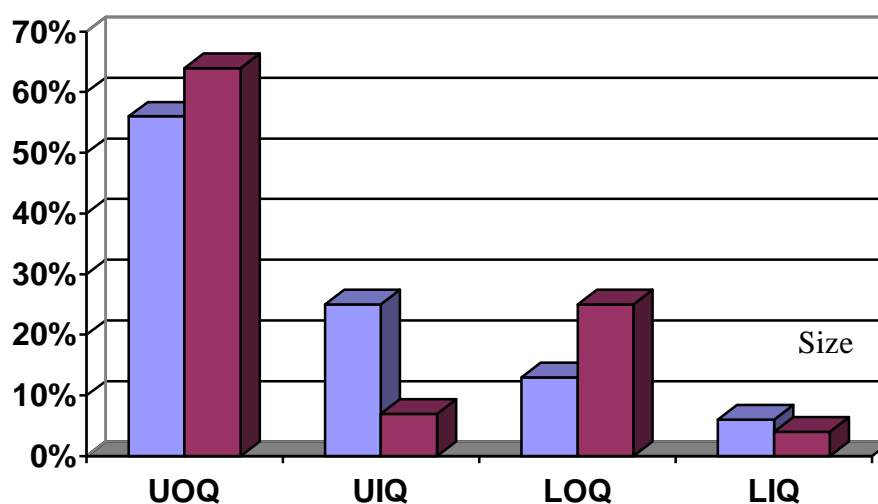| Valuables	Metastasis in axillary lymph node				P. Value
age in year	Negative L.N. n=32	%	Positive L.N. n=28	%	
<40	5	16%	4	14%	>0.05
40-50	11	34%	11	39%	>0.05
50-60	13	41%	11	39%	>0.05
60-70	3	9%	2	7%	>0.05
Total	32	100%	28	100%	

2- Tumour site its relation with axillary lymph node metastasis:

As regards L.N. status and its relation to tumour site.

- Of patients with UOQ tumor 18 patients 56% -ve and 18 patients 64% +ve.

- Of patients with UIQ tumor 8 patients 25% -ve and 2 7% are +ve

- Of patients with LOQ tumour 4 patients 13% -ve and 7 patients 25% are +ve.

- Of patients with LIQ 2 patients 6% are –ve and 1 (4%) are +ve.

Tumour site and its relation with axillary lymph node metastasis

Valuables	metastasis in axillary lymph node				P. Value
Side	Negative L.N. n=32	%	Positive .N. n=28	%	
UOQ	18	56%	18	64%	>0.05
UIQ	8	25%	2	7%	>0.05
LOQ	4	13%	7	25%	>0.05
LIQ	2	6%	1	4%	>0.05
Total	32	100%	28	100%	

3-Tumour size and its relation with axillary lymph node metastasis:

As regards patients with different tumour size and effect on lymph node metastasis:

-   of patients with T1 tumur 23 patients, 72% -ve while 12 43% are +ve.

-   Of patients with T2 tumour 8 patients 25% -ve while 13 patients 46% are +ve.

-   Of patients with T3 tumour 1 patients 3% -ve while 3 patients, 11% are +ve for metastasis.

Toumer size and its relation with axillary lymph node metastasis

Valuables	Metastasis in axillary lymph node				P. Value
Size	Negative L.N. n=32	%	Positive L.N. n=28	%	
T1	23	72%	12	43%	>0.05
T2	8	25%	13	46%	>0.05
T3	1	3%	3	11%	>0.05
Total	32	100%	28	100%	