Results

The results gained from our work were collected and analyzed graphically.

This study included 50 female patients with locally advanced breast cancer and were organized, followed and treated in Benha Hospital, National Cancer Institute and Agousa Hospital which, two regimen of therapy were used.

Group (A): Twenty five patients started with neoadjuvant chemotherapy followed by surgery.

Group (B): Twenty five patients started with surgery directly.

●Age incidence:-

The mean of age of patients of Group (A) is 47.72 and median age is 47. Ranged from 28 to 66 years. The mean of age of patients of Group (B) is 46.72 and median age is 46. Ranged from 29 to 66 years (see chart 1).

The difference between two groups are insignificant as the p value = 0.7300 according to Chi-square test.

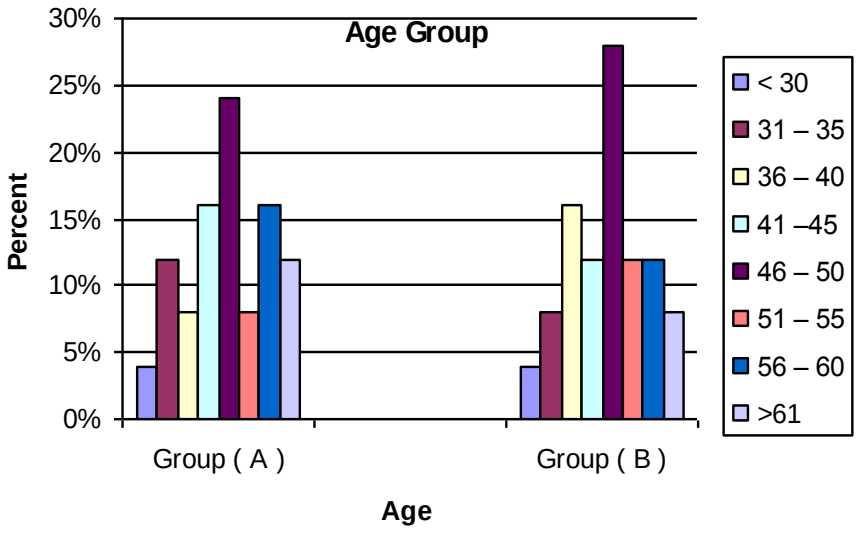


Chart (1): Showed the age.

●**Personal Data:-**

Group (A): 15 (60%) patients in the study were early menarche. 24 (96%) of this group married, 21 (84%) of them had kids and 19 (76%) of them lactating. About 16 (64%) of this group positive for contraceptive pills and 1 (4%) also positive for family history. 15 (60%) in the study were premenopausal.

Group (B): 14 (56%) patients of this group were early menarche. 23 (92%) of this group married, 22 (88%) of them had kids and 21 (84%) of them lactating. 14 (56%) of this group positive for contraceptive pills and 1 (4%) also positive for family history. 15 (60%) in the study were premenopausal [see table (12) and chart (2)].

Table (12): Show the clinical data of studied patient.

	Group (A)	**Group (B)**	P-value	Significance
●**Menarche** -Early - Late	 15(60%) 10(40%)	 14(56%) 11(44%)	>0.05	NS
●**Marital state** - Yes - No	 24(96%) 1(4%)	 23(92%) 2(8%)	>0.05	NS
●**Parity** - Yes - No	 21(84%) 4(16%)	 22(88%) 3(12%)	>0.05	NS
●**Lactation** - Yes - No	 19(76%) 6(24%)	 21(84%) 4(16%)	>0.05	NS
●**Contraceptive pills** - Yes	 16(64%)	 14(56%)	>0.05	NS

- No	9(36%)	11(44%)		
●**Menopause** - Post. - Pre.	 10(48%) 15(60%)	 9(36%) 16(64%)	>0.05	NS
●**Positive family history** - Yes - No	 1(4%) 24(96%)	 1(4%) 24(96%)	>0.05	NS

S= Significant.
NS= No significant

The difference between two groups is insignificant as the p value > 0.05.

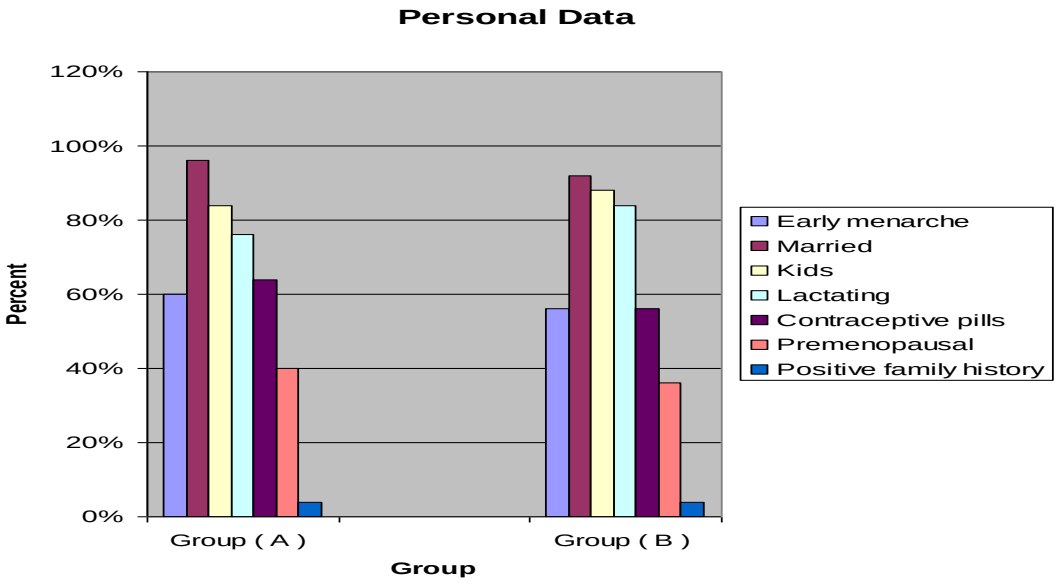
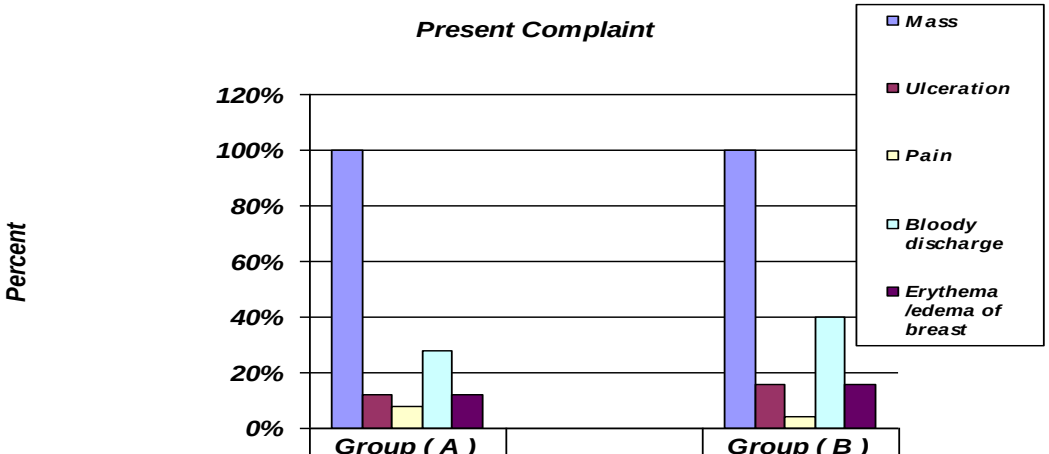


Chart (2): Showed the personal data.

● Complaint:-

This table shows the presenting complaint of two groups: All of patients of two groups complaining of mass. But differentiated in other complaints such as ulceration; 3 cases (12%) of group (A), 4 cases (16%) of group (B). Pain presented by 2 cases (8%) of group (A) but 1 case

(4%) of group (B). Bloody discharge presented by 7 cases (28%) of group (A) but 10 cases (40%) of group (B). 3 cases (12%) of group (A) complaint of edema of breast, but 4 cases (16%) of group (B). All of patients presented by axillary lymph nodes (chart 3).



	Group (A)		Group (B)
Mass	100%		100%
Ulceration	12%		16%
Pain	8%		4%
Bloody discharge	28%		40%
Erythema /edema of breast	12%		16%

Chart (3): Showed the personal complaint.

The difference between two groups is insignificant as the p value > 0.05.

●Local Manifestation:-

The highest frequency of size category lied above 5 centimeter of two groups. The two groups had similar frequency of erythema, mobile and fixed lymph node and nipple retraction, but differentiated in some manifestation such as skin dimpling 3(12%) of group (A), 4(16%) of group (B); skin ulceration 3 cases (12%) of group (A), 4 cases (16%) of group (B). And nipple discharge 10 cases (40%) of group (A), 12 cases (48%) of group (B) (table 13).

Table (13): Local Manifestation of included patients (Diseased breast).

Local manifestation	Group (A)	Group (B)	P-value	Significance
●Size: -From2 to 5 -Above 5	 1(4%) 24(96%)	 1(4%) 24(96%)	>0.05	NS
●Skin dimpling	3(12 %)	4(16 %)	>0.05	NS
●Erythema	3(12 %)	3(12 %)	>0.05	NS
●Skin ulceration	3(12 %)	4(16 %)	>0.05	NS
●Lymph node **- mobile** **- Fixed** **- Contra lateral**	 6(24%) 19(76%) -	 6(24%) 19(76%) -	>0.05	NS
●Nipple discharge	10(40 %)	12(48%)	>0.05	NS
●Nipple retraction	5(20 %)	5(20%)	>0.05	NS

The difference between two groups is insignificant as the p value > 0.05.

●T.N.M. Classification:-

According to T.N.M. classification: All patients of two groups are free of metastasis. 1 case (4%) were T2 in group (A) and also one case in group (B). 11 (44%) patients were T3 in group (A) and 10 (40%) in group (B). 13 cases (52%) were T4 in group (A) but 14 cases (56%) in group (B) (table 14).

6(24%) patients were N1 in group (A) and 7 (28%) patients in group (B). 19(76%) patients were N2 in group (A) and 18 (72%) patients in group (B) (table 14).

Table (14): TNM Classification.

TNM Classification	**Group(A) n (25)**	**Group(B) n (25)**	P-value	Significance
Tumor size:			>0.05	NS
•T 2	1(4%)	1(4%)		
•T 3	11(44%)	10(40%)		
•T4:	13(52%)	14(56%)		
-T4a	10(40%)	11(44%)		
-T4b	2(8%)	2(8%)		
-T4c	1(4%)	1(4%)		
Nodal status:			>0.05	NS
•N1	6(24%)	7(28%)		
•N2	19(76%)	18(72%)		

The difference between two groups is insignificant as the p value > 0.05.

•Staging:-

The clinical staging of the patients at the time of presentation was: 12 cases (48%) in stage IIIA in group (A) but 13 cases (52%) in group (B), while 13 cases (52%) in stage IIIB in group (A) but 12 cases (48%) in group (B).

•For group (A): The TNM for stage IIIA was [T2N2M0 in one case (4%) and T3N1M0 in 4 cases (16%) and T3N2M0 in 7 cases (28%)] and for stage IIIB [T4N1M0 in 2 cases (8%) and T4N2M0 in 11 cases (44%)].

•For group (B): The TNM for stage IIIA was [T2N2M0 in one case (4%) and T3N1M0 in 2 cases (8%) and T3N2M0 in 8 cases (32%)] and for stage IIIB [T4N1M0 in 5 cases (20%) and T4N2M0 in 9 cases (36%)] (table 15).

Table (15): Clinical staging of tumor.

Staging	Group(A)	Group(B)	P-value	Significance
• **IIIA**	12(48%)	13(52%)	>0.05	NS
• **IIIB**	13(52%)	12 (48%)	>0.05	NS

The difference between two groups is insignificant as the p value > 0.05.

• Methods of Diagnosis:-

There are many methods for diagnosis such as: Mammogram and complementary breast ultrasonography were done in all patients. In all patients the mammography showed dense irregular mass with serrated outline, the diameters of the masses ranged from 1.5 to 9 centimeters in its greatest dimension, micro calcification was observed in 18(72%) of group (A), 19(76%) of group (B) , while 3(12%) of group (A), 4(16%) of group (B) showed macro calcification (table 16).

Table (16): Mammography of Both breasts.

Mammography of diseased breast	Group (A)	Group (B)	P-value	Significance
•**Micro-calcification**			>0.05	NS
- yes	18 (72 %)	19 (76 %)		
- No	7 (28 %)	6 (24 %)		

●Macro-calcification			>0.05	NS
- yes	3 (12 %)	4 (16 %)		
- No	22 (88 %)	21 (84 %)		

● N.B:-

-All patients of two groups diagnosed with tru cut biopsy.

-Metastatic work up and full laboratory investigations were done for two groups before surgery: bilateral mammogram, chest x-ray, abdominal ultrasound and bone scan and all patients of two groups were free of distant metastases.

-All criteria before treatment of patients of two groups are statistically insignificant due to the p-value > 0.05. That to say, the two groups are comparable.

●Regimen and effect of neoadjuvant chemotherapy for group (A):-

The chemotherapeutics were tailored according to the condition of each patient. Group (A) 25 patients prone to neoadjuvant chemotherapy, 17 patients was to give the neoadjuvant chemotherapy (FAC), ten patients of stage IIIA and 7 patients of stage IIIB. Echocardiogram was done for all patients and all cases had good cardiac functions, while one patient (stage IIIA) had impaired diastolic function with ejection fraction less than (60%), so the decision for this patient was to give Novantron instead of Adriamycin (FNC) for fear of cardiac toxicity.

6 patients of stage (IIIB) received the neoadjuvant chemotherapy (FEC 100) as they were high risk patients, because of their large lesion, marked skin change and enlarged axillary lymph node but only one patient (stage IIIA) received (CMF) as the patient had small lesion, minimal skin changes and old age. This group prone to four cycles of neoadjuvant chemotherapy.

Clinical response was defined as complete (CR) if no residual tumor was identified on physical examination, partial (PR) if there was a more than 50% reduction in the size of the primary tumor, and no response (NR) if there was less than 50% reduction in the size of the primary tumor. Response rate defined as complete and partial response.

Response to neoadjuvant chemotherapy for group (A) in the form of complete response is 6 cases (24%), which are 3 cases (25%) in cases of stage IIIA and also 3 cases (23%) in cases of stage IIIB. Partial response in 14 cases (56%) in all cases but 7 cases (58%) in cases of stage IIIA, 7 cases (54%) in cases of stage IIIB. No response in 5 cases (20%) in all cases but 2 cases (17%) in cases of stage IIIA, 3 cases (23%) in cases of stage IIIB (table 17 & chart 4).

Table (17): Clinical response of group (A) to neoadjuvant chemotherapy.

Clinical response	**All patients (n=25) (%)**	**IIIA (n=12) (%)**	**IIIB (n=13) (%)**
Regimen:			
- CMF	1(4%)	1(8%)	-
- FAC	17(68%)	10(84%)	7(53%)
- FNC	1(4%)	1(8%)	-
- FEC 100	6(24%)	-	6(47%)
-Complete Response (CR)	6 (24%)	3(25%)	3(23%)
-Partial Response (PR)	14 (56%)	7(58%)	7(54%)
- No Response (NR)	5 (20%)	2(17%)	3(23%)
Response Rate	20(80%)	10(83%)	10(77%)

-Response of the tumor of breast to neoadjuvant chemotherapy based on clinical examination prior to local treatment.

-All patients had four cycles of neoadjuvant chemotherapy.

Clinical response rate is 20 cases (80%) of group (A), 10 cases (83%) of stage IIIA and 10 cases (77%) of stage IIIB (see chart 4).

Mammograms showing changes in decreasing or resolving breast cancer masses indicating chemotherapy response.

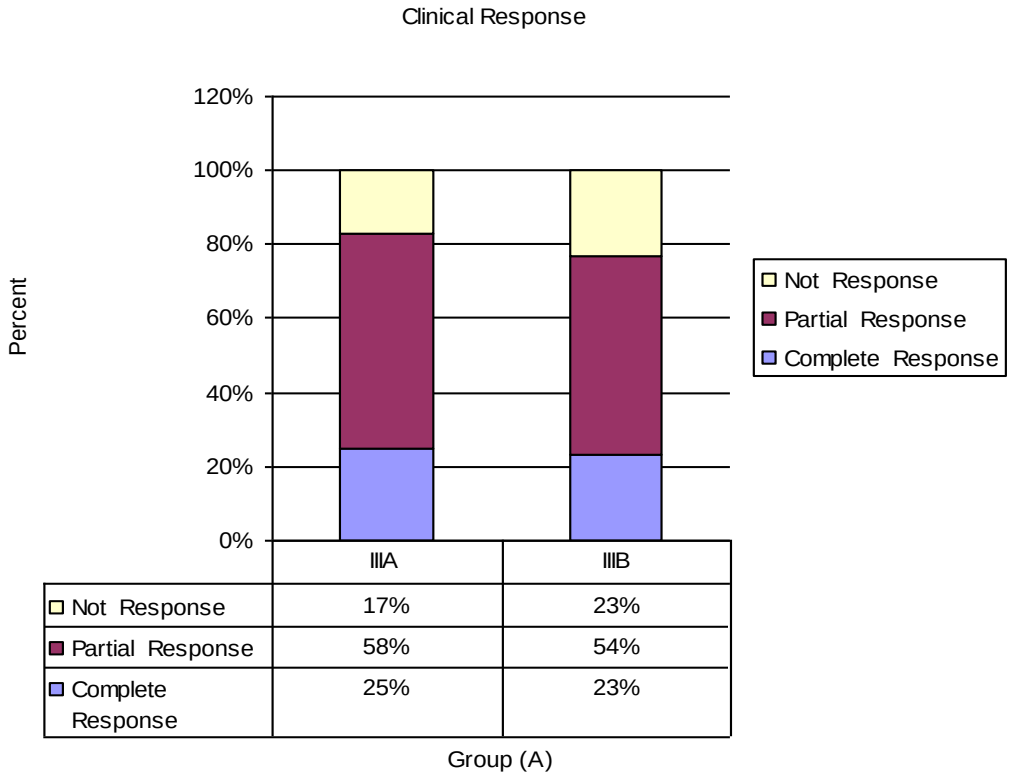


Chart (4): Showed the clinical response.

●Toxicity of chemotherapy:-

There is toxicity of neoadjuvant chemotherapy in form of 20 cases (80%) of vomiting, 3 cases (12%) of diarrhea, about 4 cases (16%) with fever but 23 cases (94%) with alopecia.

3 cases (12%) with drug allergy but 5 cases (20%) with oral toxicity. There is thromboembolic manifestation in form of only one case (table 18).

Table (18): Overall toxicity distribution of neoadjuvant chemotherapy.

Toxicity of neoadjuvant chemotherapy	Group (A)
●Vomiting	20(80%)
●Diarrhea	3(12%)
●Drug fever:	
- None	21(84%)
- < 38 C	3(12%)
- 38 – 40 C	1(4%)
- > 40 C	-
●Alopecia :	
- None	2(8%)
- Minimal hair loss	5(20%)
-Moderate patchy alopecia	5(20%)
- Complete reversible alopecia	13(52%)
●Drug allergy:	
- None	22(88%)
- Edema	2(8%)
-Bronchospasm	1(4%)
●Oral toxicity:	
- None	20 (80 %)
- Erythema	4 (16 %)
- Erythema and mouth ulcers	1 (4 %)
●Thromboembolic complication:	
- None	24 (96 %)
- Superficial phlebitis	1 (4 %)
- Deep phlebitis	-
- Embolism	-

● N.B:-

All patients (responding or not responding) for group (A) after neoadjuvant chemotherapy and group (B) had modified radical mastectomy.

●Complications of operation:-

There are intraoperative, early and late postoperative:

Intraoperative:

There are no complications from general anesthesia for two groups; duration of operation varies from 1.5 hour to three hours according to feasibility of mastectomy and dissection of axilla, there are differences of two groups of these parameters as the course of neoadjuvant chemotherapy of group (A) facilitate the operation. Time of operation: from 1.5 to 2 hour; 17 cases (68%) of group (A) but 10 cases (40%) of group (B), from 2 to 2.5 hour; 5 cases (20%) of group (A) but 8 cases (32%) of group (B) and from 2.5 to 3 hour; 3 cases (12%) of group (A) but 7 cases (28%) of group (B).

Feasibility of mastectomy and axillary dissection in 22 cases (88%) in group (A) but 15 cases (60%) in group (B). There is no hemorrhage for group (A) but two cases for group (B) [see table (19) & chart (5)].

Table (19): Intraoperative data of two groups prone to Modified Radical Mastectomy.

Intra-operative data	Group (A)	Group (B)	P-value	Significance
- Duration of operation:				
- 1.5 to 2 hour	17(68%)	10(40%)	0.029	S
- From 2to 2.5 hour	5(20%)	8(32%)	0.097	NS
- From 2.5 to 3 hour	3(12%)	7(28%)	0.041	S
-Feasibility of operation (mastectomy) and dissection of axilla:			0.041	S
-Yes.	22(88%)	15(60%)		
-No	3(12%)	8(32%)		
-Blood loss (hemorrhage).	-	2(8%)	>0.05	NS

Early postoperative complications which divided into:

All patients of two groups acquired pain and postoperative nausea and vomiting in form of 3 cases for two groups and also there are neither cardiopulmonary problems nor pneumothorax. But difference in, chest infection in form of 2 cases of group (A), 1 case in group (B), hematoma in form of 3 cases of group (A), 4 cases in group (B), skin necrosis of flaps in form of 2 cases of group (A), 4 cases in group (B), wound infection in form of 3 cases of group (A), 4 cases in group (B), lymphocoele/Seroma in form of 6 cases of group (A), 10 cases in group (B) [see table (20) & chart (6)].

Table (20): Early complications of Modified Radical Mastectomy *

Early post-operative data	Group (A)	Group (B)	P-value	Significance
-Postoperative nausea and vomiting.	3(12%)	3(12%)	>0.05	NS
-Chest infection.	2(8%)	1(4%)	>0.05	NS
-Hematoma.	3(12%)	4(16%)	>0.05	NS
-Skin necrosis of flaps.	2(8%)	4(16%)	>0.05	NS
-Wound infection.	3(12%)	4(16%)	>0.05	NS
-Lymphocoele/Seroma.	6(24%)	10(40%)	0.046	S

* Early complications were defined as the ones occurring before the start of chest wall radiotherapy or within six weeks after modified radical mastectomy.

Late postoperative complications which divided into:

Late postoperative complications are documented on physical examination. Lymphedema of upper limb is also variable for two groups as there are 5 cases of group (A) but 6 cases for group (B). Shoulder dysfunction, there are 6 cases of group (A) but 7 cases for group (B). Sensory loss, there is 6 cases of group (A) but 8 cases for group (B). Scar hypertrophy, there are 8 cases of group (A) but 6 cases for group (B).

Symptomatic keloid, there are 2 cases of group (A) but 3 cases for group (B) (see table 21).

Table (21): Late complications of modified radical mastectomy.

Late post-operative data	Group (A)	Group (B)	P-value	Significance
-Lymphedema of upper limb.	5(20%)	6(24%)	>0.05	NS
-Shoulder dysfunction.	6(24%)	7(28%)	>0.05	NS
-Sensory loss.	6(24%)	8(32%)	>0.05	NS
-Scar hypertrophy	8(32%)	6(24%)	>0.05	NS
-Symptomatic keloid	2(8%)	3(12%)	>0.05	NS

Lymphedema is divided into three grades. Grade I was seen in (40%) of patients of group (A) but (50%) of patients of group (B). Grade II was seen in (40%) of patients of group (A) but (17%) of patients of group (B). Grade III was seen in (20%) of patients of group (A) but (33%) of patients of group (B) (see table 22).

Table (22): Grading of lymphedema.

Grade	Group (A) n (5)	Group (B) n (6)
-Grade I.	2(40%)	3(50%)
-Grade II.	2(40%)	1(17%)
-Grade III.	1(20%)	2(33%)

Limitation of flexion were seen in (17%) of patients of group (A) but (14.5%) of patients of group (B). Limitation of extension were seen in (33%) of patients of group (A) but (28.5%) of patients of group (B).Limitation of abduction were seen in (17%) of patients of group (A) but (28.5%) of patients of group (B). External rotation was restricted in

(33%) of patients of group (A) but (28.5%) of patients of group (B) (see table 23).

Table (23): Shoulder Dysfunction.

Restricted movement *	Group (A) n (6)	Group (B) n (7)
-Limited flexion.	1(17%)	1(14.5%)
-Limited extension.	2(33%)	2(28.5%)
-Limited abduction.	1(17%)	2(28.5%)
-Limited external rotation.	2(33%)	2(28.5%)

- All patients had more than one restricted movement. The table shows patients according to the predominant restriction.

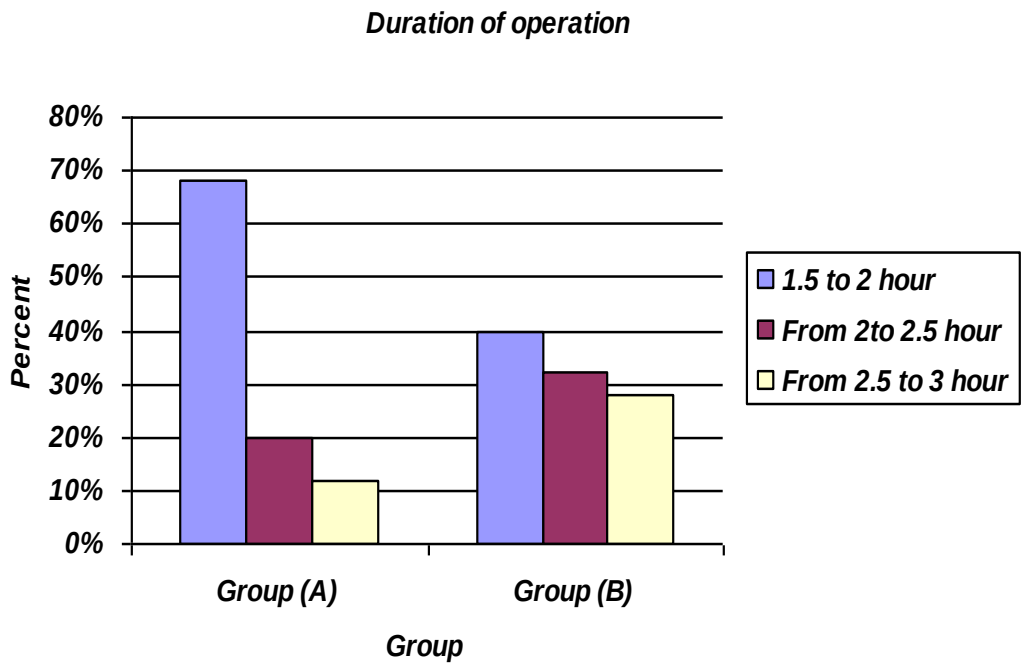


Chart (5): Showed the duration of operation.

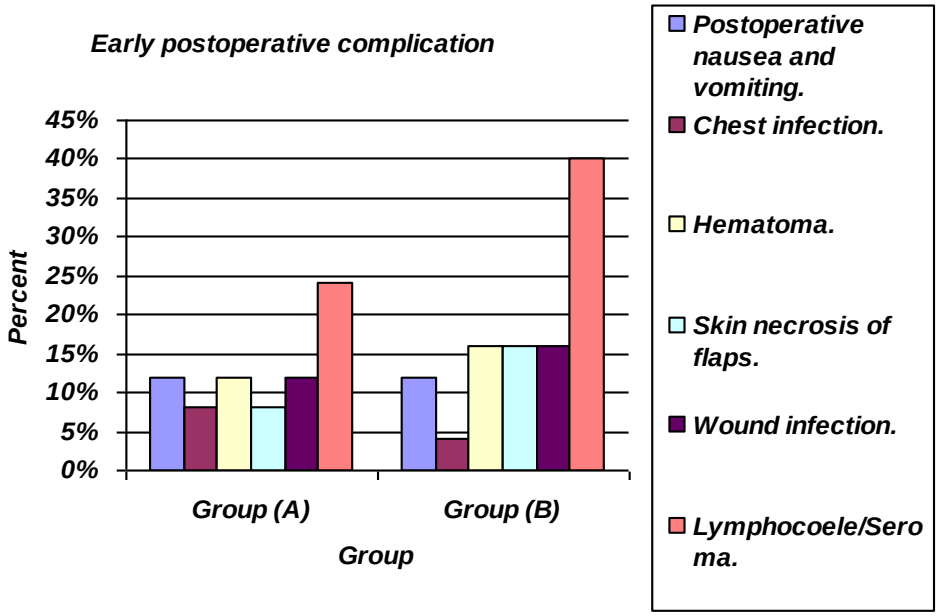


Chart (6): Showed early postoperative complications.

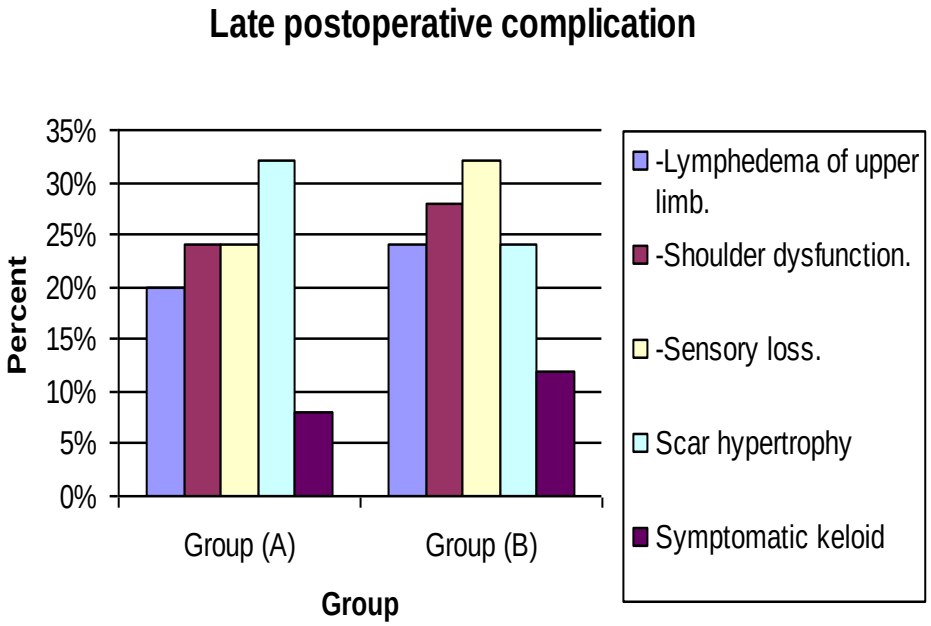


Chart (7): Showed late postoperative complications.

●Histopathological results of specimen:

Mastectomy done with safety margin of two groups. The histopathological results reveled that: the majority of cases had pathology of invasive duct carcinoma 20 cases (80%) in group (A) while 22 cases (88%) in group (B) (table 24).

Table (24): Result of histopathology.

Result	Group (A)	Group (B)	P-value	Significance
●Histopathology of specimen:			0.05	NS
-Invasive duct carcinoma	20(80%)	22(88%)		
- Intracystic carcinoma	1(4%)	_		
- Intraductal carcinoma	1(4%)	1(4%)		
-Invasive Lobular carcinoma	2(8%)	1(4%)		
-Mucoid	1(4%)	1(4%)		
●Pathological L.N.:				
-Removed LN:			0.05	NS
-From 5 – 10.	6(24%)	5(20%)		
- From 11 – 20.	12(48%)	11(44%)		
- > 20.	7(28%)	9(36%)		
-Affected LN:				
-From 0 – 5.	10(40%)	3(12%)	0.021	S
- From 6 – 10.	9(36%)	13(52%)	0.045	S
- > 10.	6(24%)	9(36%)	0.276	NS

Removed LN from axilla are variable in number for two groups as, from 5 – 10 nodes, there are 6 cases in group (A), there are 5 cases in group (B). From 11 – 20 nodes, there are 12 cases in group (A); there are 11 cases in group (B). More than 20 nodes, there are 7 cases in group (A); there are 9 cases in group (B).

Affected LN from specimen are variable in number for two groups as, from 0 – 5 nodes, there are 10 cases in group (A), there are 3 cases in group (B). From 6 – 10 nodes, there are 9 cases in group (A); there are 13 cases in group (B). More than 10 nodes, there are 6 cases in group (A); there are 9 cases in group (B).

●Estrogen/ Progesterone Receptors:-

There are 12 patients had positive estrogen receptor for group (A) but 11 patients also positive estrogen receptor for group (B) while 14 patients had positive progesterone receptor for group (A) but 13 patients also positive progesterone receptor for group (B) (table 25).

Table (25): Estrogen Receptors.

Hormonal Receptor	Group (A)	Group (B)	P-value	Significance
Estrogen receptor:			>0.05	NS
- (+ve)	12(48%)	11(44%)		
- (-ve)	13(52%)	14(64%)		
Progesterone receptor:			>0.05	NS
- (+ve)	14(64%)	13(52%)		
- (- ve)	11(44%)	12(48%)		

● N.B:-

After surgery, all patients of two groups received their adjuvant treatment in form of: chemotherapy, radiotherapy and hormonal treatment. All patients of two groups received adjuvant radiotherapy 5000 cGY divided in 25 fraction and tamoxifen 20 mg/day as an adjuvant hormonal therapy.

● Adjuvant chemotherapy:-

Adjuvant chemotherapy of group (A):-

Adjuvant chemotherapy is tailored for group (A) according to the clinical response of patients to neoadjuvant. 17 patients who received 4 cycles of FAC as neoadjuvant chemotherapy, 13 of them completed their adjuvant treatment with 3 cycles of FAC, the other 4 patients who had no response shifted to another line of adjuvant chemotherapy FEC100 for 3 cycles.

6 patients who received 4 cycles of FEC100 as neoadjuvant chemotherapy completed their adjuvant treatment with 3 cycles of FEC100 as adjuvant treatment. One patient who received 4 cycles of FNC as neoadjuvant chemotherapy and complete 3 cycles of FNC as adjuvant treatment. One patient who received 4 cycles of CMF as neoadjuvant chemotherapy and complete 3 cycles of CMF as adjuvant treatment (table 22).

Adjuvant chemotherapy of group (B):-

15 cases (60%) had 3 cycles of FAC, one case (4%) had 3 cycles of CMF and 9 cases (36%) had 3 cycles of FEC100 (table 26).

Table (26): Adjuvant chemotherapy of group (A) and group (B).

Adjuvant chemotherapy	Group(A)	Group(B)
●**FAC**	13(52%)	15(60%)
●**FNC**	1(4%)	-
●**CMF**	1(4%)	1(4%)
●**FEC100**	10(40%)	9(36%)
Total	25(100%)	25(100%)

●Follow up:-

Follow up of patients for variable periods ranging from 12 to 42 months was performed as following: regular clinical examination after 1 month, 3 months, 6 months, 9 months, 12 months at the first year and then 6 monthly per year till 42 months. The median follow up of this group was 39 months.

Local examination, mammography on the contralateral breast, chest x-ray, liver ultrasound and bone scan were done and revealed the following:

Local recurrence and distant metastasis.

The rate of local recurrence and distant metastasis for patients with locally advanced breast cancer. Group (A) which starting with neoadjuvant chemotherapy followed by adjuvant therapy was compared with group (B) that starting with surgery followed by adjuvant chemotherapy, to assess the clinical benefits that affect overall survival. As shown in (table 27), local recurrence was observed in one patient (4%) who starting with neoadjuvant chemotherapy followed by adjuvant (group A), compared with 3 patients (12%) who starting with surgery followed by adjuvant chemotherapy. These differences were significant using the Chi-square test. With respect to the development of local recurrence for group (A), there is one patient (4%) who develops that 22 months after presentation of disease, compare with three patients (12%) of group (B) who develop local recurrence 17 months, 20 months, 18 months respectively.

Distant metastasis of group (A), following neoadjuvant chemotherapy, these were observed in 2 patients (8%) including liver

metastasis (26 months after presentation) and lung metastasis (23 months after presentation), compared to 5 patients (20%) of group (B), including 2 patients of liver metastasis (15 months and 21 months after presentation), and one patient of lung metastasis (16 months after presentation) and 2 patients of bone metastasis (14 months and 23 months after presentation).

These differences in the free disease survival were significant [88% of group (A) versus 68% of group (B), P=0.0401].

Table (27): Follow up

Type of recurrence	Group (A) (n=25)	Group (B) (n=25)
Local recurrence	1(4%)	3(12%)
Distant metastasis	2(8%)	5(20%)
-Bone	_	2(8%)
-Lung	1(4%)	1(4%)
-Liver	1(4%)	2(8%)
-Others	_	_

Comparison of survival curves (Logrank test):

Disease free survival in the 50 patients of the study:

The disease free survival of all patients of two groups followed for a period of 3.5 years (median observation time of 39 months) revealed 88% for group A and 68% for group B (see fig. 25).

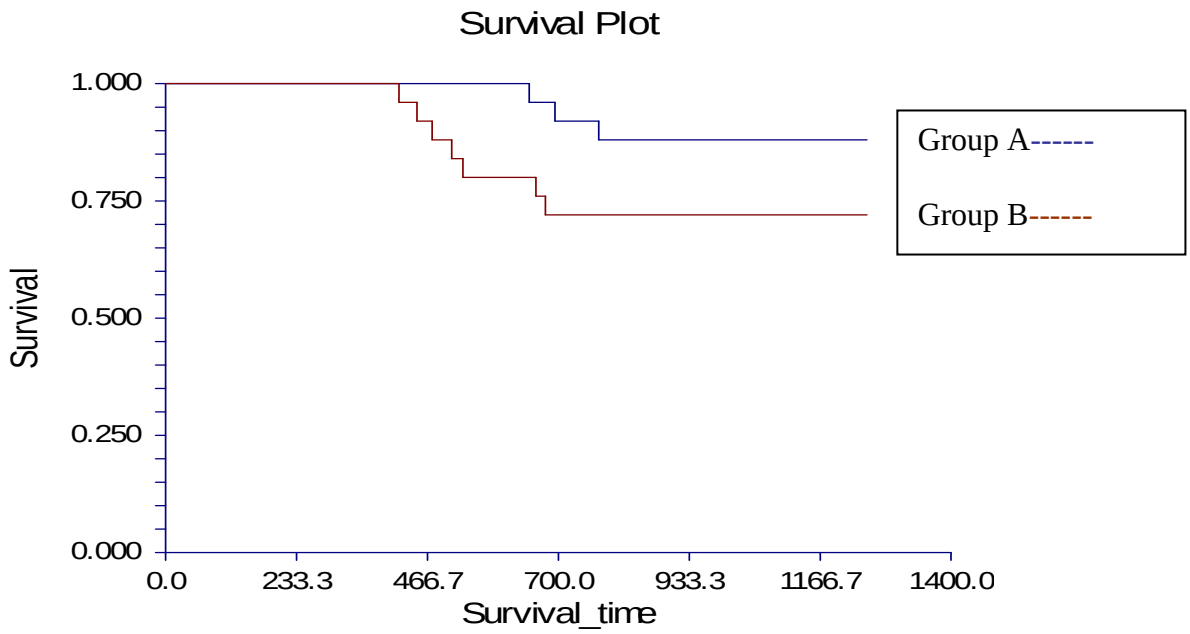


Figure (25): Overall 3.5 year Kaplan-Meier survival curves (Logrank test) of the 50 patients (25 patients of group A, treated with neoadjuvant followed by surgery and adjuvant therapy) and (25 patients of group B treated with surgery and followed by adjuvant therapy).

The overall survival in locally advanced breast cancer patients categorized by method of treatment showed significant results (p=0.0401).

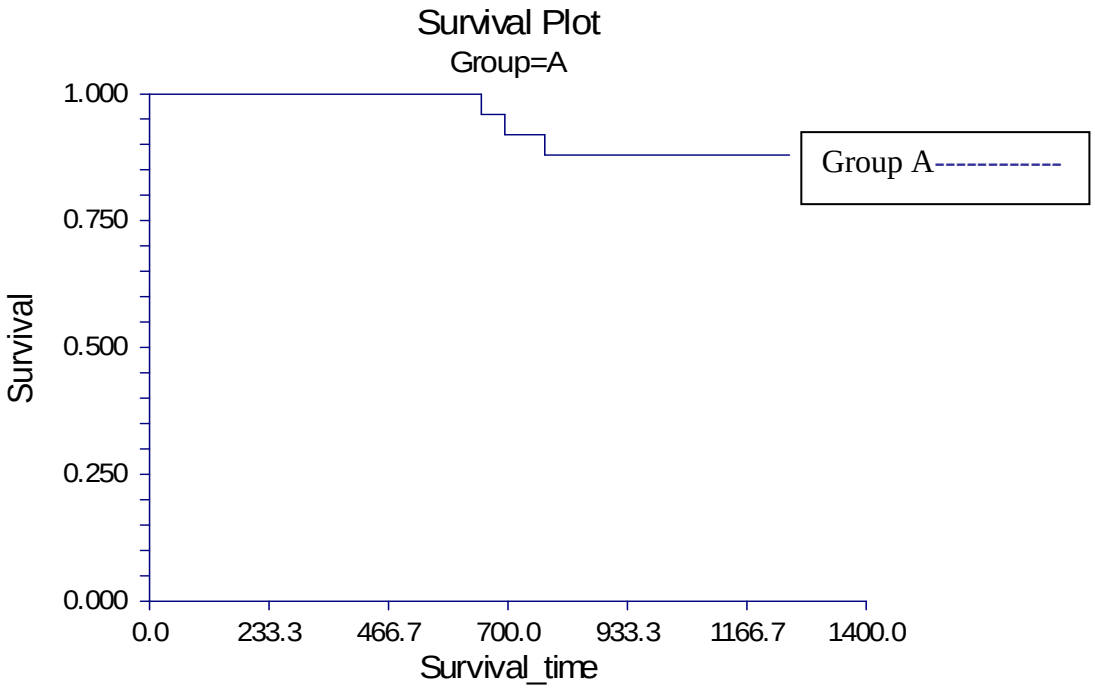


Figure (26): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant followed by surgery and adjuvant therapy.

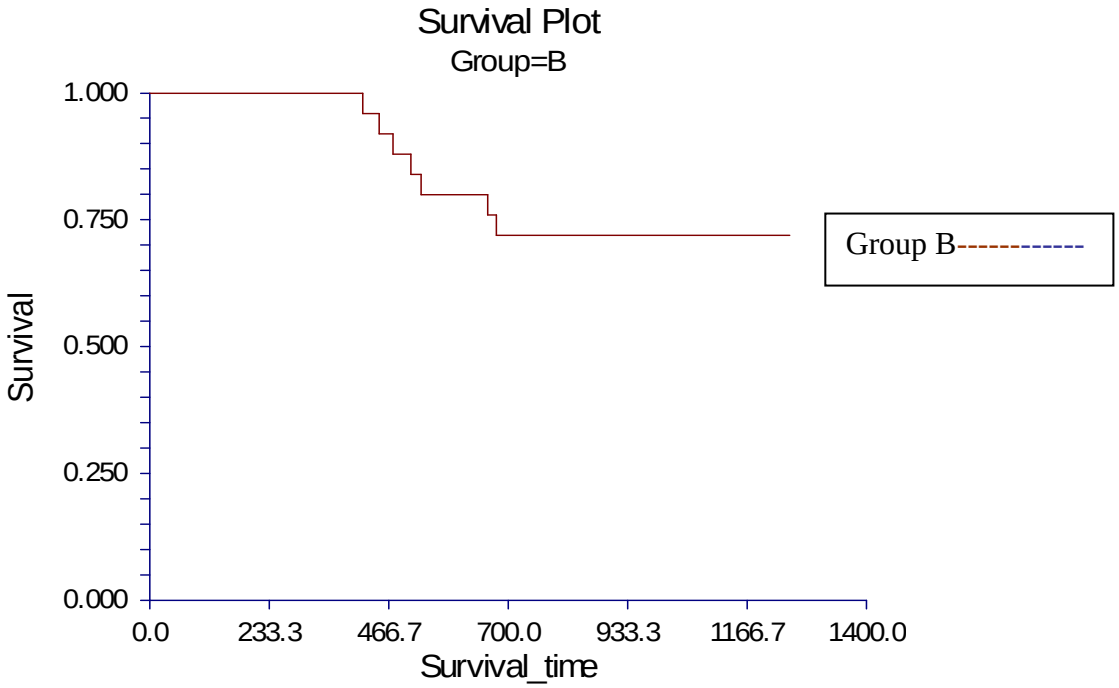


Figure (27): Overall 3.5 year Kaplan-Meier survival curves of 25 patients of group B treated with surgery and followed by adjuvant therapy.

The overall survival of group (A) according to neoadjuvant chemotherapy regimens insignificant (P = 0.9537) (see fig. 28).

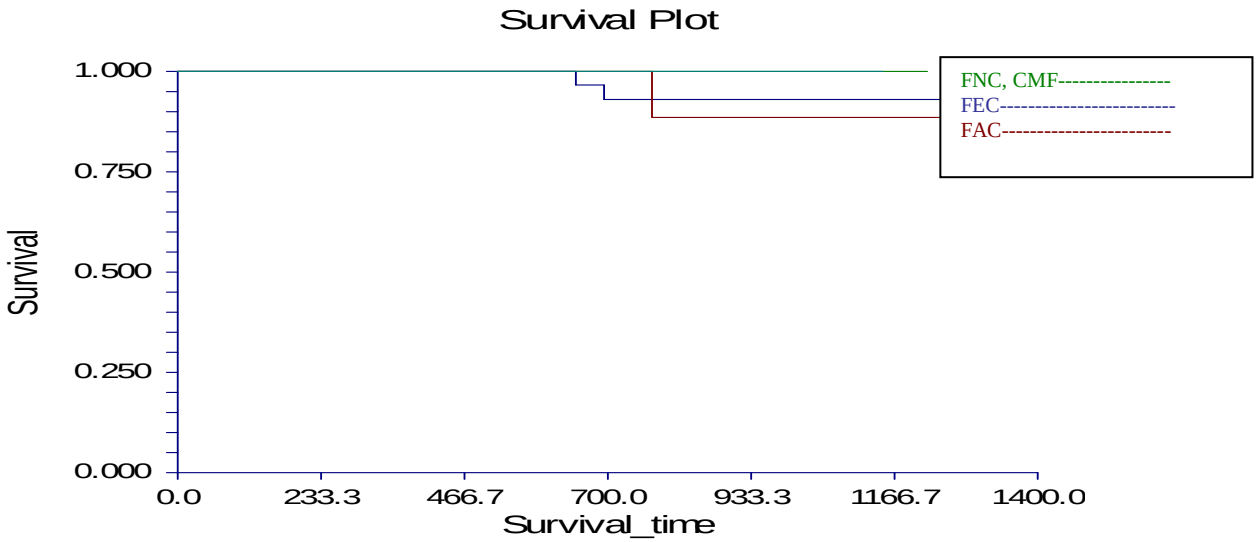


Figure (28): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant chemotherapy according to neoadjuvant chemotherapy regimens.

The overall survival of group (A) according to response to the neoadjuvant chemotherapy (p= 0.4519) (see fig. 29).

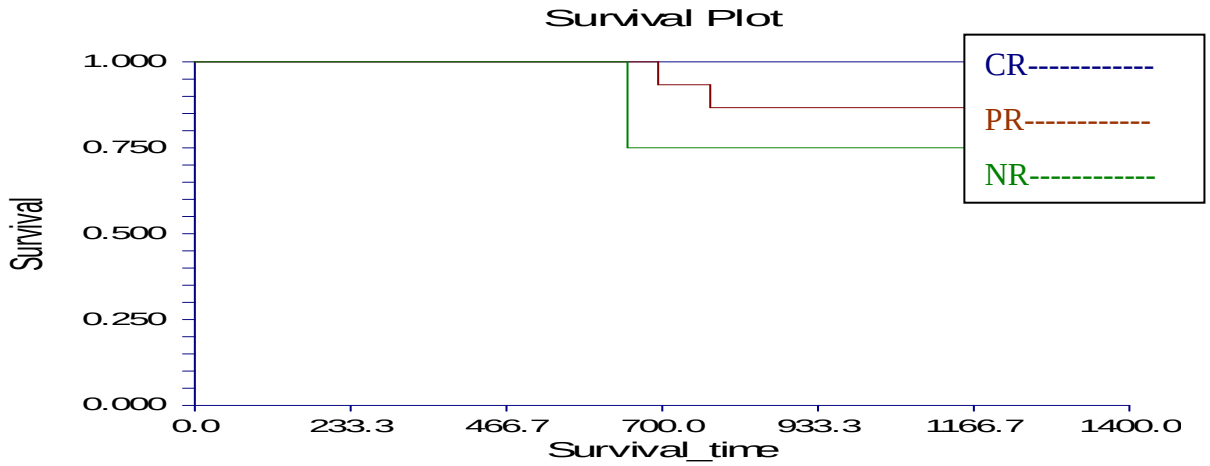


Figure (29): Overall 3.5 year Kaplan-Meier survival curves of 25 patients (Group A), treated with neoadjuvant chemotherapy followed by surgery: comparison between responders and non-responders. All patients treated with neoadjuvant chemotherapy (n=25). (PR); patients with a partial response to neoadjuvant chemotherapy (n=14) (CR); patients with complete response to neoadjuvant chemotherapy (n=6). (NR); patients with no response to neoadjuvant chemotherapy (n=5).

The overall survival of group (A) according to progesterone receptor (p= 0.6624) (see fig. 30).

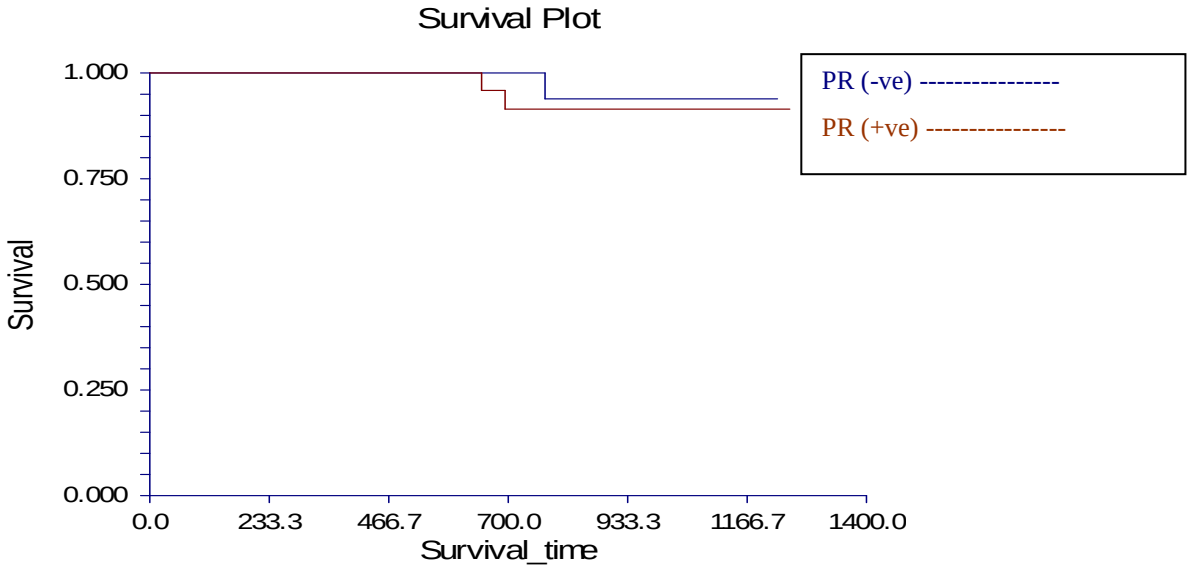


Figure (30): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant chemotherapy according to progesterone receptor status, revealed: PR +ve 86%, PR –ve 91%.

The overall survival of group (A) according to estrogen receptor (p= 0.6299) (see fig. 31).

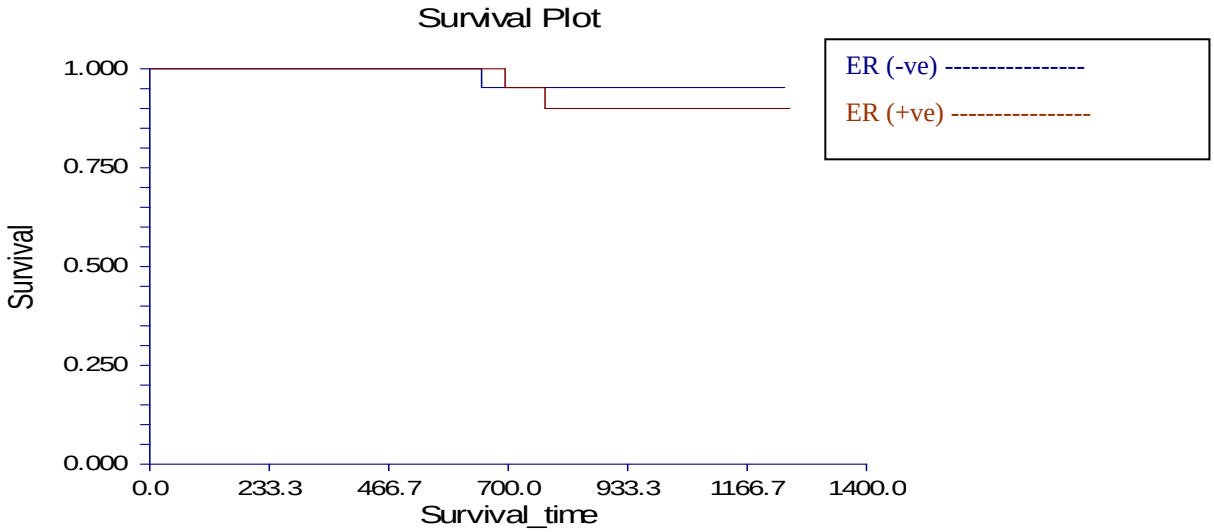


Figure (31): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant chemotherapy according to estrogen receptor status, revealed: ER +ve 92%, ER –ve 85%.

The overall survival of group (A) according to tumor stage (p=0.2224) (see fig. 32).

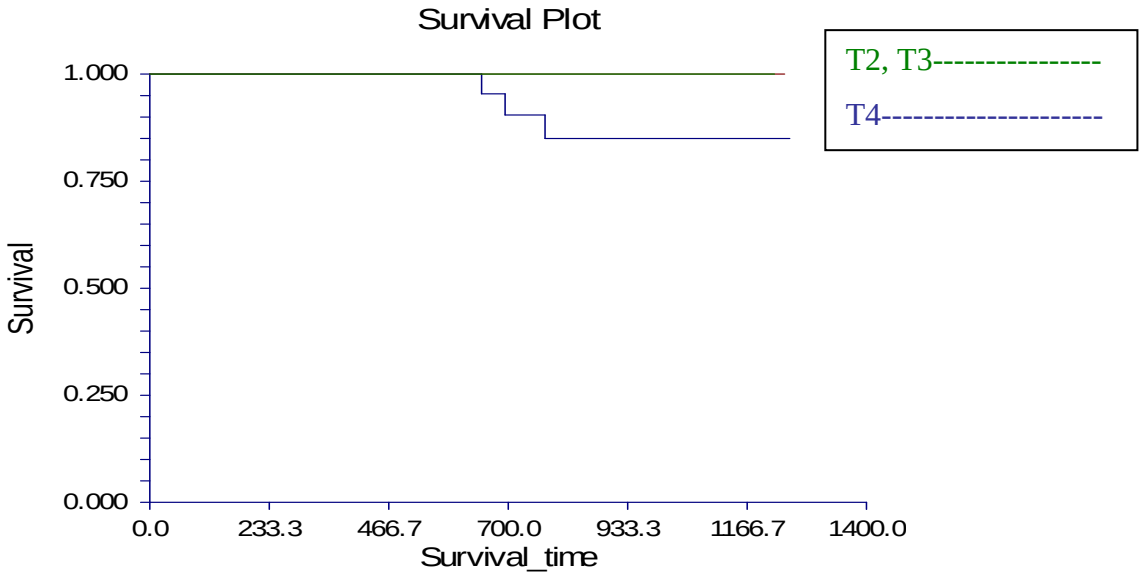


Figure (32): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant chemotherapy according to tumor stage.

The overall survival of group (A) according to stage significant (p= 0.0327) (see fig. 33).

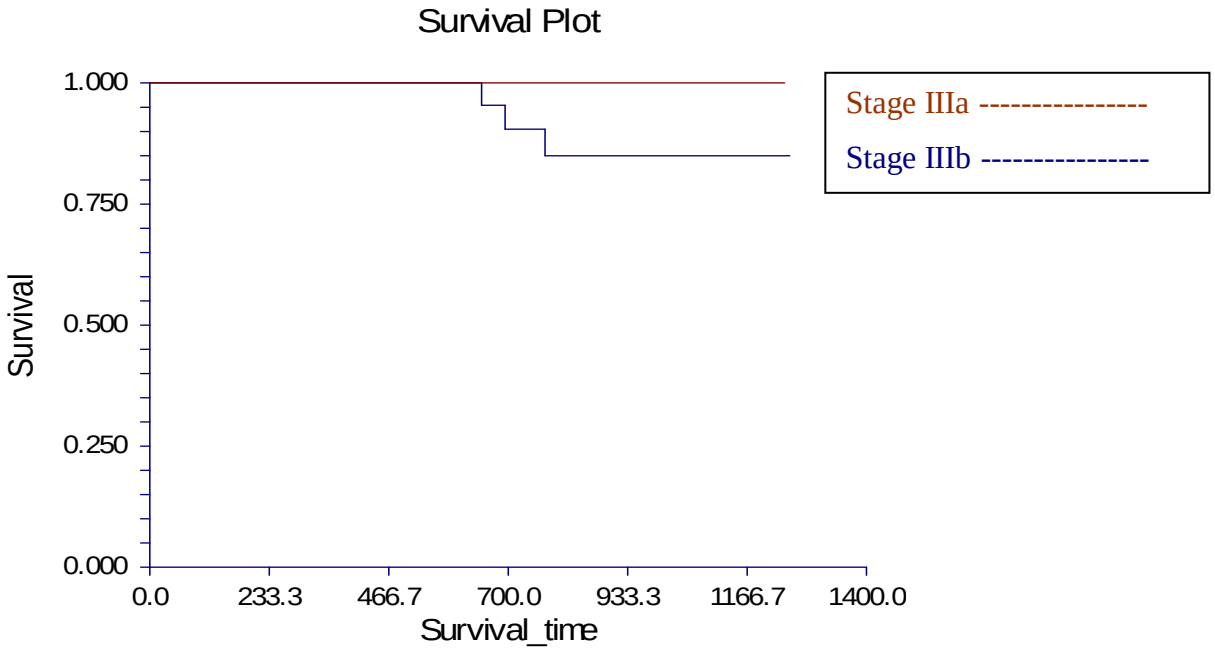


Figure (33): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group A, treated with neoadjuvant chemotherapy according to stage.

The overall survival of group (B) according to progesterone receptor (p= 0.1957) (see fig. 34).

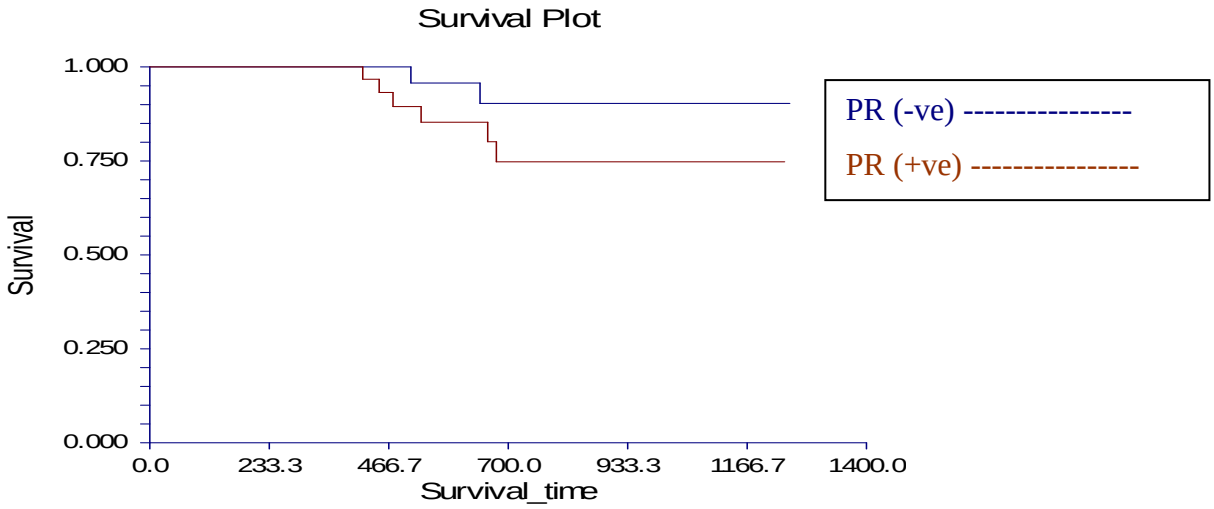


Figure (34): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group B, treated with surgery followed by adjuvant therapy according to progesterone receptor status, revealed: PR +ve 57%, PR –ve 82%.

The overall survival of group (B) according to estrogen receptor (p=0.0754) (see fig. 35).

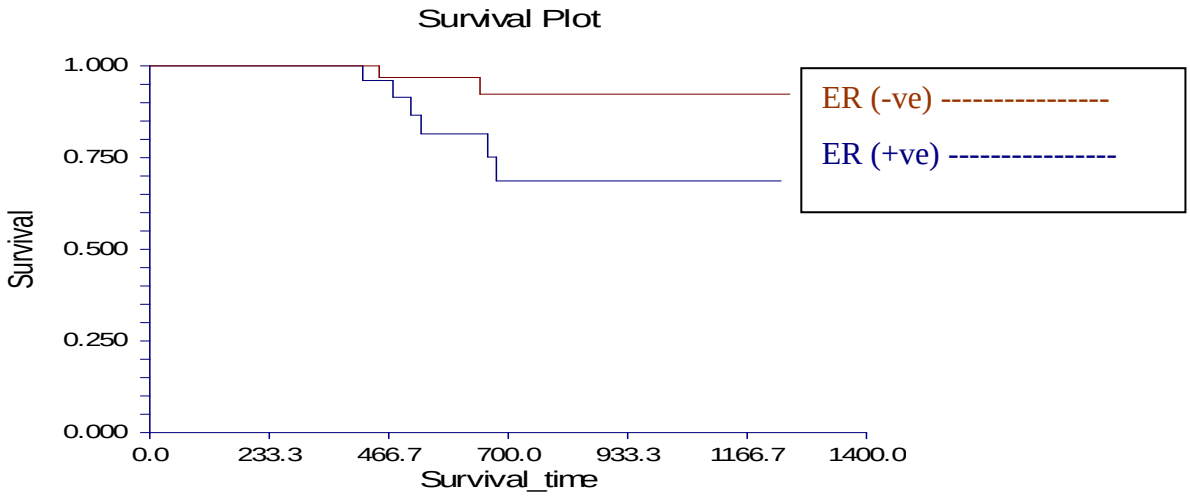


Figure (35): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group B, treated with surgery followed by adjuvant therapy according to estrogen receptor status, revealed: ER +ve 50%, ER –ve 85%.

The overall survival of group (B) according to tumor stage (p=0.2987) (see fig. 36).

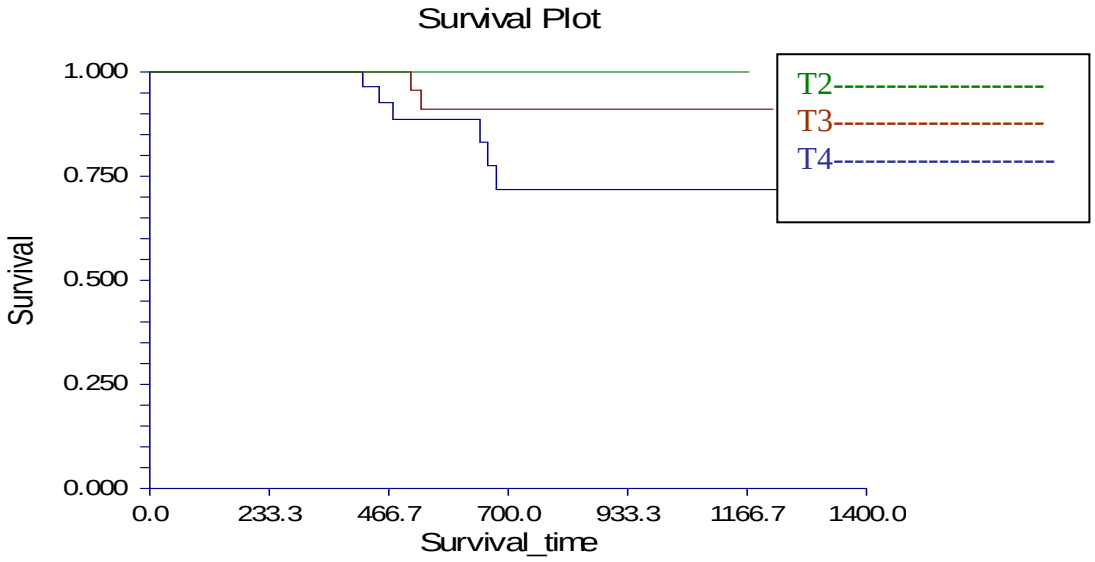


Figure (36): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group B, treated with surgery followed by adjuvant therapy according to tumor stage.

The overall survival of group (B) according to stage insignificant (p=0.1272) (see fig. 37).

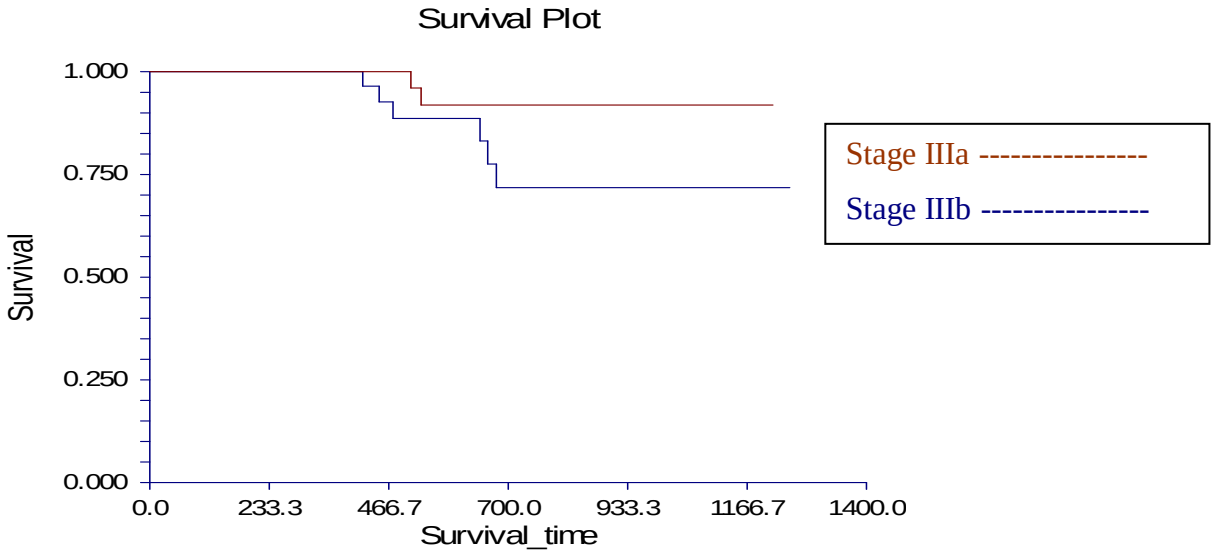


Figure (37): Overall 3.5 year Kaplan-Meier survival curves of the 25 patients of group B, treated with surgery followed by adjuvant therapy according to stage.