lymphoedema of the upper limb. The therapy of lymphatic edema is life-long and of limited efficacy. Therefore it is highly important to select the group of patients, in whom development of lymphoedema is expected. 

Objective: Association between the applied anti-cancer therapy and the risk of lymphoedema of the upper limb based on lymphoscintigraphic evaluation.

Methods: 77 patients after radical surgery for breast cancer treatment were analyzed. The patients were prospectively followed-up for a mean period of 36 months. Metric measurements of the upper extremities and diagnostic investigations (lymphoscintigraphy) were performed.

Results: In 47 of 77 patients (61%) there were clinical symptoms of lymphoedema, and in 30 patients (39%) no symptoms were observed. In patients with clinical lymphatic oedema lymphoscintigraphy revealed signs of lymphatic failure, and flow asymmetry index was abnormal. The applied anti-cancer therapy (i.e. type of surgery, chemotherapy, radiotherapy and hormonal therapy) was not significantly correlated with the development of lymphoedema, or with the flow asymmetry index (p >0.05). The association between application of chemotheraphy and development of lymphoedema showed a tendency for significance. The total number of lymph nodes removed during the surgery and number of positive nodes were not significantly associated with both the risk of development of lymphoedema and the flow asymmetry index (p >0.05). The association between the number of metastatic lymph nodes and development of lymphoedema tended to be significant (p = 0.057)

Conclusions: The applied anti-cancer therapy (radiotherapy, chemotherapy, hormonal therapy), lateralization of cancer as well as pT and pN were not associated with an increased risk of upper limb lymphoedema in patients operated on for breast cancer with axillary dissection.

No conflict of interest.

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194. Outcome of breast conservation therapy in early breast carcinoma in Egyptian female patients. Clinico-pathological study for the patterns of treatment failure
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Background: The general aim of this study is to gain insight into the problem of local recurrence after breast conserving surgery for early invasive breast carcinoma in Egyptian females.

Materials and Methods: In a population based cohort of 200 women with invasive breast cancer, operated upon from January 2005-December 2009 and followed through 2012-2013. We studied breast conserving surgery and the prognostic factors and their effect upon local recurrence, distant metastases, disease free survival and overall survival.

Results: The incidence of LR (local recurrence) at 5 years was 7% and that of DM (distant metastases) was 10.5%. The incidence of LDFS (local disease free survival), DDDFS (distant disease free survival), DFS (disease free survival) and OS (overall survival) at 5 years was 91.6%, 84.6%, 79.3% and 85.3% respectively.

None of the prognostic factors turned out to be correlated to LR, however; both LN status (lymph node status) and adjuvant systemic treatment were correlated to DM and DFS, while HR status (hormone receptor status) was correlated to DFS. IBTR as a variable was strikingly related to DM and consequently decreased survival where the 5 year DDFS of patients who did not develop IBTR was 60.6% compared to 87.1% of people who did not.

Conclusion: The most important determinants of distant metastases were lymph node status and adjuvant systemic treatment. Local recurrence is a significant risk factor for distant metastases and consequently decreased survival.

No conflict of interest.

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195. Skin sparing mastectomy and immediate reconstruction for locally advanced breast cancer after neoadjuvant chemotherapy
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Background: Skin-sparing mastectomy (SSM) followed by immediate reconstruction (IBR) is a safe and commonly used treatment for patients with early-stage breast cancer. However, the safety and efficacy of SSM in patients with high-risk disease have not been well studied. The implementation of neoadjuvant chemotherapy for a selected group of patients with locally advanced breast cancer followed by skin sparing mastectomy and immediate reconstruction expands the scope of breast preservation to encompass more patients with large tumors and improves the final aesthetic outcome.

Materials and methods: Prospective, study on 70 patients with stage IIIA breast carcinoma, enrolled from 2008-2012, who received anthracycline based neoadjuvant chemotherapy with good response at the National Cancer Institute, Cairo University, Egypt. Patients were divided into two groups: Group (A); underwent skin sparing mastectomy followed by immediate reconstruction either by latissimus dorsi flap or TRAM flap, while Group(B); underwent modified radical mastectomy. The choice between SSM or MRM was based on a joint decision by the patients and physicians. Studied parameters included both oncological and aesthetic assessment. Patient, tumor, and treatment characteristics were evaluated and compared between the two groups.

Results: The duration of operation and blood loss were more longer in group (A) than group (B). Postoperative complications as wound infection, flap necrosis and seroma were more in group (A). Total no of wound infection was 24 cases (68.6%) in SSM versus 17 cases (48.6%) in MRM. There was significant more seroma in SSM than in MRM. There was significantly more necrosis in skin sparing mastectomy than in MRM. Partial flap necrosis was seen in 5 cases; including the skin paddle or the underlying fatty layer, total sloughing of the LD flap muscle was seen in one case 10 days postoperative and converted to MRM. Aesthetic result was acceptable in 88% of cases in group (A). During follow up for two years for patients in both groups, local recurrence in group (A) was observed in 3 cases while it was 4 cases in group (B) and the difference was insignificant. Overall survival was similar in both groups, this was 94.3% and 97.1% respectively.

Conclusion: In our study the feasibility of skin sparing mastectomy in down staged selected locally advanced breast cancer after neoadjuvant chemotherapy suggested that it is oncologically safe.

No conflict of interest.

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196. Extended rotational flap for closing defects of upper-lateral segment of the breast. The useful trick in oncoplastic breast conserving surgery
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Background: Breast tumors occur mostly in the upper-lateral quadrants. Simple wide local excision leads to deformities. Rotational flap (RF) is effective, leads often to the decrease of the breast size, although it saves breast shape. But asymmetry requires additional operation. We believe that optimal oncoplastic technique allows saving shape and size of the breast. It can be achieved by volume replacement from the axillary region — lateral thoracical flaps (LTF), which are reliable (Holmstrom 1986, Munhoz 2006). However, such flaps also can lead to deformities.
Material and methods: We propose using combination of rotational, dular and lateral thoracical flaps to improve aesthetic effect — the extended rotational flap (ERF). The marking have to use lateral section of the breast with lower base and join to it a wide portion of axillary region with taking into account natural folds and borders. Circumareolar mobilization of nipple-areola complex also must be performed. All of these help us minimize defects and changes of breast size and shape. Proper patient selection and planning for extended rotational flap can achieve excellent aesthetic results and save the patient from symmetrizing operation.

Results: There were performed 222 oncoplastic breast conserving surgeries (OCBS) for 218 patients in LISSOD private oncological hospital during 2007-02.2014. Tumor location in the upper-lateral quadrants was observed in 58.8% of patients. Defect closing with RF, LTF and ERF was performed for 43 patients. Middle age was 51.7 years. All patients were discussed on multidisciplinary oncological conference. Treatment plan was formed according to NCCN guidelines. Operational plan was discussed with each patient. Defects closing with RF were performed for 6 patients, with LTF for 26 patients, with ERF — 11. Oncoplastic surgery was combined with axillary lymph node dissection in 20 patients, with sentinel node biopsy - in 28 patients. The average weight of specimen was 127.7g. Complications were observed in 13 (30,2%) patients — 2 patients had hematomas, 4 - cellulites, 4 - seromas, 1 had ischemia of wound margins, 2 had marginal flap necrosis.1 patient had tumor in surgical margins, she needed re-excision.

Conclusion: Rotational flap and lateral thoracical flap are effective methods of OCBS if the tumor is situated in upper-lateral quadrants of the breast. Combined method was proposed — extended rotational flap with tissue mobilization from axillary region according to the natural points of rotation and borders. This method allows reach excellent results safety and avoid symmetrizing operations.

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197. The prognostic significance of progesterone receptor expression in patients with ER positive and HER2 negative breast cancer
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Background: Breast cancer is heterogeneous disease and its subtypes are classified based on gene expression profiling or immunohistochemical characteristics. Progesterone receptor (PgR) and Ki-67 are considered important factors to distinguish luminal A subtype and luminal B subtype. The aim of this study was to examine the prognostic significance of the proportional scoring of PgR status in invasive breast carcinoma by Allred method.

Materials and methods: PgR has been evaluated in 613 patients with ER positive and HER2 negative stage I-III breast cancer treated from 2005 to 2012. Estrogen receptor (ER), PgR, HER2, and Ki-67 were assessed by immunohistochemistry (IHC). The threshold for ER positivity was 1%. Tumors were consider HER2 positive if IHC staining was 3+ or FISH positive. A proportional score was assigned representing the estimated proportion of positive staining tumor cells (0=none; 1=<1/100; 2=1/100 to 1/10; 3=1/10 to 1/3; 4=1/3 to 2/3; 5=>2/3). Relapse-free survival (RFS) curves and overall survival (OS) curves were generated using the Kaplan-Meier method and survival comparisons were made with the log-rank test. A multivariate Cox proportional hazards regression model performed in a stepwise fashion was used to determine the prognostic value. The level of significance was taken to be 0.05. IBM SPSS Statistics19 software package was used for statistical analysis.

Results: The distribution of PgR proportional score was not normal [0 (n=87,14,2%), 1 (n=46,7,5%), 2 (n=75,12,2%), 3 (n=130,21,2%), 4 (n=151,24,6%), 5 (n=124,20,2%)]. The cutoffs for PgR proportional score and corresponding p values for RFS and OS were score=1 (p=0.013 and p=0.015). On univariate analysis, the significant predictive factors for shorter RFS and shorter OS were positive nodal status and high Ki-67 labeling index. No correlation was found between PgR (cutoff points 1 or 2) and pathological lymph node status. High Ki-67 was significantly associated with higher histological grade and positive nodal status. Nodal status, PgR, and Ki67 remained important predictive factors for OS on multivariate analysis.

Conclusions: Proportional score of PgR provides important clinical information besides other parameters to help decision making of treatment for breast cancer.

No conflict of interest.

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198. Skin-sparing goldilocks mastectomy — “intermediate” reconstruction: Single institution experience
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Background: Achieving of high quality of life are fundamental principles of treatment breast cancer patients. That idea led to oncoplastic breast surgery onset. Foster (2002), Veronesi (2012) and others showed that skin-sparing mastectomy with or without reconstruction are safe. However not every patient agree to one-stage reconstruction. Goldilocks mastectomy can be the way out of such situation. Operation was proposed by G.Ma and H.Richardson in 2011 as “intermediate option” between Madden mastectomy and one-stage reconstruction.

Material and methods: The operation consists in subcutaneous mastectomy with nipple-areola complex deconnection by Wise access and using residuary breast skin of the lower segment for filling defect after parenchyma’s removal. Deepidermization of lower flap performs, it puts to region of breast bed, being ‘autoimplantant’ and covers by upper flaps, creating protubrance in mammary region. Surgical indication is possibility for skin-sparing mastectomy for patients with C, D, E breast size in case of one-stage reconstruction refusal. Blood supply of flaps estimates by marginal excision during the operation. In the presence of big size mammary gland reconstruction of rather aesthetic acceptable breast is possible. Especially in the case of bilateral surgery. The presence of multilayer skin flap can be useful for delayed reconstruction with implants or using lipografting. The important ‘little thing’ is preserving of central sulcus between mammary glands. Using of special underwear and external implant provides dressing with open décolleté zone and this is important for majority of patients.

Results: There are 13 skin-sparing goldilocks mastectomy performed from 2012 to 02.2014 in our hospital, which amounts 37,1% of the total number ablative mastectomy (without one-stage reconstruction). The middle age was 58 years old. All patients were discussed on multidisciplinary oncological conference. Treatment plan was formed according to NCCN guidelines. Operation plan was discussed with patient in details. One of the patient got 2 lipografting sessions in total dose 264 ml after ending background therapy. Axillary lymph node dissection were conducted in 7 cases, sentinel lymph node biopsy - in 4 cases. The average operation time was 153.8 minutes (105-250). The average weight of specimen was 573 gr (422-740 gr). Seven cases of complications were observed, where of 5 patients had seroma in postoperative wounds, 2 patients had marginal skin necrosis with secondary healing. No evidence of tumor growth in residual margins.

Conclusions: Achieving of high quality of life and increasing of life expectancy are fundamental principles of Breast Cancer patients treatment. Goldilocks mastectomy is easy technically and safe operation, allows improve life quality of breast cancer patients who refuse one-stage reconstruction. The creation of additional skin flap can be used in the case of postpone reconstruction.

No conflict of interest.

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