(type I = 81, type II = 401, p < 0.0001), mean specimen volume was 300 cc (type I = 231, type II = 375, p < 0.0001), mean tumor size was 22.3 mm (type I = 20.5, type II = 23.9, p = 0.032). Median post operative stay was 1 day. We had to re-operate 5 patients for close or involved margins (2 mastectomies with immediate reconstruction and 3 therapeutic mammaplasty). Of the 147 patients with carcinoma, successful breast conservative surgery was achieved in 98.6%. There were no major nipple-areolar necrosis. Only 2 patients had complications that required re-intervention (one case with hematoma and suture dehiscence and one case with nipple retraction).

Conclusions: Oncoplastic breast-conserving surgery allowed us to perform successful breast-conserving surgery in high percentage of patients with low percentage of complications. Type 1 mammaplasty are faster and simpler than type 2 to perform but limited to smaller volume excisions.

265 Poster

Breast-conserving surgery in older patients with invasive breast cancer: an underused treatment

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Background: Breast-conserving surgery is as effective as mastectomy for treatment of early invasive breast cancer. Earlier studies suggest low BCS use in Iran. The aim of this study was to evaluate the surgical treatment of elderly patients in a cancer center in Iran.

Materials and Methods: A cross-sectional retrospective study of elderly breast cancer patients treated in the Cancer Institute, Tehran University of Medical Sciences, was performed. The information of the elderly patients diagnosed with breast cancer in a four year period was retrieved from their files. The type and characteristics of the tumor, the stage of the disease, the type of the operation and the use of sentinel lymph node biopsy were recorded.

Results: The information of 98 breast cancer patients older than 70 were reviewed. The mean age of the patients was 74.2 ± 3.6. The in situ carcinoma was diagnosed in 2 patients. T1 and T2 tumors comprised 20.4% and 51% of patients respectively. Stage I and II disease were found in 16.3 and 46.9% of the study population respectively. Modified radical mastectomy was performed in 69.6% of patients and 22.4% of the study population underwent breast conserving surgery. Simple mastectomy was offered to 8.3% of the patients. The pathologic examination of the lymph nodes revealed that 40.8% of patients had no lymph node involvement but sentinel lymph node biopsy was performed in only 4 patients.

Conclusions: The finding of this study confirms that elderly patients do not receive breast conserving surgery despite being eligible for the treatment. The reasons for the inappropriate management of this group of patients should be investigated.

266 Poster

The follow-up results of treatment of male breast carcinoma

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Cancer of the male breast is an uncommon oncological disease in Lithuania. The incidence rate in Lithuania is 3.6−4.9 cases per million of men. In 2008 years were registered newly 16 males with breast carcinoma. During the last decade there was no evident change in the frequency rate of disease − usually 10−15 cases were registered each year. Nationally, 1% of breast cancer appears in men. Our purpose of this investigation to evaluate the situation of treatment of male breast cancer in Lithuania.

Material and Methods: The results of the investigation were analysed in 100 male patients treated during the period of 1988–2006 years in two Clinics: Institute of Oncology at Vilnius University and Hospital of Oncology at Kaunas University of Medicine. The average age of the patients was 67.5 years (ranging 31−90 years). The staging of the disease was as follows: in stage I included 13 (13%) pts, in stage IIA − 24 (24%) pts, in IIB − 17 (17%) pts, in IIIA 15 pts (15%), in IIIB − 16 (16%) pts. 15 (15%) patients were treated in stage IV of the disease. Invasive ductal carcinoma was the most frequent type (68 patients), 9 patients had lobular carcinoma and adenocarcinoma was detected in 6 cases. The most common method of the treatment was modified mastectomy by Madden (75 cases). 53 patients received the combined treatment: 23 patients were treated with radiotherapy, 9 patients with chemotherapy, 14 patients received radiotherapy and chemotherapy, 14 patients were treated with tamoxifen.

Results: 5-year overall survival of all male patients with breast carcinoma was estimated at 42.7%. 5-year survival of the patients at stages I and IIA were 71.9% and 79.5%, and at stage IIB it was 53.5%. Low survival rates 15.8% and 11.2% were observed at stage IIIA and stage IIIB of the disease respectively. None of the patients with stage IV of the disease survived 5 years and more. 2-year survival (6.7%) was the best estimate in this group.

Conclusions:

1. The majority of male breast cancer patients are diagnosed at advanced stage of the disease.
2. The overall 5 year survival rate was estimated at 42.7%. The stage of the disease was the major determinant of the patients' survival.

267 Poster

Seroma following axillary lymphadenectomy for breast cancer

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Introduction: Many factors have been evaluated for the cause of seroma following axillary lymphadenectomy. We report the results of a randomized, prospective trial that compared the rate of formation of postmastectomy wound seroma in two groups of patients undergoing axillary lymphadenectomy: one undergoing axillary lymphadenectomy level I−II, and the other undergoing axillary lymphadenectomy level I−III.

Methods: Retrospective review of records of two sequential groups of patients treated in surgical clinic Nis between 2004 and 2006. Both groups had minimum of 2 years follow-up.

Results: Two hundred and twelve patients were included in Group 1 and 104 in Group 2. The two groups did not differ with respect to seroma formation and wound infection.

	Level I−II	Level I−III
Seroma incidence	53 (25%)	51 (36.43%)
Seroma volume (mean±SD, ml)	157±87	234±135
Clinical infection	5 (2.35%)	4 (2.85%)
Positive drain culture	15 (7.07%)	12 (8.57%)

Conclusions: Seroma formation is more of a nuisance than a complication, but may delay patient recovery and cause unpleasant symptoms. The dissection range did not influence the seroma formation, volume and microbiological culture results.

268 Poster

Breast cancer risk-reducing surgery in Helsinki

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Background: Approximately 5−10% of all breast cancers are assumed to be related to *BRCA1* or *BRCA2* gene mutations. The cumulative lifetime risk of having breast cancer in *BRCA1* carriers is 65% (44−78%) and in *BRCA2* carriers is 45% (31−56%). And for ovarian cancer the risks are 39% (18−54%) and 11% (2.4−19%). In Helsinki they are offered surveillance according to current guidelines and also possibility for risk-reducing mastectomy and risk-reducing salphingo-oophorectomy.

Material: BRCA1 and BRCA2 genetic testing started in HUCH in 1997. Approximately 690 persons have been tested, 150 BRCA1/2-mutation carrier women have been found and 117 of them have had follow-up in HUCH.

Methods: We studied the patient files of 117 BRCA1/2-mutation carriers for risk-reducing operations.

Results: Of all BRCA1/2-mutation carriers 75 patients have had breast or ovarian cancer or both. Of these 32 had cancer before genetic testing, 42 had genetic testing initiation at cancer diagnosis, and one patient had cancer diagnosis after being tested positive. There were 72 breast cancers, 15 of these were bilateral. Mean age at diagnosis was 43 (range 24−64 years).

Altogether 50 of 117 have had risk-reducing mastectomy. A majority (37 of 50) was with skin-sparing technique, 17 were bilateral and 33 unilateral mastectomies. Altogether 67 breasts were operated. Mean age of surgery was 42 years (range 27−60 years). Risk-reducing salphingo-oophorectomy had been performed on 60 of 117 patients. Only seven mastectomies were performed without breast reconstruction. The reconstruction methods are presented in the table.

Conclusions: In this series, 43% of the BRCA1/2-mutation carriers had risk-reducing mastectomy and 50% had risk-reducing salphingo-oophorectomy.

The majority of the patients undergoing risk-reducing mastectomy had had unilateral breast cancer. Therefore most of the risk-reducing mastectomies were unilateral.

Almost all operated mutation carriers had chosen breast reconstruction.

Reconstruction techniques

	sin	dx
No reconstruction	3	4
Prosthesis	14	13
LD reconstruction	2	2
LD + prosthesis	7	5
TRAM	3	1
DIEP	2	3
SIEA	2	1
TMG	3	2
Total	36	31

LD = Latissimus dorsi, TRAM = Transverse rectus abdominis musculocutaneous, DIEP = Deep inferior epigastric perforator, SIEA = Superficial inferior epigastric artery, TMG = transverse musculocutaneous gracilis.

References

[1] Antoniou A et al. Average Risks of Breast and Ovarian Cancer Associated with BRCA1 or BRCA2 Mutations Detected in Case Series Unselected for Family History: A Combined of 22 Studies. Am. J. Hum. Genet. 2003; 72(5): 1117−30.
[2] Lynch HT: Hereditary Breast Cancer: Part I. Diagnosing Hereditary Breast Cancer Syndromes. Breast J. 2008; 14(1): 3−13.

269 Poster

Influence of factors affecting response to neoadjuvant chemotherapy in the design of the surgical approach to T2 and T3 breast tumours

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Background: The aim of this study was to assess the pathology factors that may influence response to neoadjuvant therapy, as in poor responders oncoplastic surgery followed by adjuvant chemotherapy seems a better alternative than neoadjuvant chemotherapy upfront to try to perform a conservative surgery.

Materials and Methods: We retrospectively reviewed our prospectively entered database of breast cancer patients since January 2008 to June 2009. T2 and T3 patients receiving neoadjuvant chemotherapy were selected. Tumours were divided depending on the results of the diagnostic corebiopsy pathology exam as follows: Her2Neu positive tumours (H2T), invasive lobular tumours (ILT), triple negative tumours (TNT) and positive hormone receptors tumours (PHRT). The response to chemotherapy was classified following the Miller and Payne classification (G1, G2 G3, G4 and G5) when examining the surgical specimen. Data on the number of mastectomies and conservative surgeries performed were collected. SPSS was used for statistical analysis and Chi2 used when necessary.

Results: 108 patients with T2 and T3 tumours were reviewed. Miller and Payne G4 and G5 (more than 90%estimated loss in tumour cells) was seen in 30% of H2T, in 6.3% of ILT, in 30.8% of TNT and in 13.6% of PHRT. This difference was statically significant comparing H2T and TNT together versus LIT and PHRT together (10/33 vs 9/75, Chi2 5.295, p = 0.021). This better response was reflected in the surgical procedures performed: for T2 tumours, mastectomy was performed in 0% of H2T, in 28.6% of ILT, in 10% TNT and in 44.4% of PHRT. This difference was significant (Chi2 8.175, p = 0.043). For T3 tumours, mastectomy was also more frequent for ILT and PHRT (62.5% and 53.1%) than for H2T and TNT (33.3% and 33.3%). This difference was not significant (Chi2 2.274, p = 0.517).

Conclusion: Starting with oncoplastic surgery followed by adjuvant chemotherapy seems a good option in LIT and PHRT, as the probability of failing to obtain a optimal response with neoadjuvant chemotherapy is higher than in H2T and TNT.

270 Poster

Conception of choice the operation to breast cancer patients − Results of treatment 1199 patients

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Plastic approach in the choice of operation to breast cancer patients can extremely increase the cosmetic outcome.

The examination of the results of conserving and reconstructive treatment of 1199 patients was performed. 809 (67.5%) of them underwent quadrantectomy and nipple reposition, 118 (9.8%) − skin-sparing mastectomy with immediate breast implant reconstruction, 135 (11.3%) − mastectomy with the primary reconstruction with latissimus dorsi or TRAM flaps, 137 (11.4%) − quadrantectomy with mammary reduction and mastopexy.

After surgery without correction of contralateral breast at 132 (11%) a difference in the volumes of breasts did not exceed 15% and did not require correction, but at 683 (57%) there was the considerable difference of volumes, that resulted some difficulties in the selection of linen, setting of external implants. Because of a considerable difference in volumes in a 384 (32%) cases surgery was executed on both breasts (augmentation or reduction, mastopexy).

The aesthetic results of bilateral operations were compared to such at one-sided by subjective estimation of patients. 375 (98%) patients after bilateral surgery and 513 (63%) after one-sided one, marked the aesthetic effect of operation, as good and very good. The quantity of complications in both groups did not differ.

Thus, implementation of correcting operations on contralateral breast allows attaining symmetry of them does not accompanied by the increase of quantity of postoperative complications and improves the psycho-emotional state and quality of life on the whole.

271 Poster

Axillary dissection using a new ultrasonic device

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Introduction: Axillary Seroma is the most frequent complication of axillary lymph-nodes dissection. The aim of this study is to estimate the effectiveness of the new ultrasonic device "Harmonic Focus" in the reduction of seroma after axillary dissection and in the second place to estimate the reduction of surgery and of the haematic loss using this device.

Materials and Methods: Since March 2008 to March 2009 we enrolled in our study 150 patients with breast cancer requiring an axillary dissection (positive Lymph-nodes at the beginning or after sentinel-node biopsy). We randomized the patients in two arms (A and B). A: 80 axillary dissection using Harmonic Focus; B: 70 axillary dissection using usual technique.

We recorded the following data of the patients enrolled: age weight, height BMI, pre and post operative value of hemoglobin.

A closed suction drain was placed; it was removed in the second or in the third postoperative day. Drain volume was daily recorded.

Results: The median age of the sample was 56 (range 33−89). The BMI calculated was 20.06 (range 19.53–42.97). We had 6/80 (7.5%) seroma in the A group and 7/70 (10%) in the B group. Clinical seroma was treated by needle aspiration and medication with steroid. We recorded reduction of bleeding and of time of surgery in the A group. We calculated the difference of value of pre and post operative Hemoglobin (Pre–post op ΔHB) and time of surgery in a subgroup of patients who underwent axillary dissection without breast reconstruction. We obtained the following data:
A arm (38 pt): 1,16251 Pre–post op ΔHB; 57′ (58−80) time of surgery.
B arm (44 pt): 1,6475 Pre–post op ΔHB; 70′ (55–116) time of surgery.

Conclusions: The results are encouraging. This new ultrasonic device is ergonomic, comfortable. It allows to dissect, coagulate, cut and it reduces damage of vital structures. It's very useful and safe in patients with pacemaker where electrosurgery cannot be used.

272 Poster

Oncologic safety and QoL of immediate latissimus dorsi myocutanous flap

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Background: To determine the quality of life (QoL) of breast cancer patients who underwent mastectomy and immediate breast reconstruction with a latissimus dorsi myocutaneous flap (LD), and the oncologic safety of the procedure.

Methods: Between May 2001 and March 2007, 2566 patients had breast cancer surgery at the National Cancer Center, Korea. Of the 2566 patients, 1699 had breast-conserving surgery (BCS) and 120 had a mastectomy with an immediate LD. We retrospectively compared the oncologic safety of the two techniques. We also assessed the QoL using the EORTC QLQ BR-23 and Zung's self-rating depression scale in 52 LD patients, 104 age- and stage-matched patients who underwent BCS, and 104 age-matched healthy women.

Results: The LD group had earlier stage disease than the BCS group at baseline, but following surgery, the groups did not differ in the rates of local recurrence or systemic metastases. Compared with the healthy group, the