almost always in the second stage (II). Breast reconstruction in Egypt is always accompanied by reduction mammoplasty of the other breast. The new method utilizes a myomammary flap from the other side this flap depends on the other breast being of moderate or large size.

Patient's and Methods: A total of 40 female patients were submitted for breast reconstruction using a pectoralis major myocutaneous flap from the other relatively large breast. The flap depended on a blood supply from the pectoral branch of the thoracoacromial artery. The flap being transferred on the pedicle of the pectorals major tunneled under the skin. The new technique utilizes the nipple on the healthy side to reconstruct the nipple of the new breast at the same time. A reduction mammoplasty was achieved in healthy contralateral huge breast.

Results: Good cosmetic results were achieved in 60% of cases, fair results in 25%, and unsatisfactory in 15%.

Conclusion: this new technique of breast reconstruction is suitable especially for patients with large, healthy breasts and for relatively poor patients.

826 PUBLICATION

Complications after level 1, 2 axillary dissection without division of pectoralis minor

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Purpose: most data on complications after axillary dissection regard level 1, 2, 3 clearance with division of pectoralis minor. The prophylactic dissection carried out at the Royal Marsden NHS Trust as in other Centres today consists of level 1 and 2 without division of pectoralis minor.

Method: analysis of the complications in 200 patients so treated.

Results: 38% of patients developed a seroma (30% required aspirations); 15% had transient lymphoedema (LE); 8% complained of tighter rings and 2.5% had problems with clothing; 17% had restriction of shoulder movements; 85% had numbness and this was slight in 58%, moderate in 33% and total in 4%.

90% of patients had no clinical evidence of LE, 5% of patients thought they had LE but the doctor and the nurse disagreed; 5% of patients had clinical LE. Measurements taken 15 cm above olecranon, 10 cm below olecranon and at the metacarpo-phalangeal joints showed a >5% increase in 13% (15 cm), 12% (10 cm), 15% (metacarpals), 7% (total arm), and a >10% increase in 1% (15 cm), 3% (10 cm), 0.5% (metacarpals), 0% (total arm). Differences in centimetres were:

	15 cm	10 cm	Metacarpals
No difference (0–1 cm)	68%	70%	82%
1–1.9 cm (minimal)	18%	18%	16%
2–2.9 cm (mild)	11%	8%	0.5%
3–3.9 cm (moderate)	1%	2.5%	0
> 4 cm (severe)	0.5%	0.5%	0

Conclusions: Level 1, 2 axillary dissection has in our experience a lesser incidence of lymphoedema than complete axillary dissection.

827 PUBLICATION

Follow-up of postirradiation side effects after breast conserving surgery (BCS): Presentation of a new scoring system based on MRI findings

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Purpose: To establish an objective method for evaluation the extent, topography and quantity of skin and soft tissue side effects after radiotherapy (RT) of the conserved breast and to compare the sequales of different radiation methods.

Methods: 48 patients operated on for breast cancer recieved postoperative RT 1. 50 Gy teletherapy + 10–16 Gy electron boost (12), 2. 50 Gy teletherapy + 10–15 Gy brachytherapy (BT) boost (13), 3. 46–50 Gy teletherapy (12), 4. 36.4 Gy sole HDR-BT (11). The post-RT side effects were examined by MRI, mammogram (MGR), ultrasound (US) and physical examination, MRI was performed on a 0.5 T double breast coil with SE-T1, SE-T2 and 3D-GE sequences. The findings of MKI and MGR were compared to physically detectable side effects using the RTOG/EORTC late radiation morbidity scoring scheme.

Results: US is useful only in the diagnosis of fat necrosis. MGR and physical examination are subjective and low specificity methods to evaluate post-RT side effects. MRI is a suitable and more objective method to detect the real extent and quantity of skin thickening and fibrosis. The differences between the side effects of whole breast RT and sole BT are also clearly demonstrated.

Conclusion: The authors established the MRI criteria for categorization the extent and grade of skin thickening and fibrosis. Breast MRI is an objective toot for assisting to the evaluation of the side effects of postoperative RT. BT alone after BCS is feasible without compromising cosmetic results.

828 PUBLICATION

Analysis of loco-regional failure pattern according to the radiation volume after conservative breast cancer treatment

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Purpose: To determine the optimum radiotherapy (RT) volume in the primary RT for early breast cancer, we analyzed loco-regional failure pattern.

Materials and Methods: In 1991–1995, 264 patients with stage I, II breast cancer were treated with breast-conserving surgery & primary RT. In N0 or <4 involved ALN, RT volume was involved breast alone with tangential technique. In ≥4 involved ALN, ipsilateral supraclavicular fossa (SCF) was also irradiated and in cases with inadequate ALN dissection or perinodal tumor extension, axillary fossa was included in the SCF field with posterior axillary boost (45–50.4 Gy). Supplemental dose to the primary tumor sites was 10–20 Gy.

Results: During the FU periods (median 38 mo), 30 patients recurred. 5-year disease-free survivals of stage I, IIA, & IIB were 93%, 87.2%, & 61.2% respectively. There were 6 LR alone, 13 DM alone, 5 supraclavicular lymph node recurrences (SCLR) alone, 4 LR + DM, & 2 DM + SCLR. There was no axillary recurrence. Four cases among 16 with >8 involved ALN recurred at breast skin. SCLR were more common in the inner quadrant location.

Conclusion: Axillary RT is not necessary in the cases who received adequate ALND. In cases with > 8 involved ALN, skin recurrence was a major LR pattern. Therefore, application of skin bolus should be considered. If the tumor location is inner quadrant, SCF RT can be considered to reduce SCL recurrence, even though axillary lymph nodes are not involved.

829 PUBLICATION

Management of impalpable breast lesions in Greece

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Purpose: Localization biopsy for impalpable breast lesions imaged by mammography is a means of accurately excising the suspicious lesions and avoiding an unnecessarily large biopsy. The results of a prospective study are evaluated here.

Methods: In the last 8 years, 131 women underwent a needle localization breast biopsy (NLBB) for impalpable breast lesion. The mean age was 50.6 years (range 33 to 75). Ten of them belonged in the third age (>65 years old). The mammographic presentation of the lesion was categorized as follows:

Category 1: Suspicious microcalcifications (clustered or other)

Category 2: Stellate lesion with microcalcifications

Category 3: Stellate lesion without microcalcifications

Category 4: Suspicious lesion (opacity-mass or developing density – with ill-defined borders) with microcalcifications

Category 5: Suspicious lesion without microcalcifications

Category 6: Distortion of the normal architectural pattern, striking asymmetry.

The Kopans localization needle and hookwire was applied in all instances with the aid of a special mammographic grid.

Results: The application of the method yielded a total of 25 breast cancers, that is 19.2%. The majority of Stage I and in situ carcinomas were classified on mammographic Category 4. The final staging of the patients found to have a breast cancer was: 6 pts Stage I, 4 pts Stage IIA, 1 pt Stage IIB, 3 pts Stage IIIA, 2 pts Stage V, 2 pts lobular in situ and 7 pts ductal in situ carcinomas. Six out of them underwent conservative surgery and another ten total mastectomy with standard axillary disection. The in situ carcinomas were treated initially with simple mastectomy (4 pts) and conservative surgery plus radiotherapy (5 pts) thereafter.

Conclusion: Needle localization biopsy for suspicious impalpable breast lesions yields a high percentage (19.2%) of breast cancer. This is accor-