of anaesthetic. Placement of a 25 G needle around a lymph node or in the subfascial plane when lymph node was not visible was confirmed on ultrasound and 3−5 mls of LA was infiltrated in the loose areolar tissue. Sub areolar infiltration of LA was then done to allow injection of 2 mls of 2.5% Patent Blue dye. Surgical scars included a vertical incision for the axillary dissection and over the lump for the local excision.

Results: Five patients who were deemed unfit for GA for medical reasons have been operated on to date using the method outlined above. All had clinical T1N0 tumours. All patients tolerated the patent blue infiltration without any problems ensuring successful and adequate sentinel node sampling (upto 6 nodes). Total volume of LA did not exceed 40 mls. Dilution of LA with saline may be used for larger lumps but this was not required in our series. Local excision was adequate in all cases with no futher surgical intervention required. There were no reported post operative complications.

Conclusion: Ultrasound guided infiltration allows acuarate placement of anaesthetic and reduces the volume required. We believe that this method is a safe and feasable alternative for those patients found to be medically unfit for general anaesthetic and should be considered when dicussing their management.

551 Poster

Breast volume measurement – comparing five different techniques

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Aim: To know breast volume gives a chance to select more suitable surgical techniques in breast cancer and to evaluate postoperative cosmetic outcome more precisely. Here we are comparing five different methods of breast volume measurement regarding to accuracy, cost-effectiveness and simplicity.

Materials and Methods: The volumes of 30 breast are determined by using volume-meter (a scaled cylinder device) of mastectomy specimens in operating room. 5 different volume measurements are done in each patient preoperatively. A written informed concerned is provided prior to measurement. The breast volume measurement methods are:

1. Grossman-Roudner Disc (GRD Technic): We used 2 more discs (700 and 1200 cc.) Adding to 3 original sizes (200–300−425 cc.)
2. Anthropometric Technique: We use quiao formula:
   Breast volume = (3.14)/3 × Breast height^2 × (Breast length + Breast width − Breast height)
3. Mammographic Calculation technic: We used Kalbhen Formula:
   Breast volume = (3.14)/4 × Breast length × Breast width × Breast compression thickness
4. Water Displacement Technique: We used Tezel at all's device (Plast Rec Surg 2000;105:1019)
5. Thermoplastic Casting Technique: We used some commercial cast products (Orfit and Polycast II).

The volume of specimens is divided into 5 categories. Ranging from 300 to over 1000 cc. The accuracy of results is evaluated statistically using SPSS version 5.

Results: In this study, Anthropometric and water displacement technique were more accurate in 0–200 cc volume group and GRD Technique was the best in 301–500 cc volume group in accuracy comparing to the others. But in all other groups (501–700, 701–1000 and over 1000 cc) mammographic calculation technique was the most efficient method regarding to the accuracy. In overall, the most accurate method was mammographic calculation technique regarding to reliability and homogeneity of measurements. From the point of view of cost-effectiveness, GRD and anthropometric techniques were the best. Regarding to the application, GRD was the simplest method.

Conclusion: Our study shows that GRD and anthropometric techniques are most simple and inexpensive methods than the others, but mammographic calculation technique is the best in accuracy.

552 Poster

Bilateral breast carcinoma – synchronous and metachronous lesion – a retrospective analysis from a tertiary center in south India

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Background: synchronous lesions, presents at the time of the primary lesion. Metachronous presents after a period of 6 months since the primary. Bilateral carcinoma breast is a rare condition and the treatment and the clinical profile is not clear in the literature.

Materials and Methods: Study is among carcinoma breast patients who had from 1997 to 2004. 19 among 604 [3%] had bilateral carcinoma breast.

Results: Family history was not significant. Except 4 all were post menopausal [79%]. Out of 19, 10 [53%] had synchronous, 8 post menopausal. 7 had T1T2 lesion with median size of 2.8 cms. 3 were detected by mammogram. Primary lesion medium size 6 cms, N1 disease. Total mastectomy axillary clearance in 6, sampling in 4 for the primary lesion. 4 had preoperative chemotherapy with FAC. 8 had ERPR negative. Infiltrating duct in 90% and rest had lobular carcinoma in situ. Synchronous lesion, 6 mastectomy with clearance, no post operative radiation. Nodes were negative for disease. 2 lost follow up. FAC was commonly used. Mean follow up was 48 months, One had skeletal mets and expired. Tamoxifen was used as per the ERPR. Among the 9 metachronous lesion 6 [67%] was picked by by mammogram. 3 were diagnosed as TIT2 with an average size of 3.1 cms during followup. The interval between the primary and contralateral lesion varies from 1 year to 18 years with mean of 72 months. Wide local excision axillary clearance in 3, SM+ANC was done in others due to patient choice. No radiation was used in the mastectomy group. ERPR was same. 90% had infiltrating carcinoma, 2 had positive nodes. FAC was used in 2. Average follow up was 48 months.

Conclusion: The incidence is 3% and the commonest tumour is infiltrating duct carcinoma. More common in postmenopausal, the mean interval of metachronous lesion is 72 months. Bilateral mastectomy may be a better choice as radiation to one lung can be avoided. Disease free survival and Overall survival is not influenced by bilateral disease.

553 Poster

Trans-axillary retro-mammary (TARM) approach of video-assisted breast surgery (VABS) applied for breast conserving surgery of cancers even on inner-side of the breast

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Background: The endoscopic surgery for the breast is aesthetic and less-invasive. For cancers on inner-side of the breast, it is usually performed by periareolar approach, but it often makes deformation or malposition of nipple and areola and sensory disturbance. The trans-axillary (TA) approach is favorable without making any injuries on breast skin. Furthermore, we devised a new approach of retro-mammary (RM) route without subcutaneous exfoliation, from axillary skin incision, to preserve skin touch sensation.

Materials and Methods: We have performed video-assisted breast surgery (VABS) on 220 patients since December, 2001. The newly devised trans-axillary retromammary-route approach (TARM) was performed on 20 patients of early breast cancer. After endoscopic sentinel lymph node biopsy, we lengthened the axillary skin incision to 2.5 cm, and dissected retromammary tissue on major pectoral muscle fascia below the tumor, using endoscopic vein harvester (Opitcal Retractor®). The working space was made by lifting traction sutures penetrated from the skin through the gland. We cut the gland vertically at free margin 2 cm apart from the tumor edge toward the subcutane, and dissect skin flap over the tumor. The breast reconstruction was simultaneously performed by filling absorbable fiber cotton (oxidized cellulose). The aesthetic results were evaluated by ABNSW original soring system (A: asymmetry, B: breast, N: nipple, S: skin, W: wound).

Results: Traction sutures made it easier to cut the mammary gland vertically. We did not experience any skin damages like burn. All surgical margins were negative. The operation time was needed 30 min longer but the blood loss was not different. The postoperative aesthetic results were all excellent. The sensory disturbance was minimum. All patients were satisfied with this operation.

Conclusions: This newly devised TARM approach need no injury on whole breast, and can become a single standard method for breast conserving surgery wherever the cancers situated.

554 Poster

Breast reconstruction using latissimus dorsi myocutaneous flap with dorsal skin expansion

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The author presents an alternate procedure for delayed breast reconstruction using a temporary tissue expander under the thick back skin or the Latissimus Dorsi Muscle and posterior breast reconstruction by rotating the Latissimus Dorsi myocutaneous flap.

The present technique was used in 12 patients.

Two major advantages were observed such as avoiding the use of immediate tissue expander onto the area to be irradiated.The other would be fulfilling the soft tissue requirements for coverage of irradiated breast and thus surpassing the availability of donor site skin which was achieved in a group series of twelve patients. The expanders were located under the