

Conclusions mFI and high complexity surgery are predictive of Severe and Overall Complications. Patients' pre-operative care profile evaluation may guide specialists in reducing, preventing and managing complications correctly. mFI seems to be effective in identify high-risk patients and represent a valuable tool to help health professionals in providing risk counseling and discussion of management for women undergoing surgery for gynecologic cancer.

Breast Plenary

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MRI-BASED PREDICTIVE FACTORS OF AXILLARY LYMPH NODE METASTASES IN BREAST CANCER

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Objectives To determine the accuracy of MRI in detecting axillary lymph nodes (ALNs) metastases preoperatively and to define predictive characteristics of ALN involvement in patients with invasive breast cancer.

Methods Breast MR (3 Tesla) examinations of 169 patients with invasive breast cancer were reviewed at Hôtel-Dieu de France Hospital. Morphological parameters in addition to apparent diffusion coefficient (ADC) value were compared with pathological nodal status.

Results The sensitivity and specificity of MRI in detecting ALN involvement were 87.5% and 55.6% respectively. The negative and positive predictive value of MRI was 81.64% and 66.34% respectively. The mean size of metastatic ALN was larger than that of negative ALN (13.9 mm vs. 10.9 mm, $p = 0.000$). ALNs larger than 12 mm were associated with higher risk of metastases ($p = 0.000$). The asymmetry of size between ipsilateral and contralateral ALNs was more significant in positive ALNs on pathology ($p = 0.008$ vs. 0.043). In a univariate analysis, the round shape of ALN, loss of fatty hilum, irregular contours and hypo-intensity/heterogeneous intensity on T2-weighted sequence were significantly predictive of lymph node metastasis ($p = 0.000$ for the four characteristics). In a multivariate analysis, only the round shape of lymph node and the hypo-intensity/heterogeneous intensity on T2-weighted sequence were significantly associated with lymph node metastasis ($p = 0.01$ and $p = 0.018$ respectively). The ADC value of ALN did not aid the differentiation between benign and metastatic lymph nodes ($p = 0.862$).

Conclusions Conventional MRI using the ALN shape and the signal intensity in T2-weighted sequences can evaluate the axilla with high sensitivity.

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SHOULD WE OFFER MULTI-GENE TESTING TO ALL PATIENTS WITH BREAST CANCER: A COST-EFFECTIVENESS ANALYSIS

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Objectives To estimate incremental lifetime-effects, costs, cost-effectiveness and population impact of multigene-testing all BC patients compared to current practice of family-history/clinical-criteria based genetic (BRCA)-testing.

Methods Cost-effectiveness microsimulation modelling study comparing lifetime costs-&-effects of BRCA1/BRCA2/PALB2 (multigene) testing all unselected BC-cases (Strategy-A) with family-history/clinical-criteria based BRCA1/BRCA2-testing (Strategy-B) in both UK and US populations. Data obtained from 11,836 population-based BC-patients (regardless of family-history) recruited to four large research studies in the UK (Predicting-Risk-of-Breast-Cancer-at-Screening (PROCAS: 1389 out of 57,000 women) & Prospective-Outcomes-in-Sporadic-versus-Hereditary-breast-cancer (POSH: 2885) studies); US (Kaiser-Permanente Washington Breast-Cancer-Surveillance-Consortium (BCSC) registry: 5892 out of 132,139 women) and Australia (Population-based BC-cases of the Australian-Breast-Cancer-Family-Study (ABCFS: 1670 women)). The main outcome measure was the incremental cost per quality-adjusted life-year (QALY) gained with a 3.5% annual discount. Parameter uncertainty was explored using one-way and probabilistic sensitivity analyses.

Results Compared with current clinical-criteria/family-history-based BRCA-testing, (BRCA1/BRCA2/PALB2) multigene-testing for all BC-patients would cost £10,470/QALY (UK) or \$58,702/QALY (US) gained, well below UK/NICE and US cost-effectiveness thresholds of £30,000/QALY & \$100,000/QALY. Probabilistic sensitivity-analysis shows unselected multigene-testing remains cost-effective for 98% UK/77% US health-system simulations. One year's unselected panel-genetic testing can prevent 1,776 BC/OC-cases and 557 deaths in the