of most breast tumors. Among them, benign breast disease (BBD) has a high prevalence and a noticeable impact on women's quality of life and for certain histological types, increases breast cancer (BC) risk. Epidemiological studies of BBD faced major difficulties since they included a wide range of pathological conditions that are associated with varying risks of BC. In recent years, attempts have been made to improve the standardization of histological classification for CNB including high risk lesions.

Aim: Hence, the objective of this study was to examine the pattern of breast diseases diagnosed by CNB using the B-classification for histopathological categorization.

Methods and Results: The studied population included asymptomatic and symptomatic women with breast imaging abnormalities who were referred to the Saint Pierre University Hospital for CNB after clinical and radiological examination between 2002 and 2010 (n total:2214). CNB was performed by stereotactic- or ultrasound guided automated gun method. Years 2002 and 2010 were compared.

Results of CNB (according to the B classification system)

Year	CNB/total radiological examination (%)	B1 (normal/No diagnosis)	B2 (benign)	B3* (uncertain malignant potential)	B4 (suspicious of malignancy)	B5 (malignant)
2002	45/512 (11.38%)	17/45 (37.8%)	14/45 (31.1%)	0	0	14/45 (31.1%)
2010	449/6070 (13.49%)	75/449 (16.7%)	200/449 (44.5%)	18/449 (4%)	0	156/449 (34.7%)

*B3 lesions included atypical intraductal epithelial proliferations, lobular neoplasia, papillary lesions, radial scars, and potential phyllodes tumors.

In women aged 50 or less, B2 lesions were diagnosed in 11 cases (45,8%) and 132 (55,9%) during the years 2002 and 2010 respectively; B3 in 13 (5,5%) for year 2010; B5 in 5 (20,8%) and in 49 (20,8%) for years 2002 and 2010 respectively.

Conlusion: Our results show a gradual increase in the number of CNB performed in our breast unit in parallel with the radiological examinations carried out. Observed increase in CNB rates reinforces the need to carefully select patients amenable for biopsy to achieve efficient, efficacious, and cost-effective programs for early detection of BC. The increase in CNB results of 'uncertain malignant potential' (B3) stresses the importance of applying a decision-making algorithm for diagnosis and treatment in order to decrease BC risks in this increasing population.

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Health-related Quality of Life After Stereotactic Vacuum Assisted Breast Biopsy System Utilizing Radio Frequency − Breast Lesion Excision System (BLES)

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Background: Breast Lesion Excision System by Intact® (BLES) is a novel stereotactic, vacuum-assisted breast biopsy device that utilizes radiofrequency in order to excise suspicious non palpable mammographic lesions according to the BI-RADS system, for histologic diagnosis. The impact of BLES assisted breast biopsy upon Health-related Quality of Life (HRQoL) remains an open field for investigation and this study aims to evaluate short-term responses in terms of HRQoL after BLES.

Material and Methods: This study included 107 consecutive women with suspicious non palpable mammographic lesions in a 8-month time frame. Inclusion criteria were microcalcifications, solid lesions and asymmetric densities, all classified as BI-RADS⩾4. All patients were informed about the method by reading the same leaflet that has an informed consent purpose. HRQoL was measured using the EQ-5D questionnaire and all patients were asked to complete the questionnaire just before the BLES procedure and four days after, prior to obtaining the pathologic diagnosis. The EQ-5D questionnaire encompasses five parameters: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. Each one of these factors has three levels: no problems, some problems and extreme problems/unable. Furthermore, EQ-5D contains a visual analogue scale for patients to rate their own health from zero to 100 (EQ-5D VAS 'thermometer').

Results: Evaluation of patients' responses the morning before the BLES assisted biopsy and four days after the procedure showed that there was no alteration in mobility and self-care. One patient (0,9%) switched from 'some problems' to 'no problems' concerning usual activities and ten patients (9.3%) reported that pain/discomfort increased whereas six (5.6%) that pain/discomfort decreased. None of these differences was statistically significant. Comparison of the values concerning anxiety/depression and own health showed that there was statistically significant difference between the responses before and after the procedure. Anxiety/depression was significantly (p < 0,0001) reduced while eight (7.5%) patients reported

that their anxiety/depression increased and 31 (29%) that anxiety/depression decreased. Self-assessed health was significantly improved (p < 0,0001) while using the visual analogue scale, 57 patients (53.3%) rated their own health as better than before the procedure of B.L.E.S. assisted biopsy and only 14 (13.1%) as worse.

Conclusions: Vacuum assisted breast lesion excision system (BLES) for biopsy of suspicious non palpable mammographic lesions is a safe and effective diagnostic method which seems not to influence in a negative way the HRQoL of patients, in a short-term period after the procedure. Moreover, the use of BLES seems to positively affect self-assessed health and reduce the patients anxiety/depression. These statements indicate that, in the future, BLES assisted biopsy could become a first-line biopsy method.

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Correlation Between FDG-PET/CT and Pathological Features in Primary Breast Cancer

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Goal: We evaluated the usefulness of preoperative FDG-PET/CT(positron emission tomography/computed tomography) examination to predict the pathological features and select the treatment strategy in primary breast cancer. Especially we evaluate correlation between SUVmax (max standard uptake value) of FDG-PET/CT and Ki67 expression in invasive carcinoma, and Van Nuys Prognostic Index (VNPI) in DCIS.

Methods: Primary breast cancer patients operated between March 2009 and November 2010 in Okayama University Hospital were enrolled. We evaluated correlation the SUV max with postoperative pathology (diameter of invasive lesion (pT), histological grade, vessel invasion), status of ER, PgR, HER2 and Ki67 and node status. Status of Ki67 expression was classified 0−5%, 5−15%, 15−50% and >50%. DCIS and predominantly DCIS which have micro invasive component (<5 mm) were evaluated total tumor size and VNPI (low, intermediate, high).

Results: 86 patients with primary breast cancer were enrolled. Invasive cancers and DCIS were 78 (8 patients with predominantly DCIS) and 8. The median SUVmax in invasive ductal carcinomas was 3.35 (range: 0−52.57). In univariate analysis, SUV max related significantly with pT (p = .0001), Grade (3 > 1.2; p = .001), ly (0,1 > 2,3; p = .024), ER (negative > positive; p < 0.0001), PgR (negative > positive; p = .0007) and Ki67 (high > low; p = .0051). pT (p = .0024) was significant relative factor of SUVmax in multivariate analysis. The DCIS patients with high VNPI had comparatively higher level of SUVmax than those with low VNPI. In the evaluation of node status, sensitivity and specificity of preoperative PET/CT were 43% and 100%.

Conclusion: The preoperative FDG-PET/CT of the primary breast cancer had significantly relation with pathological status. pT was the strongest relative factor of FDG-PET/CT.

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18F-FDG PET-CT Compared to Conventional Staging Procedures in Patients with Advanced Breast Carcinoma

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Purpose: To compare the diagnostic yield of standard dissemination investigations according the Dutch Guidelines (chest X-ray, ultrasound of the liver and bone scintigraphy) in patients with advanced breast cancer with total-body18F-FDG PET-CT.

Methods and Materials: In all patients with advanced breast cancer between march 2009 and june 2011 18F-FDG PET-CT and conventional imaging procedures were performed. All investigations were done within a 14 daystime frame. Suspected lesions, found in either modality, were confirmed by additional imaging techniques and/or pathology.

Results: 51 patients, all women, mean age 59.9 year (min-max 31−85 y)) were included in the analysis. Dissemination investigations were indicated preoperatively in 34 patients (13 patients with primary tumors (>cT4, N2) and 21 with suspicion of recurrent disease), and postoperatively in 17 (>pN2).In the 34 patient's no metastasis were found in both modalities in 21 cases. Conventional imaging showed metastasis in 4, and PET-CT showed metastasis in 9 additional patients. These were metastasis in bone (n = 2), pulmonary (n = 1) andsupraclavicular (n = 6). In the 17 patients that were investigated direct postoperatively because of >pN2 status, 10 patients had no metastasis in both modalities, conventional imaging showed metastasis in 2, PET CT scan showed metastasis in 5 additional patients. These were metastases of bone (n = 3), pulmonary (n = 1), axillary (n = 3) andsupraclavicular (n = 1).All suspected lesions on