good precision. The implementation of FSMW into clinical practice may improve early detection, prognosis and therapy monitoring of BC patients. The method may also allow the molecular analysis of the captured cells, with the possibility of establishing more personalized treatment regiments.

62 Poster

Comparison of Axillary Nodal Status Between Clinical, PET Scan and Pathological Staging in Breast Cancer

P. Rajkumar[1], A.c. Suresh Kumar[2], K. Alfred Deepak[3]. *[1]Dr. Kamakhsi Memorial Hospital, Division of Surgical Oncology, Chennai, India; [2]Dr. Kamakhsi Memorial Hospital, Nuclear Medicine, Chennai, India; [3]Dr. Kamakhsi Memorial Hospital, Radiology, Chennai, India*

Background: Axillary lymph node dissection in breast cancer patients poses significant morbidity. Even though sentinel lymph node can determine the earliest metastases and guide in avoiding axillary dissection, still it is an invasive procedure. We have studied the sensitivity and specificity of PET scan in determining the axillary nodal metastases.

Materials and Methods: All breast cancer patients non metastatic at presentation were evaluated. Patients who found to have distant metastases/supraclavicular nodes during workup were excluded. Over a period of one year 45 patients without any distant metastases at presentation were worked up with 18-FDG PET scan. Those who had distant metastases or N3 disease were excluded. The clinical axillary nodal status was then compared with PET scan status of the axillary nodes. All the 45 patients then underwent modified radical mastectomy and axillary nodal clearance from level I−III. Standard histipathological examination was carried out in all the patients and this pathological N status was compared with clinical and PET scan results.

Results: The above results were then analyzed with Bayesian statistical analyzer. The sensitivity and specificity of clinical examination alone in detecting pathological nodes was 54% and 74% respectively whereas that with PET scan was 83% and 82%respectively.Two of the false positive PET patients were with h/o autoimmune disease.

PET and Path. N status

PET SCAN	pN +	Pn−	Total
Positive	19	4	23
Negative	4	18	22
Total	23	22	45

Conclusion: 18-FDG PET scan has high sensitivity and specificity in detecting pathological axillary nodes compared to clinical examination alone. Future studies comparing sentinel lymphnodes and PET scan are required to find their exact specificity. Results in patients with autoimmune disorders have to be interpreted with caution.

63 Poster

Breast Lesion Excision System for Diagnosis of Suspicious Non-palpable Breast Lesions: Does Thermal Tissue Damage Affect Diagnosis and Outcome?

W. Al-harethee[1], I. Papapanagiotou[1], V. Kalles[1], M. Matiatou[1], G. Georgeiou[1], A. Nonni[2], P. Liakou[1], G. Theodoropoulos[1], G.C. Zografos[1]. *[1]Hippocrateion Hospital Athens Medical School, Breast Unit 1st Department of Propaedeutic Surgery, Athens, Greece; [2]School of Medicine University of Athens, Department of Pathology Athens, Athens, Greece*

Background: The Breast Lesion Excision System ® (BLES) is an image-guided percutaneous biopsy device that utilizes radiofrequency in order to retrieve an intact, suspicious, non-palpable breast tissue specimen for pathologic diagnosis. An acceptable size of thermal artifact varies between 0.1 mm and 1 mm. The purpose of this study is to determine the effects of radiofrequency on the specimen tissue analysis due to thermal damage.

Materials and Methods: This prospective clinical study included 226 consecutive patients with suspicious, non-palpable mammographic lesions (BIRADS $\geqslant$ 4) that underwent 234 stereotactic, vacuum assisted breast biopsy procedures from June 2008 to December 2010 at Breast Unit, Hippocrateion Hospital of Athens with the use of BLES. Inclusion criteria consisted of suspicious breast lesions and in particular microcalcifications, solid lesions and radial scars. In order to retrieve an intact biopsy specimen, a 12 mm, 15 mm or 20 mm tissue basket was used, depending on the size of the lesion. The biopsy in all cases was performed under local anesthesia by the same team. According to the pathology report, we classified thermal damage in 3 categories: severe (recognition of malignant cells but inability to make definite diagnosis due to thermal damage), medium (ability to make diagnosis but either circumferential thermal damage >2 mm or diffuse areas of thermal damage) and mild (circumferential thermal damage 1−2 mm). The follow up period for all patients was 6 months.

Results: The procedure was considered successful in all cases with mammographic (specimen and patient) confirmation of proper excision. In three cases the basket initially failed to deploy and a second basket had to be utilized in order to complete the biopsy. Thermal damage of the specimen occurred in 12 cases (3.59%). The damage was severe in 4 specimens (3 benign, 1 IDC), medium in 4 specimens (4 benign) and mild in 4 specimens (3 benign, 1 IDC). Among the patients with severe specimen damage, those with benign lesions were followed up at 6 months, and the patient with IDC received appropriate surgical treatment. Among the patients with medium specimen damage, those with benign lesions were typically followed up at 6 months. The patients with mild thermal damage and benign diagnosis were also followed up at 6 months, and the patient with IDC received appropriate surgical treatment.

Conclusions: In summary, although thermal damage is of concern during breast biopsy with the use of BLES, the incidence is very low. Even severe cases of thermal damage do not seem to affect the outcome of the pathology report. When medium or severe thermal damage occurs, patients with lesions diagnosed as benign should be followed up closely, although repeating the biopsy with alternative methods (e.g. open biopsy) should also be considered, in case of any clinical suspicion.

64 Poster

An Innovation in Breast Cancer Care in Ottawa, Canada: the Evaluation and Validation of a Rapid Diagnostic and Support Clinic for Women Assessment for Breast Cancer

A. Arnaout[1], J. Seely[2], S. Robertson[3], S. Smylie[4], K. Knight[2], S. Lad[2], J. Watters[1]. *[1]The Ottawa Hospital Women's Breast Health Center, Surgery, Ottawa; [2]The Ottawa Hospital Women's Breast Health Center, Breast Imaging, Ottawa; [3]The Ottawa Hospital Women's Breast Health Center, Pathology, Ottawa; [4]The Ottawa Hospital Women's Breast Health Center, Nursing, Ottawa*

Background: The diagnostic phase of care is an extremely anxiety-provoking and stressful experience for the potential breast cancer patient and her family. Early detection and treatment are the best options for improving outcomes in breast cancer. A multidisciplinary team of breast cancer specialists in a regional referral center embarked on a new initiative to improve breast care by setting up a *Rapid Diagnosis and Support (RADS) Clinic* to coordinate the diagnostic imaging workup, needle biopsy and pathological diagnosis for women with suspicious initial diagnostic mammogram findings. A prospective study was performed to evaluate the effectiveness this innovative service delivery model aimed wait times, decreasing the fragmentation of care and enhancing a patient's overall breast care experience.

Methods: Consecutive patients with initial diagnostic mammograms classified as BIRADS 5 were invited to participate in the study. Interventions in the model included prioritizing biopsy appointments, initiating followup diagnostic imaging, providing support and coordination of care by a nurse navigator. Wait times (measured in business days) were evaluated at three different intervals; from a) diagnostic imaging to biopsy b) biopsy to pathology report verification, and c) diagnostic imaging to MRI. Patient satisfaction surveys were completed. All data post intervention were compared to historical data at our breast center. Statistical analysis was performed with paired and Wilcoxon t test analysis.

Results: A total of 88 BIRADS 5 patients consented to the study between March and Sept 2011. Eighty-two (93%) patients had either invasive carcinoma or DCIS that necessitated surgery. All wait times significantly improved after initiation of the RADS Clinic. Biopsy wait times improved from a mean of 6 to 2 days ($p < 0.0001$); pathology verification from 4 to 3 days ($p = 0.03$); and MRI wait times from 9 to 7 days ($p = 0.017$). Eighty-five (97%) patients rated the care and support they received from RADS clinic as 'excellent' or 'very good', and 97% of patients felt completely satisfied that they were cared for in a timely manner.

Conclusion: The Rapid Access and Diagnostic Clinic significantly improved diagnostic wait times and overall experience for patients with a highly probable diagnosis of breast cancer and can serve as an innovative service delivery model for other breast care centers.

65 Poster

Trends in and Pattern of Breast Diseases Diagnosed by Core Needle Biopsy − an 8-years Experience of a Breast Unit

V. Liénart[1], N. Sirtaine[1], M. Van Beveren[1], D. Fontaine[1], B. Carly[1], P. Cusumano[1], M. Fastrez[1], B. Beier[1], I. Jeanjot[1], F. Liebens[1]. *[1]CHU Saint-Pierre, ULB University, Brussels, Belgium*

Background: With advances in imaging techniques, percutaneous core needle biopsy (CNB) has become the standard of care in the diagnosis