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Granular Cell Tumor of the Breast –report of two cases-

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[Introduction] Granular Cell Tumor(GCT) is known as a tumor of Schwann cell which is often seen in skin and tongue. Development of GCT in mammary gland is relatively rare with only 5-6% of all GCT. Despite the minority of the GCT among the breast diseases, it may be important to recognize this disease because of similarlity to breast cancer in the point of physical examination and its imaging. Here we report two surgical cases of GCT. [Case 1] A 61-year-old woman. Ultrasound of the left breast at AB area revealed less clear heterogineous mass with 3.8 mm in size. Invasive ductal carcinoma was suspected by MRI. Pathological findings of biopsy revealed GCT. Surgical excision was performed including the skin just above the tumor. [Case 2] A 52-year-old woman . A palpable firm mass with skin retraction was noted close to the axilla of the left breast. Ultrasound revealed a hypoechoic mass with 14 mm in size . Pathological findings of the core needle biopsy revealed GCT. Surgical excision was performed with an adequate margin. Both cases were positive for S-100 in permanent pathological diagnosis. There was no evidence of malignancy. [Conclusion] Malignant GCT are rare with 1-2% of all GCT, and five cases were reported in the mammary gland with spreading to other organs or lymph nodes. It is reported that chemotherapy or radiation is not effective and surgical resection is the only effective treatment opsion. While there may be no local recurrence even if surgical margin is positive in benign cases, positive margin is the risk of local recurrence in malignant caess. Due to difficulty of diagnosis of malignant or benign before surgical resection, tumor excision with adequate margin is recommended for GCT.

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Cowden disease of breast: case report

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Cowden disease is one of the PTEN hamartoma tumor syndromes (PHTS). Besides multiple hamartomas in a variety of tissues, patients have characteristic dermatologic manifestations such as an increased risk of breast and endometrial benign and malignant tumors. Recently, we experienced a case of Cowden disease.

A woman in her 60`s presented to us who had had bilateral palpable masses in her breasts and right brachialgia for two years. She was diagnosed with bilateral breast cancers and multiple bone metastases (right-upper arm bone and lumbar spine) and treated with irradiation, bisphosphonate and endocrine therapy. A bilateral mastectomy was conducted to reduce the risk of bleeding. Additionally she was diagnosed with Lhermitte-Duclos disease in her right cerebellum by brain MRI after the surgery. It was suspected to be Cowden disease and confirmed by genetic testing of PTEN.

Breast cancer occurrence in patients with Cowden disease is rare, so that we made a report with a literature of reference.

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A case of paraneoplastic neuromyelitis optia associated with primary breast cancer.

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Background: Neuromyelitis optica (NMO) is a severe autoimmune inflammatory demyelinating disease of the central nervous system which affects the optic nerves and spinal cords. NMO occasionally develops in patients with malignant neoplasm, although their relationship is not clear and no effective therapy has been established.

Objectives: To report a case of NMO with primary breast cancer received neoadjuvant chemotherapy for breast cancer and improved neurological symptoms.

Case: A 64-year old woman had intractable hiccups and numbness of both lower extremities and these symptoms got worse in several days. She finally had bladder and rectal disturbance, and paralysis of both lower limbs, then be hospitalized.
Magnetic response imaging (MRI) showed hyperintense on T2-weighted image in the dorsal of medulla oblongata and the spinal cord in level of Th2-Th5. Medical history and examination image indicated that she had NMO. Serum Aquaporin-4 antibody (AQP-4 Ab) was also positive and she was diagnosed as NMO.
Then she received screening computed tomography (CT) which revealed a right breast tumor and swelling of axillary lymph nodes, and she was diagnosed with breast cancer (Invasive ductal carcinoma, cT2N2aM0/cStageⅢA, ER0% PgR0% HER2(3+) Ki67 40% Grade2). We assumed the possibility of paraneoplastic NMO associated with breast cancer.
Both steroid pulse therapy and plasmapheresis had no efficiency, so we started treatment for breast cancer with neoadjuvant chemotherapy (nab-Paclitaxel 260mg/㎡+Trastuzumab every 3 weeks). After 3 cycles of chemotherapy, she become to walk while holding on to something and she left our hospital. After 6 cycles, serum AQP-4 Ab turned to be negative and we performed the surgery for breast cancer. It was diagnosed that the pathological effect for neoadjuvant chemotherapy was so good, and she is now receiving adjuvant chemotherapy in our outpatient department.

Conclusions: When breast cancer patients have progressive neurologic dysfunction without apparent central nervous system metastasis, we should consider the possibility of paraneoplastic neurological syndrome (PNS) and examine enhanced MRI of spinal cord. Though the standard treatment for NMO in the acute period is steroid pulse and plasmapheresis, treatment for malignant neoplasm might be effective for intractable cases when they have malignant neoplasm.

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Controversies of adjuvant therapies in our two cases which are considered to be in the N1 low risk group

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Some trials which include ACOSOG Z0011 and IBCSG 23-01 demonstrated that the omission of axillary dissecton had no worse effect, and axillary irradiation had no much better effect for patients with sentinel-node metastasis. Do omissions of both axillary dissection and irradiation provoke worse effect for the patients? Should medical therapies be augmented in such omissions of local therapies? We present two cases which provide these controversies and would like to ask opinions from the audience. ① A premenopausal 48 year old woman had left breast cancer (T2N0M0) and mastectomy with sentinel lymph node biopsy. On the frozen section, the sentinel nodes were negative (0/4), but turned out to be positive (1/4, micrometastasis) on postoperative pathological examination. The main tumor showed NG1, ER(+, 90%), PgR(+, 50%), HER2(1+), Ki-67(8%). Can we omit both axillary dissection and irradiation? Can't we omit chemotherapy? Should hormonal therapy contain both LHRH agonist and tamoxifen instead of tamoxifen alone? ② A postmenopausal 60 year old woman had left breast cancer (T1N0M0) and partial mastectomy with sentinel lymph node biopsy. On the frozen section, the sentinel node was positive (1/1, macrometastasis). Could we omit axillary dissection? We performed axillary sampling which was navigated by ICG fluorescence method. The postoperative pathological examination showed totally one metastasis (1/7). The main tumor showed NG1, ER(+, 99%), PgR(-), HER2(0+), Ki-67(1%). Radiotherapy was done for the left breast. Oncotype DX recurrence score was 19. Can we omit chemotherapy?

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Subsclavian vein stenting effective in patients with upper limb edema following breast tumor recurrence: A Case Report

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Purpose:
Arm edema with lymph node metastasis is a refractory symptom and it decreases QOL in the long term. Recently, we had a case to treat arm edema with lymph node metastasis by Interventional Radiology (IVR), subclavian catheter.

Patient:
The patient was a 69 year old woman who was diagnosed with right breast cancer (T3N1M0, Stage IIIA), a mastectomy was performed and she was treated with adjuvant chemotherapy (CEF 4 cycles and Docetaxel 4cycles) in 2005. There were right axillary lymph node metastasis and supraclavicular lymph node metastasis (ER negative, PgR negative, HER2 3+). We administrated trastuzumab and vinorelbine from 2005 to 2009. We treated the right supraclavicular, subclavicular and axillary lymph node area by irradiation because of progressive disease. After irradiation, we changed regimen from vinorelbine to capecitabin from August 2012. Her ADL worsened rapidly and she couldn’t use chopsticks due to arm edema with eruption, suffusion and sensation of burning. Diagnosis of progressive disease was by PET-CT in July 2013. There were interruption of blood flow to the subclavian vein detected by contrast enhance CT. We performed a brachial venography to judge indication of IVR.

Methods:

We were able to diagnose venous edema because her blood flow was obstructed from axillary vein to subcluvian vein with collateral blood flow by brachial venography testing.

We succeed in blocking the released obstruction by guide wire with the brachial vein approach. Subsequently, she underwent balloon dilation and stent placement (Luminexx, 10mm×4cm). As a result of IVR, the venous return and collateral blood flow were recovered.

Results:

Her arm edema and ADL was significantly improved only hours after undergoing IVR. The blood flow recovery was confirmed two days later by brachial venography testing. We made a report with a bibliography.

Conclusion:

Suzuda et al. described that there are two reasons for lymph edema after breast surgery, one is the lymphatic edema, the other is venous edema and IVR is a useful method to treat lymph edema. Stent placement to a subclavian vein obstruction is an easy and safe method for interventional radiologists because it often performed for dialysis patients.

In conclusion, IVR for a breast cancer patient who has experienced onset of lymph edema with subclavian vein obstruction is very useful.

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Induction of digital breast tomosynthesis system both on diagnostic and screening mammography

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We have inducted digital breast tomosynthesis(DBT) system (SELENIA Dimensions, Hitachi Medico, Tokyo) on breast imaging which was applied both for diagnostic and screening mammography. Tomosynthesis is applied routinely on the MLO position and added on CC position on demand. The final judgment of the image was decided by a meeting consists of two surgeons and two radiologist. Each member is approved by The Central Committee on Quality Control of Mammmographic Screening.

From the April 1st through August, 673 women were examined and 111cases were diagnosed as category three or more. Forty two of the 461 (9.1%) screening cases were judged to need further investigation. Of the 212 diagnostic mammography, 75cases were diagnosed as category upward of three, including 21 known breast cancer and 12 new cancer patients.

Through DBT, fine disorders of the breast, such as focal asymmetric density and small architectural distortion can be easily detected by reading the image into many sliced divisions. On the contrary, we loss the time at outpatients clinic because of walking into the reading room, where the only monitor system is located.

DBT is a good modality to diagnose the breast lesions more accurate and we will to use the system more efficient by managing correctly.

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A Case of Bilateral Mastectomy For Bilateral Breast Cancer with a Suspected Genetic Predisposition: Imai A[*1] , Tanaka A[*1] , Shinkura N[*1] ([*1]Kyoto Breast Center Sawai Memorial Clinic)

When a genetic predisposition is suspected, we need to give careful consideration to a surgery of breast cancer. We report a case of bilateral mastectomy for a patient of bilateral breast cancer with a family history －3 close blood relatives with breast cancer－ who was suspected of hereditary breast cancer.

A 49-year-old woman was admitted to our clinic with grouped micro-calcifications in the right breast on a screening mammography. Her mother, grandmother and aunt were diagnosed with breast cancer. Upon clinical examination, no mass was palpated. She was submitted for ultrasound scanning, magnetic resonance imaging, and ultrasound-guided core needle biopsy, then she was diagnosed with right breast cancer (cTisN0M0) and left breast cancer (cT1bN0M0). Bilateral mastectomy (Bt + SLNB) were performed. After operation, she underwent BRCA1/BRCA2 testing and neither BRCA1 nor BRCA2 has mutation. This result, however, does not eliminate the possibility of hereditary breast cancer susceptibility. We try to question carefully about patients' family history and utilize it for daily practice.

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Importance of screening and genetic testing regarding Hereditary Breast and Ovarian Cancer Syndrome

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Introduction:

We started providing genetic counseling to patients regarding Hereditary Breast and Ovarian Cancer Syndrome (HBOC) to undergo appropriate genetic testing within NCCN guidelines from January 2013.

There were 10 patients (four patients were pre-operation, six patients were post-operation) who receive HBOC genetic testing and there were three patients who had BRCA1/2 mutation. Case reports of two patients are as follows.

Case 1:

The patient was a 53 year old woman who was diagnosed with breast cancer and we planned breast conserving therapy before genetic counseling. As a result of genetic counseling, we made a recommendation to her to receive BRCA genetic testing. There was BRCA 2 mutation was found and we changed operative procedure from breast conserving therapy to skin-sparing mastectomy.

Case 2:

The patient was a 71 year old woman who had received breast conserving surgery three years previously. We suggested the possibility of HBOC by taking her family history in the follow-up treatment. She wanted to receive genetic counseling and HBOC genetic testing and BRCA 2 mutation was found.

Conclusion:

It is important to take a family history within NCCN guidelines in not only preoperative status, but also follow-up treatment. Prophylactic therapy is an important matter that is under consideration.

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Treatment results of Eriblin mesylate with or without Trastuzumab for metastatic breast cancer patients

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【Purpose】
To investigate the adequate position of eriblin with or without trastuzumab at the metastatic breast cancer (MBC) patients.
【Patients and Methods】
A total of 22 female patients with anaverege age of 60 years old,12 administerd with only eribrin and 10 patients administered with combination of eriblin and trastuzumab Between July 1,2011 to June 31,2013.
【Results】
The overall clinical benefit rate(CBR) is achieved 50%. This is equal or greater results than oversea's PhaseⅢtrial.The CBR of HER2-positive MBC patients administerd with trastuzumab combination therapy is achieved 60.0%.This is equal results to oversea's phase Ⅱ trial. We examined the situation of progression disease(PD), and so it has shown that there were few appearances of the new lesion.Eriblin when we used by the third line, significantly improves progression-free survival(PFS) in comparison with when we used after forth line.
【Conclusion】
We thought that Eriblin is a disarable drug to use earlier line .

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The benefits of gemcitabine/ trastuzumab combination therapy after capecitabine/ lapatinib for the patients of severe advanced breast cancer

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There is no detailed criterion how to use the regimens for HER2 positive, advanced or recurrent breast cancer after experience of trastuzumab (Tr) treatment other than extending the Tr treatment. The combination therapy by lapacinib (Lap) and capecitabine (X) is usually used from second regimen or later and the next regimen is undefined. We investigated the eight cases of trials by gemcitabine (Gem) and Tr subsequent to Lap and X from January 2010 to October 2012, who had the experience of Tr treatment. Patient's ages are ranged from 40 to 70 (average 57). The regimen is from third to nineth (average 5.7th). All case had invasive ductal carcinoma. The subtypes are three Luminal B types and five HER2 types. All cases had multiple metastasis (6 cases each of brain, lung, live, 4 cases of bone, 2 cases of skin and one case of pleura). Durations of the therapy are 35 to 306 (average 194, eight cycles) days. No neutropenia was led for them and three cases had the remarkable decrease of tumor markers, and six cases kept long SD. The combination therapy of Tr and Gem after Lap and X provided no severe side effects, and will be proissing to control the tumor progression with good quality of life for relatively long time for the patients of severe advanced breast cancer.

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Prognosis of patients with breast cancer-associated carcinomatous peritonitis and cancerous ascites

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The prognosis of patients with breast cancer-associated carcinomatous peritonitis and cancerous ascites (cases definitely diagnosed by cytology and histology (P cases)) is generally considered poor. When the above conditions are diagnosed, the patient is regarded as in the ‘terminal stage’, and indicated for only palliative medicine.

We encountered only 47 P cases in patients with metastatic breast cancer (MBC) between 2001 and April 2013, showing a low incidence, and most cases manifested as secondary metastasis. When the systemic condition is favorable, we actively continue concomitant OK432-combined adoptive immunotherapy (OK-AIT), concentrated ascites reinfusion therapy, and endocrine chemotherapy.

Although the overall prognosis of P cases is poor, when they were classified into disease types by ‘with or without liver metastasis’ or ‘with or without ovarian metastasis’ at the onset time, the median survival time (MST) was 1.5 and 26 months in the groups with and without liver metastasis, consisting of 28 and 19 patients, respectively, and 29 and 1 month in the groups with and without ovarian metastasis, consisting of 15 and 32 patients, respectively, showing a marked difference between the groups.

Conclusion: Even if carcinomatous peritonitis and cancerous ascites are present, patients without liver metastasis or with ovarian metastasis should not be readily

diagnosed with terminal-stage disease, and active treatment should be considered.