The 28th Annual Meeting of
ASIA-PACIFIC ENDOCRINE CONFERENCE

The 28th

APEC
Bali

PROGRAM

Feb 10th-11th, 2017
The Westin Resort Nusa Dua, Bali
Bali, Indonesia

Ito Hospital
Tokyo, Japan

In Collaboration With Indonesia-Japan
Sanglah Hospital Denpasar, Udayana University
Bali, Indonesia
WELCOME MESSAGE
FROM
THE CONFERENCE CHAIRPERSON

Dear colleagues and friends,

It is a great honor to be able to hold the 28th Annual Meeting of the Asia-Pacific Endocrine Conference (APEC) in Indonesia Bali at the Westin Resort Nusa Dua, Bali this year.

The first APEC has been held in Singapore, in 1988. During the past years, we were able to hold this academic conference in many different countries, but this is the first time for us to hold APEC in Indonesia.

The aim of APEC is to gather the Japanese and the international endocrinologists, in order to share and debate about new concepts in diagnosis, clinical management or research findings regarding endocrine disease. Moreover, the contribution of the medical science development and the possibility for the Japanese physicians to build up their friendship with international endocrinologists, it is also a great opportunity for the young Japanese doctors to improve their skills and to present their research in English at an international conference.

For the 28th APEC, we are privileged to be in partnership with the Sanglah Hospital and Udayana University of Denpasar in Indonesia Bali. I also would like to express my sincere gratitude to the co-Chairman Dr. Nyoman Putu Riasa and the honorary - Chairman Dr. Ketut Suastika. I hope that it will be a good opportunity to heighten the friendship between the Indonesian and the Japanese physicians.

On top of these academic merits, I can assure you that 28th conference will be a memorable experience in Bali, ‘the famed Island of the Gods’, known for its various landscapes of hills, mountains, rugged coastlines and sandy beaches.

We look forward to seeing you in Bali.

The 28th APEC Chairman
Wataru Kitagawa M.D.
Department of Medical Technology and Surgery
Ito Hospital
28th APEC MEETING ORGANIZING COMMITTEE MEMBERS

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Ito Hospital

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Secretariat Office: Medical office  
Ito Hospital  
4-3-6, Jingumae, Shibuya-ku,  
Tokyo, 150-8308, Japan  
TEL: +81-3-3402-7438  
FAX: +81-3-3402-7439  
E-mail: 28th-apec-jimukyoku@ito-hospital.jp

Local Secretariat Office: Department of Surgery  
Sanglah Hospital Denpasar  
Jalan Diponegoro, Denpasar, Bali, Indonesia  
TEL: +62- 361257397  
E-mail: riasanyomanp@yahoo.com
COMMITTEE OF THE ASIA-PACIFIC ENDOCRINE
CONFERENCE SOCIETY

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4-3-6, jingumae, Shibuya-ku,
Tokyo, 150-8308, Japan
TEL: +81-3-3402-7438
FAX: +81-3-3402-7439
THE ASIA-PACIFIC ENDOCRINE CONFERENCE (APEC) SOCIETY

OBJECTIVES:
To promote research related to endocrinology.
To provide an international venue for junior* researchers to present their findings in English.
To provide an international senior researchers to present their achievements and implications.
To provide a venue for researchers in endocrinology from Asia-Pacific countries to meet, share and develop collaborative endeavors.

*Person who have graduated from medical school in the last decade.

REGULATIONS:
There are no specific requirements needed for be qualify to a membership into the Society.
The Society’s Board shall consist of a Chair, Directors, Standing Directors and a General Secretary.
The Chair, Directors, Standing Directors and General Secretary shall be elected by the members of the Board.

OPERATION OF THE SOCIETY:
The conduct of the Society shall be determined at the Board meetings convened by the Chair.

APEC:
The conference shall be held in Asia-Pacific countries other than Japan during those which conflict with similar meetings in Japan.
GENERAL INFORMATION

The 28th APEC meeting is to be held with the hope that endocrinologists from the Asia-Pacific countries will present, discuss and exchange about their achievements. The primary aim will be to promote progress in the field of endocrinology, especially by young researchers who may be new to the international area. The participants will also have the possibility to develop collegial relationships through mutual interests in endocrine research.

1. DATE AND VENUE
   Date: February 10-11, 2017
   Venue: The Westin Resort Nusa Dua, Bali
           Kawasan Pariwisata Nusa Dua / BTDC Lot N-3, Nusa Dua 80363, Bali, Indonesia
           TEL: +62-0361-771906
           FAX: +62-0361-771908

2. OFFICIAL LANGUAGE
   The official language of the conference will be English.

3. SESSION SCHEDULE
   February 10th (Fri)
   8:00～11:00  Registration
   15:30～16:30  Committee Meeting
   (「Seasonal Tastes」 on the 1st floor of The Westin Resort Nusa Dua)
   17:30～  Welcome Party
           (「Oceana Restaurant & Bar in Jimbaran」
           Jl. Segara Madu, Pantai Kelan, Jimbaran Bay Indonesia
           TEL: 0361 4725150)
   ※ A bus will be available between The Westin Resort Nusa Dua Hotel and the Welcome Party location. The departure will be at 17:00.
   Please wait on the 1st Floor lobby at 16:50.

   February 11th (Sat)
   8:00～  Registration
   8:55～9:00  Opening Remarks
   9:00～16:23  Scientific Meeting
   16:25～  Closing Remarks
   18:00～  Farewell Party
   (Pool Side on the 1st floor of The Westin Resort Nusa Dua)
   ※ In case of rain the 「Seasonal Tastes」 will be indoor.
4. REGISTRATION
The registration desk will be placed at the 1st Floor Lobby (APEC desk) of The Westin Resort Nusa Dua from 8:00 to 11:00 am on the 10th (Friday). On the 11th (Saturday), the registration desk will start from 8:00 AM at the Bali International Convention Center (Next to The Westin Resort Nusa Dua), on the 2nd Floor (A Conference hall).

5. REGISTRATION FEE
The Organizing Committee confirmed that the registration fee for Japanese would be as follows:
   - Participants: 40,000 Yen
   - Resident and Accompanying Persons: 20,000 Yen
   - 12 years or younger: Free
   - Non-Japanese Participants: Rp.1,000,000
   - Non-Japanese Resident and Accompanying Persons: Rp.500,000
※Cards not accepted

6. INSTRUCTIONS FOR PRESENTORS
All scientific paper will be presented orally in English. All presentations should be computerized on a Windows format Power Point and saved on a CD-ROM or USB Flash Drive. Please use basic fonts (Arial, Century, Times New Roman, etc). You can bring your own computer with D-Sub port. All speakers are asked to submit their projection at the registration desk on February 10th (8:00~11:00 am). The time allocated for each speaker will be as follows:
   - Special Lecture Session: 20min. for presentation
   - Sponsored Session: 20min. for presentation
   - Free paper Session: 6min for presentation and 3min for question-answer.

7. DRESSCODE
   - Conference: Formal (no necktie)
   - Party: Casual

8. OFFICIAL TRAVEL AGENT
Kengo Suzuki (Tobu Top Tours Co., Ltd.)
4th Floor Seitousu Kaikan, 5-7 Sanban-cho, Chiyoda-ku
Tokyo 102-0075, Japan
TEL: +81-3-5212-7101
FAX: +81-3-5212-7094
TIME SCHEDULE

February 10th (Fri)
8:00～11:00  Registration  
   (At 1st Floor Lobby of The Westin Resort Nusa Dua)

17:30～  Welcome Party  
   (Oceana Restaurant & Bar)  
   Jl. Segara Madu, Pantai Kelan, Jimbaran Bay Indonesia  
※The departure will be at 17:00.  
   Please wait at the 1st Floor lobby for 16:50.

February 11th (Sat)
8:00～  REGISTRATION OPENING  
   (At the Bali International Convention Centre, on the 2nd Floor.)

8:55～9:00  OPENING REMARKS  Wataru Kitagawa, M.D.

9:00～9:27  THYROID I  Chairperson: Makoto Kammori, M.D.
1. Clinicopathological Features in Patients with Cribriform-Morular Variant of Papillary Thyroid Carcinoma  
   Junko Akaishi, M.D. (Ito Hospital)

2. Diagnostic Value of Galectin-3 Immunocytochemistry in Indeterminate Thyroid Nodule Fine Needle Aspiration Biopsy  
   I Wayan Sudarsa, M.D. (Sanglah General Hospital)

3. Diagnostic Value of Intraoperative Imprint Cytology in Indeterminate Thyroid Nodule Fine Needle Aspiration Biopsy  
   Ida Bagus Tjakra Wibawa Manuaba, M.D. (Sanglah General Hospital)

9:30～9:57  THYROID II  Chairperson: Ida Bagus Tjakra Manuaba, M.D.
4. Management of Thyroid Dysfunction in Thyroid Surgery  
   Made Ratna Saraswati, M.D. (Udayana University, Sanglah Hospital)

5. Unusual Case of Ectopic Parathyroid Adenoma  
   Marie Sanada, M.D. (Nippon Medical School Hospital)
6. VANS-3S Method as a Low-Cost Video-Assisted Thyroid Surgery
   Akihiro Katayama, M.D. (Sapporo Tokushukai Hospital)

10:00～10:27   ENDOCRINE, DM
   Chairperson: Takumi Abe, M.D.
   Chairperson: Naokatsu Saeki, M.D.

7. Managing Prolonged Diabetes Insipidus after Transphenoidal Pituitary
   Surgery in Bali
   Sri Maliawan, M.D. (Sanglah Hospital, Udayana University)

8. The Analysis of Serum Fatty Acid Fractions in the Patients with Type 2
   Diabetes - The Implication of ω-6 polyunsaturated Fatty Acids -
   Masanori Hasebe, M.D. (Saiseikai Yokohamashi Tobu Hospital)

9. Erectile Dysfunction after Transurethral Resection of the Prostate and Role of
   Testosterone, Fact or Myth?
   Gede Wirya Kusuma Duarsa, M.D. (Udayana University, Sanglah Hospital)

10:30～10:48   THYROID, ENDOCRINE
   Chairperson: Takamasa Ichijo, M.D.

10. Management of Pancreatic Tumor in Sanglah General Hospital Denpasar-Bali
    Ketut Sudartana, M.D. (Sanglah Hospital)

11. A Study of Change from Methimazole to Propylthioracil in the Management of
    Women with Graves' Disease Who Desire to Bear Children: Efficacy and Side
    Effects
    Hiroyuki Onose, M.D. (Kanaji Thyroid Hospital)

10:48～11:05   COFFEE BREAK

11:05～11:23   THYROID III
   Chairperson: Hiroyuki Onose, M.D.

12. Analysis of Seasonal Changes in F-T3, F-T4 and TSH Using Big Data from Ito
    Hospital
    Masako Matsumoto, M.D. (Ito Hospital)

13. Subclinical Hypothyroidism and the Cardio-Ankle Pulse Vascular Index
    (CAVI)
    Miho Suzuki, M.D. (Ito Hospital)
11:26～11:46 SPECIAL LECTURE I  Chairperson: Hideaki Ogata, M.D.
Obesity, Metabolic Syndrome, Type 2 Diabetes, and Cardiovascular Disease in Population of Bali
Ketut Suastika, M.D. (Udayana University)

11:46～13:15 LUNCH

13:15～13:35 SPECIAL LECTURE II  Chairperson: Hidemitsu Tsutsui, M.D.
Endocrine and Metabolic Changes in Severe Burn and its Simple Anabolic Strategies
Nyoman Putu Riasa, M.D. (Udayana University, Sanglah Hospital)

13:38～14:05 THYROID IV  Chairperson: Kiminori Sugino, M.D.
16. Possibility of Fistula Formation in Patients with Structurally Progressive Thyroid Carcinoma Treated by Lenvatinib
   Chie Masaki, M.D. (Ito hospital)

17. Lenvatinib for the Treatment of Radioiodine-Refractory Differentiated Thyroid Cancer: A Single-Institute Experience
   Hidemitsu Tsutsui, M.D. (Tokyo Medical University)

18. A Case of Mixed Medullary and Papillary Carcinoma of the Thyroid Treated with Tyrosine Kinase Inhibitors
   Akifumi Suzuki, M.D. (Ito hospital)

14:08～14:35 BREAST I  Chairperson: Fumi Saito, M.D.
19. The Evaluation of the Metastatic Axillary Lymph Nodes in Patients with Breast Cancer Using Computed Tomography
   Nao Imai, M.D. (Mie University Hospital)

20. The Techniques of Needle Biopsy for Breast Cancer from the Viewpoint of Oncoplastic Surgery
   Aya Noro, M.D. (Mie University Hospital)

   Nyoman Putu Riasa, M.D. (Udayana University, Sanglah Hospital)
14:38〜14:56 BREAST II  Chairperson: Tomoko Ogawa, M.D.
22. Breast Reconstruction Surgery at Our Hospital: Risk Factors for Complications After Immediate Reconstruction
   Fumi Saito, M.D. (Toho University School of Medicine)

23. Postoperative Prognostic Factor in Breast Cancer in Patients ≥80 Years: A Retrospective Single-Centre Analysis
   Hideaki Ogata, M.D. (Toho University School of Medicine)

14:59〜15:19 SPONSORED SESSION (Sponsored by Eisai Japan)
   Chairperson: Yasushi Noguchi, M.D.
   Role of Lenvatinib in the Current Treatment Strategy of Differentiated Thyroid Cancer
   Kiminori Sugino, M.D. (Ito Hospital)

15:19〜15:35 COFFEE BREAK

15:35〜16:02 THYROID V  Chairperson: I Wayan Sudarsa, M.D.
25. A Case Report of Left Non-Recurrent Inferior Laryngeal Nerve with RAA and TOF due to 22q11.2 Deletion Syndrome
   Kiyomi Y. Hames, M.D. (Ito Hospital)

26. A Case of MEN2B in 13-Year-Old Boy
   Ryuta Nagaoka, M.D. (Nippon Medical School)

27. Missed Initial Diagnosis of Follicular Thyroid Carcinoma: Metastatic Bony Recurrence 5 year After Thyroid Lobectomy
   Wilairat Prasert, M.D. (Thammasat University)

16:05〜16:23 THYROID VI  Chairperson: Akifumi Suzuki, M.D.
28. Radioactive Iodine (RAI) Therapy for Distantly Metastatic Differentiated Thyroid Cancer (DTC) in Juvenile Versus Adult Patients
   Makoto Kammori, M.D. (International University of Health and Welfare, Chemotherapy Research Institute, KAKEN Hospital)

29. Evaluation of the Correlation Between the Interval Between Thyroidectomy and Radioactive Iodine Therapy and Radioiodine Avidity in Metastatic Lesions of Papillary Thyroid Carcinoma
   Yasushi Noguchi, M.D. (Noguchi Thyroid Clinic and Hospital Foundation)
16:25～ CLOSING REMARKS Nyoman Putu Riasa, M.D.

18:00～ Farewell Party
(Pool Side on the 1st floor of The Westin Resort Nusa Dua)
Clinicopathological Features in Patients with Cribriform-Morular Variant of Papillary Thyroid Carcinoma

Junko Akaishi¹, Kiminori Sugino¹, Tetsuo Kondo², Mitsuji Nagahama¹, Wataru Kitagawa¹, Keiko Ohkuwa¹, Takashi Uruno¹, Kenichi Matsuzu¹, Akifumi Suzuki¹, Chisato Tomoda¹, Kiyomi Hames¹, Chie Masaki¹, Yuna Ogimi¹, Tadatoshi Osaku¹, Yoshiyuki Saito¹, Tomoaki Tanaka¹, Tomomasa Hayashi¹, Koichi Ito¹

¹Department of Surgery, Ito Hospital, Tokyo, Japan.
²Department of Human Pathology, Yamanashi University Hospital, Tokyo, Japan.

Background: Cribriform-morular variant of papillary thyroid carcinoma (CMV-PTC) is a rare tumor. CMV-PTC may occur in patients with familial adenomatous polyposis (FAP) or may be a sporadic tumor. The clinicopathological features of this entity are not fully understood. To clarify the clinicopathological features of CMV-PTC, medical records of CMV-PTC patients were investigated retrospectively.

Materials and Methods: Between 2006 and 2014, a total of 7,536 patients with PTC underwent initial surgery at Ito Hospital. Of these, 7 (0.09%) patients histologically diagnosed with CMV-PTC were retrospectively reviewed. The 7 patients were all females, with a mean age at the time of surgery of 32 years (range, 18-45 years). Two patients presented with neck swelling, and 5 patients were incidentally detected during screening ultrasonography. Five (71%) patients had associated FAP (4 patients had a family history of FAP, and 1 patient had colonic adenomatous polyposis), and the remaining 2 patients (29%) were thought be sporadic because they had no family history of FAP, but adenoma polyposis coli (APC) gene analysis was not performed.

Results: Tumors were located in the right lobe (n=4), the left lobe (n=1), and bilateral lobes (n=2). Multiple tumors were detected in 3 (43%) patients, with a single tumor in 4 (57%). The mean maximum tumor size was 22 mm (range, 10-22 mm). Preoperative diagnosis on fine-needle aspiration biopsy (FNAB) showed that 6 (86%) were PTC, and one patient had an adenomatous goiter. Four (57%) patients underwent lobectomy, and 3 (43%) patients underwent total thyroidectomy. Four (57%) patients underwent central neck dissection, and 2 (29%) patients underwent modified neck dissection. No metastatic lymph nodes and no extrathyroidal extension were identified. All patients showed no signs of recurrence over a mean follow-up of 4 years.

Conclusion: CMV-PTC occurred in young women, and the prognosis was good. CMV-PTC could precede colonic manifestations; therefore, early diagnosis and evaluation with colonoscopy are recommended.
DIAGNOSTIC VALUE OF GALECTIN-3 IMMUNOCYTOCHEMISTRY IN INDETERMINATE THYROID NODULE FINE NEEDLE ASPIRATION BIOPSY

I Wayan Sudarsa¹, Faison Ramawi¹, Arif Winata¹, Herman Saputra², Steven Christian¹, Ida Bagus Tjakra Wibawa Manuaba¹

¹ Department of General Surgery Surgical Oncology Division Sanglah General Hospital
² Department of Pathological Anatomy Sanglah General Hospital

Indeterminate diagnostic categories (Atypia of undetermined significance/follicular lesion of undetermined significance, Follicular neoplasm/suspicious for a follicular neoplasm, and Suspicious for malignancy) from The Bethesda System for Reporting Thyroid Cytopathology warrant further preoperative/intraoperative evaluation. Galectin-3 immunocytochemistry may be helpful in diagnosing preoperative thyroid carcinoma.

Objective: To determine preoperative Galectin-3 diagnostic accuracy in indeterminate thyroid nodule patients.

Materials and Methods: This was a prospective study of 45 patients with indeterminate thyroid nodule fine needle aspiration biopsy in Department of General Surgery Surgical Oncology Division and Department of Pathological Anatomy Sanglah General Hospital. Preoperative Galectin-3 immunocytochemistry was performed and the result was compared with the histopathological diagnosis.

Results: Galectin-3 immunocytochemistry sensitivity was 75.00%, specificity was 94.00%, positive predictive value was 94.00%, negative predictive value was 77.00%, and accuracy was 85.00%.

Conclusion: Preoperative Galectin-3 immunocytochemistry may be used in diagnosing thyroid carcinoma in indeterminate thyroid nodule patients. Further research on preoperative thyroid carcinoma diagnosis using biomolecular panel is needed.
DIAGNOSTIC VALUE OF INTRAOPERATIVE IMPRINT CYTOLOGY IN INDETERMINATE THYROID NODULE FINE NEEDLE ASPIRATION BIOPSY

Ida Bagus Tjakra Wibawa Manuaba¹, Gusti Ngurah Pustaka¹, Arif Winata¹, Herman Saputra², I Wayan Sudarsa¹

¹Department of General Surgery Surgical Oncology Division Sanglah General Hospital
²Department of Pathological Anatomy Sanglah General Hospital

Indeterminate diagnostic categories (Atypia of undetermined significance/follicular lesion of undetermined significance, Follicular neoplasm/suspicious for a follicular neoplasm, and Suspicious for malignancy) from The Bethesda System for Reporting Thyroid Cytopathology warrant further preoperative/intraoperative evaluation. Imprint cytology is a promising option in diagnosing thyroid carcinoma intraoperatively.

Objective: To determine intraoperative imprint cytology diagnostic accuracy in indeterminate thyroid nodule patients.

Materials and Methods: This was a prospective study of 46 patients with indeterminate thyroid nodule fine needle aspiration biopsy in Department of General Surgery Surgical Oncology Division and Department of Pathological Anatomy Sanglah General Hospital. Imprint cytology was performed intraoperative and the result was compared with the histopathological diagnosis.

Results: Imprint cytology sensitivity was 81.48%, specificity was 84.21%, positive predictive value was 88.00%, negative predictive value was 76.19%, and accuracy was 82.61%.

Conclusion: Imprint cytology is a simple and reliable option to determine the extent of thyroid surgery intraoperatively in indeterminate thyroid nodule patients.
MANAGEMENT OF THYROID DYSFUNCTION IN THYROID SURGERY

Made Ratna Saraswati

Endocrinology and Metabolism Division, Department of Internal Medicine
Faculty of Medicine Udayana University/Sanglah Hospital

Surgical treatment is an essential part of the treatment of many thyroid conditions, particularly recommended for those patients with nodules that are considered cancerous and patients with a bulky thyroid enlargement. Patients with Graves’ disease is less likely need an operation unless not respond to antithyroid drugs or in some cases, the eye disease may be aggravated by the administration of radioactive iodine.

Investigation prior to surgery in order to make a proper diagnosis usually consists of thyroid function tests, radioactive thyroid scans, thyroid ultrasound and fine needle aspiration biopsy (FNAB) of the thyroid gland. Thyroid function is evaluated by measuring the thyroid hormone level (free thyroxine or FT4, free triiodothyronine or FT3), and thyroid stimulating hormone level (TSH or TSHs). Based on these laboratory data, there are some possible finding of thyroid dysfunction including hypothyroidism or hyperthyroidism, and normal thyroid function (euthyroid).

In general, prior to the procedure the thyroid function should be as normal as possible to prevent adverse event during surgery and to prevent adverse outcome after surgery. In hypothyroidism where the laboratory findings are high level of TSH and low level of FT4, levothyroxin is the recommended hormone replacement therapy. In case of hyperthyroidism, the TSHs level very low, with high FT4 and/or FT3, the thyroid function should be normalized by prescribing anti thyroid drug, either prophylthiouracil (PTU) or methimazole. Urgent surgery may need to be covered by some other additional treatment to prevent the thyroid crisis during and after surgery. In certain cases such as subclinical hypothyroidism (high TSH level with normal FT4) or subclinical hyperthyroidism (low TSH with normal FT4 and FT3), clinical consideration should be taken whether patients need to be treated before operation.

After surgery, the thyroid function should be reevaluated. Following surgery, replacement treatment with thyroxine is mandatory for all patients whose entire thyroid gland was removed and for some patients with partial thyroidectomy. The calcium level and parathyroid hormone should also be evaluated in particular where most of the thyroid gland is removed. Collaborations between surgeons and endocrinologists will provide a better patients outcome.
Unusual Case of Ectopic Parathyroid Adenoma

Marie Sanada¹, Ryuta Nagaoka¹, Ritsuko Okamura¹, Tomoo Jikuzono¹, Takehito Igarashi¹, Iwao Sugitani¹, Ryuichi Wada², Akira Shimizu²

¹ Division of Endocrine Surgery, Department of Surgery, Nippon Medical School.
² Division of Diagnostic Pathology, Nippon Medical School Hospital

Primary hyperparathyroidism (PHPT) is a clinical condition related to an excessive and abnormally regulated secretion of parathyroid hormone (PTH) from the parathyroid glands which is responsible for an alteration of the calcium and phosphorus metabolism. Parathyroid adenoma is the most common cause of PHPT.

Case: The patient was a 46 year-old woman. She had endometrial carcinoma and underwent total hysterectomy and bilateral salpingo-oophorectomy. Two months later, blood test revealed the high level of corrected serum calcium (12.2 mg/dL) and intact PTH (648.4 pg/mL). She was diagnosed as having PHPT. Tc99m-MIBI scintigraphy could not localize a pathological parathyroid gland. It showed mild uptake in right lobe and left lower lobe of the thyroid. Exploratory surgery, including right hemithyroidectomy, resection of left lower lobe of the thyroid and left paratracheal dissection, was carried out. Post-operative blood test showed persistent PHPT. Next year, neck ultrasound detected a suspicious nodule posterior to right common carotid artery. Punctured fluid from the nodule showed high level of PTH. Although Tc99m-MIBI scintigraphy was negative study, we performed re-operation to remove the tumor.

Exploring dorsal area of right internal jugular vein and right common carotid artery, we found the firm, fibrous nodule adhering to the vagus nerve. We could resect the tumor preserving the nerve.

A day after surgery, the level of intact-PTH became low (8.3 pg/mL), and corrected blood calcium recovered within normal range (10.3 mg/dL). Microscopically, the nodule was well-circumscribed with thick fibrous capsule. The cells with clear cytoplasm showed sheet like arrangement. Few atypia of the nuclei and mitotic figures were seen. Thus, pathological diagnosis was parathyroid adenoma, not carcinoma.

Reportedly, the most common location of ectopic parathyroid was in the thymus (38 %) followed by at the retro/paraesophageal region (31 %). Among the remaining, 18 % were intrathyroidal, 6 % were in the mediastinum, 4 % were undescended, and 3 % were in the carotid sheaths. The patient represents a rare case of ectopic parathyroid adenoma in the sheath of carotid artery.
VANS-3S method as a low-cost video-assisted thyroid surgery

Akihiro Katayama$^{1,2}$, Kazuo Shimizu$^3$, Yasuaki Harabuchi$^2$

$^1$Department Otolaryngology, Sapporo Tokushukai hospital
$^2$Department Otolaryngology Head and neck surgery, Asahikawa medical University
$^3$Department of Endocrine surgery, Nippon Medical School

Since April 2016, Japanese public health care started to cover video-assisted thyroid surgery. However, it is still not so popular until now. One of the reasons must be high operation cost. Then we have been developing low-cost video-assisted thyroid surgery procedure called VANS-3S. We introduced Mist-less retractor we innovated, U-retractor/Iron-assistant and Nitrogen gas powered locking arm for endoscope, and that enable only single surgeon to complete video-assisted thyroidectomy successfully. Then we could cut personnel expense for three assistants. Moreover instead of expensive disposable energy device, we introduced reusable energy device: BicCamp110. BicCamp110 is a radiofrequency device originally designed for MIVAT method and we proved it is also suitable for VANS method because of their fine jaw, speedy sealing and cutting tissues and durability. Then we held down power device cost to a one-thirteenth. Here I present a video of hole procedure of VANS-3S method with BiClamp110 in detail. If our action contributes to the spread of video-assisted thyroid surgery to the world, it’s happy
MANAGING PROLONGED DIABETES INSIPIDUS AFTER TRANSPHENOIDAL PITUITARY SURGERY IN BALI

Sri Maliawan, Wisnu Wardhana

Dept. of Neurosurgery, faculty of Medicine, Sanglah Hospital, Udayana University Denpasar Bali, Indonesia

Introduction
The average Brain tumor surgery were 120 cases yearly, 25% (30) astrocytoma, 20% (24) meningioma, 25% (30) metastatic, 15% (18) medulloblastoma, 10% (12), 5% others including 3-4 pituitary tumor.
The overall percentage of patients with diabetes insipidus (DI) after transphenoidal surgery can be as many as 30%. Transient DI is the most common clinical presentation, whereas prolonged DI is rare and tend to be very disabling for the patients. There are two factors that can cause prolonged DI, such as the lesion itself that involves or destroys the pituitary stalk or manipulation to the posterior pituitary gland or pituitary stalk during surgery.

Method
Retrospective study, from 2000-2015 there were 59 transphenoidal surgery were evaluated, where most complication are transient DI, but only three become prolong DI. Vasopression agent, balancing fluid replacement, and serum electrolytes control is the main therapy of the DI treatment.

Result
All of three cases survived, 2 cases were free of vasopression agent after 9 months and one case with vasopression agent dependance until 5 years. Here we present three cases of successfully treated patients with postoperative prolonged DI in Bali.

Conclusion
Close observation and monitoring should be done in Hospital and out patient care for patient with DI, also availability of vasopression agent is a must when doing surgery for pituitary tumor.

Key ward: transphenoidal surgery, diabetes Incipidus, prolong
The Analysis of serum Fatty Acid Fractions in the Patients with Type 2 Diabetes — The Implication of ω-6 polyunsaturated Fatty Acids —

Masanori Hasebe, Takamasa Ichijo, Kaoru Yamashita, Yuka Kobayashi, Ayami Ueda, Tomoko Yagi, Ayano Doi, Mariko Higa

The Department of Diabetology and Endocrinology, Saiseikai Yokohamashi Tobu Hospital

Background and Aim:
It is well known that the relationship saturated fatty acids and obesity with metabolic syndrome. The polyunsaturated fatty acids (PUFAs) are essential fatty acids and unsynthesizeable in our body, thus the composition of PUFAs completely depend on our food intake. It is also well known that ω-3 has an anti-atherosclerotic effect though ω-6 facilitates inflammatory effects, and the ratio of ω-3 to ω-6 is important to prevent metabolic syndrome and cardiovascular events. Although, the relationship between obesity and ω-6 PUFA is still not clearly understood. In this study, we analyzed the relationship between obesity and serum fatty acids in patients with type 2 diabetes.

Subjects and method:
Forty-three patients with type 2 diabetes, including 27 male and 16 female, the age with 61.7 ± 16.0 YO, without history of EPA administration, alcohol drinking, and detection of both heptatis type B and C virus. We defined waist circumstance ≧ 85 cm and ≧ 90 cm as obesity for male and female, respectively. Leptin, adiponectin, hs-CRP, and urinary 8-OHdG were measured for all subjects and performed dietary survey by brief self-administered diet history questionnaire (BDHQ). We also measured the body fat composition by bio-electrical impedance analysis (InBody®) in some patients.

Results:
Our data showed all of alanine transaminase (ALT), gamma-glutamyltransferase (γGTP), triglyceride (TG) and leptin were significantly higher, and adiponectin was conversely significantly lower in the obese group, as well known. In the fatty acids analysis, arachidonic acid (AA) and dihomo-gamma-linolenic acid (DGLA), belonged to ω-6 PUFA, were significantly higher in obese group than non-obese group (AA: 213.5 ± 13.3 vs 149.2 ±17.3, EPA to AA was significantly lower and palmitic acid, a saturated fatty acid, was significantly higher in obese group (770.8 ± 37.0 vs 633.3 ± 35.0), as expected. DGLA showed positive correlation with BMI, waist circumstance, TG and ALT, and body fat had positive correlation with DGLA, AA and palmitic acid. BDHQ showed that the obese group had more fat contained foods.

Discussion:
Our results revealed the patients with obese type 2 diabetes showed higher concentration of ω-6 PUFA, notably, DGLA showed positive correlation with obesity, probably visceral obesity according to Japanese metabolic syndrome criteria. Since DGLA is synthesized by delta 6-desaturase and finally converted to AA, we have to be careful enough to take excessive ω-6 PUFA, even the essential fatty acids.
Erectile Dysfunction After Transurethral Resection of the Prostate and Role of Testosterone, Fact or Myth?

Gede Wirya Kusuma Duarsa1, M Sukamarta2, Astri2, AAA Wiradana2, PMW Tirtayasa1, W Yudiana1, KB Santos1, AAG Oka1, DM Soebadi3

1.Department of Urology, Udayana University, Sanglah Hospital, Denpasar, Bali, Indonesia
2.Department of Surgery, Udayana University, Sanglah Hospital, Denpasar, Bali, Indonesia
3.Department of Urology, Airlangga University, Dr. Soetomo Hospital, Surabaya, Indonesia

Objective:
Benign prostatic hyperplasia (BPH) and erectile dysfunction (ED) are common problems that can affect the quality of life (QoL) in middle-aged and older men. These conditions share common risk factors including testosterone level. We investigate the effect of transurethral resection of the prostate (TURP) on erectile function in patients with benign prostate hyperplasia and study the effect of testosterone in post prostatectomy erectile dysfunction.

Material and Method:
A quasi-experimental, pre-post non-control group design was conducted on 45 BPH patients, aged between 50-80 years, who underwent TURP between June and October 2016. Erectile function was assessed using International Index of Erectile Function (IIEF) and Erectile Hardness Score (EHS) before and one month after TURP. History taking, physical examination, laboratory, and radiology examinations were performed before TURP.

Results:
The incidence of Erectile dysfunction using Erectile Hardness Score prior TURP and one month after TURP are 30 pts. (66.67%). TURP had no significant effect on erectile function both in IIEF score (p = 0.3764; 95%CI -0.651-0.251) and EHS (p=0.1031; 95%CI -0.196-0.019). Aging was significantly correlated to ED (p=0.0026; r=-0.4377). Hypertension and obesity were significantly correlated with ED (OR 1.75 and 2.8, respectively). Meanwhile, blood sugar, uric acid serum, education level, kidney function tests, cholesterol and serum triglyceride were not significantly correlated with ED. ED patients has a lower mean testosterone level compare to normal erection function patients (421.38ng/dl vs. 445.04 ng/DL). Serum testosterone level increased nonsignificantly with increasing IIEF score (p=0.0723) and EHS (p=0.1316).

Conclusions:
Aging, hypertension and obesity were risk factors for ED in our population. There was no change in erectile function observed one month after TURP. Testosterone was increased related to erectile function despite not reaching statistical significance.

Keyword: Erectile Dysfunction, Transurethral Resection of the Prostate, Testosterone, Benign Prostate Hyperplasia
Surgery remains the primary therapy for pancreatic tumor. Moreover, it has an important role in the management of patient with locally advanced and unresectable tumor. Retrospective review of 31 patients who underwent surgery for pancreatic tumor from January 2015 until June 2016 were done. Seventeen patients had a biliary by-pass procedure due to non-resectable pancreatic tumor. Nine had an external biliary drainage as palliative treatment. Five underwent Whipple’s procedure for tumor of the head of pancreas. In our hospital, decision for resectability of pancreatic tumor was based on involvement of superior mesenteric artery. Following a Whipple procedure, one patient had an anastomoses leakage so that an immediate primary repair was done. The other four did not have any complication. All five of them were alive when this report was submitted.
A STUDY OF CHANGE FROM METHIMAZOLE TO PROPYLTHERIORACIL IN THE MANAGEMENT OF WOMEN WITH GRAVES' DISEASE WHO DESIRE TO BEAR CHILDREN: EFFICACY AND SIDE EFFECTS

Hiroyuki Onose, Shinya Ishii, Mayumi Goto, Tomoo Jikuzono, Keiichi Yoshikawa, Tatsuya Fukumori, Kazuo Shimizu, Tetsu Yamada and Emiko Yamada

Kanaji thyroid hospital

Background: A comparative study of efficacy and effects of thiamazole (MMI) and propylthiouracil (PTU) concerning pregnancy planning women with Graves’ disease has been extremely rare. Meanwhile, MMI administration in the treatment of Graves’ disease is generally avoided in the first trimester of the pregnancy due to the risk of thiamazole embryopathy. In the Kanaji thyroid hospital, MMI was sometimes changed to PTU before pregnancy. In this paper, efficacy and effects of controlling hyperthyroidism of these antithyroid drugs were studied and discussed.

Method: From Feb in 2002 to Jan in 2012, 169 women with Graves’ disease who desire to bear children were changed from MMI to PTU at the Kanaji thyroid hospital. Among those cases, patients who were changed to PTU after having had become euthyroid by taking MMI more than 3 months were studied. The patients who had pregnancy within one year after PTU administration were excluded. Eventually, seventy eight patients were enrolled in this study.

Results: Average age was 33±5 years old at the time of PTU administration. Fifty three patients were euthyroid over a year under PTU administration (Stable group: S group). In 19 patients, dose of PTU was increased to maintain normal thyroid function (Exacerbation group: E group). Exacerbation after dose reduction of PTU (2 patients) was excluded from E group. Side effects of PTU developed in four patients (liver dysfunction: 3 cases, urticaria: 1 case). PTU was changed to MMI again within a year for those patients. In S group, 8.12 mg/day of MMI was changed to 126 mg/day of PTU (PTU/MMI=15.5). In E group 12.7 mg/day of MMI was changed to 155 mg/day of PTU (PTU/MMI=12.2). Exacerbation factor was low dose ratio of PTU to MMI. TRAb titer and dose of MMI before switching in E group were higher than those in S group, but not significant. Overall side effects were liver dysfunction (11 cases), rash (4 cases), positive MPO-ANCA titer (3 cases), leg edema (1 case), neutropenia (1 case).

Conclusions: In the family planning period, dose of MMI can be changed up to 15 times higher dose of PTU as an optimal dose. However, the occurrence of liver dysfunction, elevation of MPO-ANCA titer, rash, neutropenia and exacerbation of Graves’ disease should be taken into consideration.
Analysis of seasonal changes in F-T3, F-T4 and TSH using big data from Ito Hospital

Masako Matsumoto, Jaeduk Y. Noh, Natsuko Watanabe, Ai Yoshihara, Koji Mukasa, Yo Kunii, Miho Suzuki, Hitomi Ohye, Nami Suzuki, Kenji Iwaku, Ruriko Suzuki, Naomi Hattori, Kei Endo, Kiminori Sugino, Koichi Ito

Ito Hospital, Tokyo, Japan

We analyzed seasonal changes in F-T3, F-T4 and TSH.

<Subjects and Methods>

(1) Daily median data were obtained for F-T3 from 1,626,269 subjects, for FT4 from 1,669,381 subjects, and for TSH from 1,637,721 subjects who visited our hospital between January 2010 and December 2015. F-T3, F-T4 and TSH were measured at our hospital using EClusys kits.

(2) We divided data into four groups: winter (December to February), spring (March to May), summer (June to August) and autumn (September to November). Seasonal differences in F-T3, F-T4 and TSH were then analyzed.

(3) Correlations between monthly median F-T3, F-T4 and TSH and monthly mean temperature, hours of daylight and amount of the precipitation were examined.

<Results>

(1) F-T3, F-T4 and TSH showed significant differences between seasons. However, seasonal fluctuations in F-T3 and F-T4 were minimal. Seasonal median F-T3 and F-T4 for all seasons were 2.9 pg/ml and 1.25-1.26 ng/dl, respectively. Median TSH concentrations in winter, spring, summer and autumn were 1.46 μIU/ml, 1.38 μIU/ml, 1.31 μIU/ml and 1.41 μIU/ml.

(2) Median TSH was significantly higher in winter than in summer.

(3) Median monthly TSH and mean monthly temperature (r = -0.6845) and median monthly F-T3 and mean monthly temperature (r = -0.3797) showed significant inverse correlations.

<Conclusion>

We confirmed the existence of seasonal changes using data from huge quantities of thyroid function tests.

<Discussion>

In winter, the rise in the secretion of F-T3 may be useful for maintaining body temperature. Increased catecholamine production stimulated by cold temperature promotes TRH secretion, and increased TSH may then cause elevated F-T3 levels.
Subclinical Hypothyroidism and the Cardio-Ankle Pulse Vascular Index (CAVI)

Miho Suzuki, Jaeduk Y. Noh, Koji Mukasa, Natsuko Watanabe, Yo Kunii, Masako Matsumoto, Ai Yoshihara, Hidemi Ohye, Nami Suzuki, Kenji Iwaku, Ruriko Suzuki, Naomi Hattori, Kei Endo, Kiminori Sugino, Koichi Ito

【Background】The reference range of TSH tends to increase with age, and hypothyroidism is known to cause arteriosclerosis. The cardio-ankle vascular index (CAVI) is an independent measure of blood pressure. We examined the relationship between thyroid function and arteriosclerosis using the CAVI.

【Patients and Methods】We enrolled 363 patients not on thyroid treatment who presented to the outpatient clinic between April 2015 and March 2016 and gave their informed consent. Patients were excluded if they had hyperthyroidism and treated hypertension or hypercholesterolemia. The patients were divided into three groups by TSH values: 0.2-2.5 (group A, 202 patients), 2.51-4.5 (group B, 62 patients) and 4.5-10 (group C, 32 patients). Multiple regression analysis was performed using the CAVI as the target variable and age, sex, BMI, blood pressure, LDL-C, HDL-C, HbA1c, C-reactive protein, FT3, and TSH as explanatory variables.

【Results】The median CAVI in the three group was 6.8 (range: 3.7-9.6), 7.1 (4.7-10.5) and 7.0 (5.6-8.5) respectively. On analysis of variance, there was no significant difference among the three groups (p=0.1240). On multiple regression analysis, age, BMI, and ankle blood pressure were the significant contributors to the CAVI. Multiple regression analysis was performed with the group stratified into age groups by 5-year intervals. It was found that CAVI increased almost linearly with age. However, thyroid function was not correlated with the CAVI in the stratified groups.

【Conclusion】Subclinical hypothyroidism and high normal TSH levels do not affect the CAVI.
OBESITY, METABOLIC SYNDROME, TYPE 2 DIABETES, AND CARDIOVASCULAR DISEASE IN POPULATION OF BALI

Ketut Suastika, Pande Dwipayana, Made Ratna Saraswati, Wira Gotera, AAG Budhiarta

Division of Endocrinology and Metabolism, Department of Internal Medicine, Udayana University, Denpasar, Bali, Indonesia

The prevalence of obesity, metabolic syndrome (MS), and diabetes mellitus (DM) are increasing globally. Metabolic syndrome is a cluster of risk factors that predisposes an individual to atherosclerosis which may eventually lead to increased risk of cardiovascular morbidity and mortality. There is now a general agreement regarding the criteria (characteristic features) often used for the diagnosis of the syndrome, i.e. glucose intolerance, obesity (body-mass index), raised blood pressure and dyslipidemia with elevated triglycerides, low levels of high density lipoprotein [HDL] cholesterol; but different definitions use different cut-off points for the parameters used for diagnosis and also different concepts of mandatory inclusion criteria.

A cross-sectional study enrolling 1840 subjects, aged 13-100 years with male-to-female ratio of 972/868, were studied at seven villages across the island of Bali. The prevalence of central obesity was 35% (male, 27.5%; female, 43.4%); metabolic syndrome (MS), 18.2% (male, 16.6%; female, 20.0%); impaired fasting glycemia (IFG), 13.1% (male, 14.3%; female, 12.4%); and diabetes mellitus (DM), 5.9% (male, 6.1%; female, 5.7%). The subjects who had 1, 2, 3, 4, and 5 components of MS were 34.6%, 23.8%, 13.0%, 4.3%, and 0.9% respectively. The population in two tourist areas (Legian and Ubud) had the highest prevalence of central obesity (61.2% and 70.1%), but they did not necessarily have a higher prevalence of DM and MS. Central obesity and high blood pressure were the most frequent MS component were found and followed by low HDL-C, high triglyceride, and high fasting glucose levels (35%, 32%, 30.7%, 23.7%, and 19.3%, respectively). Age is frequently associated with some metabolic disorders. Central obesity was increased by age till 5th decade and decreased there after. The prevalence of IFG and DM were two fold in the elderly (aged ≥ 60 years) compared to in the younger groups (21.4 vs. 11.7; 11.7 vs. 4.8; respectively). Blood pressure and fasting blood sugar levels were higher in the elderly than in the younger group (133/81 vs. 117/76 mmHg; 102.7 vs. 93.0 mg/dl, respectively; p<0.001). There were no any difference of triglyceride and HDL-cholesterol levels between both groups. Waist circumference were lower among the elderly than the younger groups (75.8 vs. 80.9 cm; p<0.001). The elderly, although have lower waist circumference, revealed higher prevalence of metabolic syndrome significantly compared to the younger group (22.9% vs. 17.3%; p=0.026; prevalence risk 1.423 [CI = 1.043-1.944]). One study in Pedawa village population was found that hypomagnesia was a risk factor for MS and T2DM. Subanalysis in population of Ceningan island revealed that underweight was important risk factor for coronary heart diseases, beside older age.
Most of burn injury in the world is happen in low and middle-income countries. In Indonesia the number of burns patients reported from 14 teaching hospitals during 2012 -2014 were 3518 patients. Limited resources available for burn treatment in most teaching hospitals in Indonesia give a challenge for burn care provider to fulfill standard treatment according ISBI guidelines for burn care. Despite significant progress has been achieved in most major burn resuscitation, further referral for intensive burn treatment is needed for survival. Early surgical treatment, endocrine and metabolic dysfunction are still remains a significant cause of morbidity and mortality in major burn patients.

Severe or major burn injury is characterized by hypermetabolism and catabolism proportional to burn surface area. Severe burns have the most intense and prolonged catabolic response of all ‘surgical‘ ICU patients. This metabolic profile includes changes in glucose homeostasis and muscle protein metabolism that persist from the first few days following injury to as long as three years later. The hyper metabolic response is associated with high REE and release of substrate from protein and fat stores. Increase Rate of protein catabolism lead to loss of LBM and protein wasting. Muscles proteolysis continues until 6 months, and resulted in increasing delay in rehabilitation, other complication and death. Insulin resistance is a critical part of the etiology of hyperglycemia after burn and its etiology is poorly understood. Hyperglycemia and loss of muscle mass that is attendant with catabolism have a central role in determining the prognosis of burn patients.

Healing of burn wounds is an anabolic process, which consumes massive amounts of amino acids, supplied by breakdown of skeletal muscle. Simple and effective anabolic strategies use in our burn unit included early burn wound excision and skin grafting, sepsis elimination, near total body wrapped dressing to maintain environment temperature (30 – 32° C), continuous high carbohydrate and protein diet (enteral route) and early institution of vigorous exercise program. Further anabolic strategies aimed on reducing erosion of LBM at minimum level, administration of anabolic agents Metformin, and anti-catabolic drugs (propanolol).

Those simple but effective treatment strategy could reduce morbidity and mortality of major burn in our burn unit.
Possibility of fistula formation in patients with structurally progressive thyroid carcinoma treated by lenvatinib

Chie Masaki, Kiminori Sugino, Yoshiyuki Saito, Tomoaki Tanaka, Yuna Ogimi, Tetsuyo Maeda, Tomomasa Hayashi, Tadatoshi Osaku, Junko Akaishi, Kiyomi Hames, Chisato Tomoda, Akifumi Suzuki, Kenichi Matsuzu, Takashi Uruno, Keiko Ohkuwa, Wataru Kitagawa, Mitsuji Nagahama, Koichi Ito

Surgery, Ito hospital, Japan

BACKGROUND: It has been revealed by phase 3 trials that lenvatinib shrinks tumor rapidly in advanced thyroid carcinoma. In structurally progressive cases, therapeutic effect can lead to fistula formation (FF) between tumor and nearby- organs, e.g. skin, air tract, esophagus, and common carotid artery (CCA), which is considered as treatment-emergent adverse event (TEAE). Skin and air tract fistulae easily induce local infection, and the infection can be the trigger for the rupture of nearby CCA which leads to a fatal state. In this study, we investigated frequency of these TEAEs.

METHOD: Forty-one patients who had been treated with lenvatinib between May 2015 and October 2016 were eligible for this study. The subjects include 14 males and 27 females with median age of 66 (34-83) and median observation period of 266 days (18-533). Histological subtypes were 18 of PTC, 9 of FTC, 11 of ATC, and 3 of MTC. Computed tomography (CT) was performed before treatment to investigate the tumor structural progression. Anatomical relationship between the tumor and skin, air tract, and CCA were graded. We classified the contact area of tumor with CCA as follows: Grade 1 (touch within one-third part of circumference), Grade 2 (range one to two-third part), and Grade 3 (extent more than two-third part). Frequency of FF and CCA rupture was investigated.

RESULT: Skin FF occurred in 3 (75%) of 4 skin invasion cases. Respiratory tract FF occurred in 2 (17%) of 12 patients who had irregular contact to respiratory tract. Thirty patients (73%) had lesions in contact with CCA. Grade 1, 2, and 3 were observed in 9 (22%), 7 (17%), and 14 (34%) of those cases, respectively. And CCA rupture had never occurred in this group. Histological subtypes of 5 FF patients were 1 PTC and 4 ATC. And none died related to these TEAEs. Treatment discontinuation lead to rapid tumor regrowth.

CONCLUSION: The incidence of FF was 75% in skin invasion cases, 17% in air tract invasion cases, and the CCA rupture has not occurred.

For structurally progressive lesions, careful watching is required through the whole administration phase.
LENVATINIB FOR THE TREATMENT OF RADIOIODINE-REFRACTORY DIFFERENTIATED THYROID CANCER: A SINGLE-INSTITUTE EXPERIENCE.

Hidemitsu Tsutsui, Ryouzi Ohara, Atsumi Tamura, Masae Hoshi, Yukiko Yano, Norihiko Ikeda

Department of Chest and Thyroid Surgery, Tokyo Medical University, Tokyo, Japan

Introduction: Treatment options for recurrent or metastatic differentiated thyroid cancer (DTC) refractory to radioactive iodine (RAI) are limited. Multitargeted kinase inhibitors have recently shown promising results in phase 3 studies. This retrospective study aimed to show our clinical experience on the effects of lenvatinib in the setting of daily clinical practice.

Patients and Methods: Retrospective study evaluating the efficacy and safety of lenvatinib in a cohort of patients consecutively treated with lenvatinib at Tokyo Medical University Hospital. Seventeen patients with advanced RAI-refractory DTC were enrolled (May 2015 - October 2016). All patients started with 24 mg of lenvatinib once daily, tapering the dose in case of adverse effects. Radiological response (RECIST v1.1) and toxicity (CTCAE v4.0) were measured during follow-up. TSH-suppressed thyroglobulin (Tg) levels were also measured excluding Tg antibody positive patients.

Results: Out of 17 patients (7 men, 10 women) with a median age of 70 yrs (range, 49-82 yr), 14 (82%) had papillary, 1 had follicular (6%) and 2 had poorly differentiated thyroid carcinoma. All patients had evidence of progressive disease within one year before initiating therapy. Best response in target lesions was partial response (PR) in 11 (73.3%) patients, stable disease (SD) in 3 (20%), and progressive disease (PD) in 1 (6.7%). Clinical benefit (PR+SD) was 93.3%. Tumor size reduction was most pronounced at 2 months (median, -29.5%), thereafter, the rate of change was slower but continuous. Treatment-related adverse effects which lead to discontinuations of lenvatinib treatment were proteinuria (grade >3: 47%), fatigue/asthenia (35%), decreased appetite (12%), hand-foot syndrome (12%) and diarrhea (12%).

Conclusions: Lenvatinib appears to be effective in patients with widely metastatic, progressive DTC with RAI refractory, with most patients achieving PR. The change in tumor size conferred by lenvatinib showed rapid decline during the first 2 months, followed by slow, continuous shrinkage.
A case of mixed medullary and papillary carcinoma of the thyroid treated with tyrosine kinase inhibitors

Akifumi Suzuki¹, Tetsuo Kondo², Tomomasa Hayashi¹, Yoshiyuki Saito¹, Tomoaki Tanaka¹, Tadatoshi Osaku¹, Tetsuyo Maeda¹, Yuna Ogimi¹, Chie Masaki¹, Kiyomi Heims¹, Junko Akaishi¹, Chisato Tomoda¹, Kenichi Matsuzu¹, Takashi Uruno¹, Keiko Ohkuwa¹, Wataru Kitagawa¹, Mitsuji Nagahama¹, Kiminori Sugino¹, and Koichi Ito¹

¹Department of Surgery, Ito Hospital, Tokyo, Japan
²Department of Pathology, University of Yamanashi, Yamanashi, Japan

[Introduction]
Mixed medullary and papillary carcinoma (MMPC) of the thyroid, a variant of medullary carcinoma, is very rare, accounting for less than 0.15% of thyroid tumors. MMPC is synonymous with mixed medullary and follicular cell carcinoma. Mixed medullary and follicular cell carcinoma is characterized by possessing features of both medullary carcinoma with immunoreactive calcitonin and follicular (or papillary) carcinomas with immunoreactive thyroglobulin. We report a very rare case of MMPC treated with tyrosine kinase inhibitors (TKIs), which exhibited rapid growth of only the medullary carcinoma component.

[Case] 43-year-old male. 

[Past History] Dilated cardiomyopathy suspected from the age of 37 years, renal calculus from the age of 41 years.

[Family History] No thyroid disease.

[Course] The patient consulted our hospital in June 2013 for a thyroid tumor and lymphadenopathy that were identified at a private clinic. Fine needle aspiration cytology (FNAC) led to a diagnosis of papillary thyroid carcinoma (PTC). In October 2013, we performed total thyroidectomy + right modified neck dissection + right recurrent laryngeal nerve shaving. The pathological diagnosis was papillary carcinoma. By February 2015, the lymphadenopathy had extended rapidly on the right side of the neck and poorly differentiated transformation was diagnosed by FNAC. We performed radical neck dissection in April 2015, at which time pathological examination surprisingly revealed metastases of medullary thyroid carcinoma (MTC). After reviewing the pathological specimen from the first operation, it became clear that there were medullary carcinoma components in both the primary papillary thyroid carcinoma and lymph node metastases. We finally changed the diagnosis from PTC to MMPC.

RET proto-oncogene germline mutation was not detected. PET-CT in June 2015 showed multiple bone, liver and local lymph node metastases. In addition, calcitonin doubling time was very short, at 2.3 months. We commenced treatment with lenvatinib, the only tyrosine kinase inhibitor (TKI) available in Japan at that time for the treatment of medullary thyroid carcinoma. Despite the commencement of lenvatinib therapy in June 2015, his general condition worsened. Therefore, we switched from lenvatinib to vandetanib in January 2016, which resulted in the immediate cessation of disease progression and serum tumor marker levels decreasing in about 5 months. However, tumor marker levels began to increase again in June 2016. He was urgently hospitalized for control of intense cancerous pain in September 2016, and switched from vandetanib to another TKI, sorafenib. Unfortunately, he developed aspiration pneumonia on the third day of sorafenib therapy, followed by disseminated intravascular coagulation (DIC) and death.

*In Japan, three types of TKIs, lenvatinib, vandetanib and sorafenib, are approved for use in select patients with recurrent or persistent MTC that is not resectable. These drugs became available in May 2015, January 2016 and February 2016, respectively.
The evaluation of the metastatic axillary lymph nodes in patients with breast cancer using computed tomography

Nao Imai, Mayuko Nagano, Mao Kimoto, Mai Shibusawa, Aya Noro, Yuki Nohara, Minoru Ito, Keiko Inakami, Noriko Hanamura, Tomoko Ogawa

Department of Breast Surgery, Mie University Hospital

Purpose
Given the results of the ACOSOG Z0011 trial, we have to attempt flexible management of axilla based on the number of metastatic axillary lymph nodes. We investigated preoperative computed tomography (CT) images in order to evaluate the number of metastatic axillary lymph nodes in breast cancer patients preoperatively.

Materials and Methods
A total of 444 patients underwent CT preoperatively preceding axillary operation (Sentinel lymph node biopsy or Axillary lymph node dissection) for breast surgery. We investigated the number of lymph nodes with [1] long-axis diameter >10 mm and [2] short-axis diameter >5 mm and determined the positive rate, respectively. We then established criteria for predicting metastatic axillary lymph nodes based on the CT findings.

Results
1) Long-axis diameter >10 mm
At least 1 such lymph node was detected in 299 cases (67.3%), and 57 cases (19.0%) had metastatic axillary lymph nodes. In 15 cases (3.4%), ≥3 such lymph nodes were detected, 11 cases (77.3%) had metastatic axillary lymph nodes.

2) Short-axis diameter >5 mm
At least 1 such lymph node was detected in 286 cases (64.4%), and 63 cases (22.0%) had metastatic axillary lymph nodes. In 25 cases (5.6%), ≥3 such lymph nodes were detected, 18 cases (72.0%) had metastatic axillary lymph nodes.

At least 1 lymph node with long-axis diameter >10 mm and short-axis diameter >5 mm was detected in 228 cases (51.3%), and 51 cases (22.4%) had metastatic axillary lymph nodes. At least 2 such lymph nodes were detected in 41 cases (9.2%), and 22 cases (53.7%) had metastatic axillary lymph nodes. Furthermore, ≥3 such lymph nodes were detected in 9 cases (2.0%), and the positive rate was 100%. However, even in cases where ≥3 lymph nodes with long-axis diameter >10 mm and short-axis diameter >5 mm were detected, a substantial number had just 1 or 2 metastatic axillary lymph nodes.

Discussion
In this present study, the presence of ≥1 lymph node with long-axis diameter >10 mm and/or short-axis diameter >5 mm suggested an approximately 20% probability of the existence of metastatic axillary lymph nodes. In contrast, the presence of ≥3 lymph nodes with long-axis diameter >10 mm and short-axis diameter >5 mm all but guaranteed the existence of metastatic axillary lymph nodes. Given these findings, detecting ≥3 such lymph nodes was useful for suggesting the existence of metastatic axillary lymph nodes. However, there was no relationship between the detection of ≥3 axillary lymph nodes and the number of metastatic axillary lymph nodes. In the future, we hope to establish new, useful criteria for more accurately predicting the number of metastatic axillary lymph nodes.
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The techniques of needle biopsy for breast cancer from the viewpoint of oncoplastic surgery

Aya Noro, Mayuko Nagano, Mao Kimoto, Nao Imai, Mai Shibusawa, Yuki Nohara, Minori Ito, Masako Yamashita, Keiko Inakami, Noriko Hanamura, Tomoko Ogawa

Department of Breast Surgery, Mie University Hospital

Various techniques to achieve the better cosmetic outcome have been reported in breast conserving surgery. The radical resection for the best oncologic results is also important.

A variety of needle devices, e.g. core needle biopsy and vacuum-assisted biopsy, are used for the diagnosis of breast cancer. The possibility of tumor cells being seeded in the soft tissue and skin located in the needle tract after biopsy is a matter of concern. To avoid the loss of the cosmetic and oncological outcomes due to local recurrence, we recommend excising the biopsy tract during the operation for the primary tumor. The ease of excision rather than the ease of biopsy should be given priority when selecting the needle insertion site. Therefore, we should consider the operation technique and the design of skin incision before biopsy.

For example, if it’s necessary to resect the skin on the tumor, the skin resection area is set to radiate from nipple areolar complex (NAC) to the tumor. Thus, a deviation of the NAC is prevented. We should insert the biopsy needle from a site that is included in the skin resection area. Additionally, oncoplastic techniques e.g. lateral mammoplasty and medial mammoplasty, can be used to correct the position of the NAC and thereby achieve a better cosmetic outcome.

If it’s unnecessary to resect the skin on the tumor, we can use round block technique or approach from the inframammary fold (IMF). In these cases, we should insert the biopsy needle from the peri-areolar skin incision or IMF. We can then excise the needle tract and achieve good cosmetic results.

I’ll show you some cases of breast conserving surgery that we devised the design of skin incision to resect the needle tract.
THE GROWTH OF DICED CARTILAGE AND THE ROLE OF FIBRIN GLUE SCAFFOLD AND PLATELET RICH PLASMA IN SUBCUTANEOUS IMPLANTATION AND TISSUE ENGINEERING USING VASCULARIZED PERFORATED TUBE

Nyoman Putu Riasa¹, Putu Astawa², Nyoman Mantik-Astawa³, Nyoman Agus-Bagiada⁴

¹Dept of Plastic Reconstructive and Aesthetic Surgery, Faculty of Medicine, Udayana University-Sanglah Hospital, Denpasar Bali-Indonesia
²Dept of Orthopaedic and Traumatology, Faculty of Medicine, Udayana University-Sanglah Hospital, Bali-Indonesia
³Dept of Pathology, Faculty of Veterinary, Udayana University-Sanglah Hospital, Bali Indonesia
⁴Dept of Biochemistry Dept, Faculty of Medicine, Udayana University-Sanglah Hospital, Bali-Indonesia

The use of autologus cartilage graft is limited by donor availability and tissue engineering had showing many promising results. In surgery, cartilage could be used as diced cartilage (DC) graft. Fibrin glue scaffold (FGS) and platelet rich plasma (PRP) had been added in grafting process but its role need to be elucidated. Capillaries in-growth, well viability and regeneration capacity of subcutaneous DC implantation, lead its use for vascularized tissue engineering to create larger construct.

This study aimed to reveals DC growth and the role of FGS_PRP in subcutaneous implantation and in vascularized perforated tube (VPT). In each of eight rabbits, two dorsal subcutaneous pockets and two VPT on superficial epigastric vessels were use as implanted sites. Subcutaneous DC implantation only was use as control.

Eight weeks after implantation all shows glossy cartilage. VPT groups show higher tissue weight (p < 0.05) and vascularized tissue flap could be created. DC with new chondrocytes island formations were noted, and connective tissues containing blood vessels fill the space in between. ANOVA test show no difference for viable DC and positive GFAP staining in all groups (p > 0.05), but chondrocytes viability were higher compare to the standard (p < 0.05). Formation of new chondrocytes islands was higher in subcutaneous DC + PRP_FGS group and in VPT DC only group but with lower vascularity compare to standard (p < 0.05).

It can be concluded that PRP_FGS has positive effect on subcutaneous DC implantation and to use DC only in creating vascularized cartilage flap.
Breast reconstruction surgery at our hospital: risk factors for complications after immediate reconstruction

Fumi Saito, Miho Yoshida, Natsuko Kurihara, Yorichika Kubota, Hideaki Ogata, Hironori Kaneko

Department of Surgery, Division of Breast and Endocrine Surgery, Toho University School of medicine

Introduction: Obesity, smoking history, and long operative time are considered to be risk factors for postoperative wound infection in the field of general surgery. Breast reconstruction using tissue expanders (TEs) is now covered under the national health insurance scheme and breast surgeons therefore have more opportunities to participate in breast reconstructions that involve the usage of implants. However, postoperative infections can be severe enough to require the removal of the TE. At our hospital, we had initially been injecting a large initial volume of saline into the TE during surgery, but decreased this volume because wound infections continued to occur. The decrease in volume was followed by a reduction in the number of infection cases. Given this background, we retrospectively investigated patients with TE placement who underwent removal of the TE due to complications such as postoperative infection, and explored risk factors leading to TE removal.

Subjects: We investigated 91 cases in 88 patients who underwent breast reconstruction at our hospital between February 2011 and March 2016. Group A comprised cases that underwent removal of a TE due to complications such as infections found during postoperative follow-up. Group B consisted of cases that did not undergo TE removal. The following five parameters were compared between groups: body mass index (BMI); history of smoking within 1 year of surgery; size of the TE placed; operative time; and percent expansion of TE (initial volume of saline injected into the TE ÷ TE size).

Results: There were 12 cases in Group A and 79 cases in Group B. Percent expansion of TE was the only factor that differed significantly between groups with uni- and multivariate analyses.

Discussion: Although smoking, obesity, and long operative time are considered as typical factors contributing to postoperative infection, the present study did not observe significant differences in these factors, suggesting that the sample size may have been insufficient. However, under specialized surgical conditions, namely breast reconstruction, tension applied to the wound during surgery (using initial volume of TE expansion (%) as a proxy for tension) may be associated with the development of post-reconstruction infection.
Postoperative prognostic factor in breast cancer in patients ≥80 years: A retrospective single-centre analysis

Hideaki Ogata, Fumi Saito, Miho Yoshida, Natsuko Kurihara, Yorichika Kubota, Hironori Kaneko

Department of Surgery, Division of Breast and Endocrine Surgery, Toho University School of medicine

Background

Optimal treatment approach for older women with breast cancer is often challenged by the lack of clinical evidence. The aim of this retrospective study is to describe the postoperative prognostic value for overall survival among breast cancer patients age 80 or older.

Material and methods:

We conducted a retrospective study of breast cancer patients aged 80 years and older who were treated surgically at the Omori Hospital of the Toho University Medical Center in Japan during the period 2005 – 2014. Patient and tumor characteristics, general health status, comorbidity, treatment, and cause of death were documented. Cox regression analysis was used to identify variables associated with overall survival time. Case records were followed for vital status until patient death, or until December 2015, which was the cut-off date for this study.

Results

During observation period, 139 operations for breast cancer were performed in 134 women. The median age of the patients was 83 (80-93). The median follow-up period of this study was 40.6 (5.4-147.6) months. At the time of final follow-up, 31 (23.1%) patients died; the rates of death from breast cancer was seen in 11 (8.2%) and other causes in 20 (14.9%).

By univariate analysis, caregiving, nodal status, T4 and comorbidity status were strongly associated with overall survival. On multivariate analysis, only caregiving remained significant except for nodal status, T4 and comorbidity.

Conclusion

Functional decline is one of the most important prognostic factors even in the surgically treated breast cancer patients age 80 or older.
Role of Lenvatinib in the Current Treatment Strategy of Differentiated Thyroid Cancer

Kiminori Sugino

Ito Hospital, Tokyo Japan

Patients with differentiated thyroid cancer (DTC) have excellent long-term survival, but up to one-third of them may experience local recurrence following initial surgery. Until recently, patients with recurrent DTC have been treated by surgery and radioactive iodine (RAI) therapy for long time. New insights in thyroid cancer biology propelled the development of targeted therapies for RAI therapy refractory DTC as salvage treatment. Lenvatinib, one of molecular target agents have become available as a new line of therapy for thyroid cancer. Lenvatinib targets vascular endothelial growth factor receptors 1–3 (VEGFR1–3), fibroblast growth factor receptors 1–4 (FGFR1–4), RET, c-kit, and platelet-derived growth factor receptor A (PDGFR-A). Its antitumor activity may be due to antiangiogenic properties and direct antitumor effects. In a phase III trial in RAI therapy refractory DTC, median PFS (progression free survival) in lenvatinib-treated patients was 18.3 months, with a 65% overall RR (response rate), versus 3.6 months in placebo-treated patients, with a 2% RR. Adverse events occurring in >50% of patients included hypertension, diarrhea, fatigue/asthenia, and decreased appetite.

In this lecture, recent topics of treatment strategy for DTC and our experiences of patients with DTC treated by lenvatinib are reviewed. Between May 2015 and August 2016, 28 patients with DTC were treated with lenvatinib in our hospital and excluding 2 patients who were transferred to other hospital during the treatment, 26 patients were reviewed. All patients had progressive, RAI-refractory disease. There were 7 males and 19 females with median age of 66 years. Histological classification was 18 papillary carcinomas and 8 follicular carcinomas. Starting dose of lenvatinib was 24mg/day in all patients. Median TTF (time to treatment failure) was 11.3 months and median DI (drug intensity) was 13.1 mg. To this date, 6 patients were died of the disease, and complete remission, partial response (PR), stable disease (SD), and progressive disease (PD) were observed in 0, 7 (26.9%), 11 (42.3%), and 8 (23.1%) patients, respectively. Twelve patients started the treatment after the appearance of any symptom (group A) and 14 patients started before the appearance of the symptom (group B). In group A patients, PR, SD, and PD was observed in 2 (16.7%), 3 (25.0%) and 7 (58.3%), respectively. On the other hand, in group B patients, PR, SD, and PD was observed in 5 (35.7%), 8 (57.1%) and 1 (7.1%), respectively. PD patients were significantly fewer in group B patients (chi square test, $p<0.01$).

Lenvatinib treatment is recommended to start before any symptom is appeared.
A Case Report of Left Non-Recurrent Inferior Laryngeal Nerve with RAA and TOF due to 22q11.2 Deletion Syndrome

Kiyomi Y. Hames, Wataru Kitagawa, Chisato Tomoda, Tetsuyo Maeda, Yuna Ogimi, Chie Masaki, Akifumi Suzuki, Junko Akaishi, Kenichi Matsuzu, Takashi Uruno, Keiko Ohkuwa, Mitsuji Nagahama, Kiminori Sugino, Koichi Ito

Department of Surgery, Ito Hospital, Tokyo Japan

Anatomical vascular abnormalities have been reported to develop non-recurrent inferior laryngeal nerve. 22q11.2 deletion syndrome is known to have a variety of possible signs and symptoms including cardiovascular anomalies. Chromosomal abnormalities have been found in 15.3 – 30 % of the patients with right aortic arch (RAA) and 22q11.2 deletion is the most common. Tetralogy of Fallot (TOF) is commonly associated with right aortic arch (RAA). Although the association of right non-recurrent laryngeal nerve and aberrant right subclavian artery has been observed, left non-recurrent laryngeal nerve is extremely rare and only two cases have been published to date.

We report a case of non-recurrent inferior laryngeal nerve with RAA and a history of TOF and peripheral pulmonary stenosis due to 22q11.2 deletion syndrome. Such a nerve anomaly can increase the risk of iatrogenic damage to the nerve during thyroid and parathyroid surgery. Pre-operative diagnosis of non-recurrent inferior laryngeal nerve as well as intra-operative nerve monitoring plays an important role in preventing the damage.
A case of MEN2B in 13-year-old boy

Ryuta Nagaoka, Marie Sanada, Tomoo Jikuzono, Ritsuko Okamura, Takehito Igarashi, Haruki Akasui, Iwao Sugitani, Kazuo Shimizu

Department of Endocrine Surgery, Nippon Medical School

【Introduction】
Multiple endocrine neoplasia type 2B (MEN2B) is a rare syndrome due to mainly RET918 germline mutation. The incidence is estimated about one in a million in Japan. It involves medullary carcinoma of the thyroid and pheochromocytoma. Additionally patients are often accompanied with unique physical characteristics including mucosal neuromas, distinctive facial appearance and Marfanoid habitus.

【Case report】
We experienced a case of MEN2B in 13-year-old boy. He was referred to our department due to the palpable neck mass. He had no family history but had attended a pediatric hospital from infancy for chronic constipation and flatulence. He presented with mucosal neuromas in the lip and tongue; however, he had not received a definitive diagnosis of MEN. Blood test revealed elevated serum CEA and calcitonin. Computed tomography scan showed an about 4 cm heterogeneous mass in left lobe of the thyroid, several lymph nodes swelling in the bilateral neck and distant metastases to the lung. It also revealed megacolon in abdomen but adrenal tumor was not detected. He was diagnosed to have MEN2B with medullary carcinoma of the thyroid and mucosal neuromas lacking of any sing of pheochromocytoma. He received total thyroidectomy with bilateral neck dissection (sT4aN1bM1). The pathological findings revealed to be medullary carcinoma of the thyroid. He has not undergone genetic test for RET mutation yet. After a half year from operation, he is alive and there is no sign of progression of the lung metastases and development of pheochromocytoma.

【Summary】
This patient has been characterized by mucosal neuromas in his lip, tongue and abdomen from infancy. But he has not been diagnosed as MEN2B until MTC has progressed. If the diagnosis was made earlier, it might be possible to get prompt therapy including prophylactic total thyroidectomy. We are taking molecularly targeted therapy using Vandetanib into consideration now, although, evidence for the safety and effectiveness for patients with MTC under 20 years is lacking.
Missed Initial Diagnosis of Follicular Thyroid Carcinoma: Metastatic Bony Recurrence 5 year After Thyroid Lobectomy

Wilairat Prasert

Department of Surgery, Faculty of Medicine, Thammasat University, Thailand.

Background: Follicular thyroid carcinoma (FTC) is the second most common form of differentiated thyroid carcinoma (DTC). Rarely, FTC will present with aggressive and widely metastatic disease. Because of hematogenous spreading, FTC has a higher risk of distant metastases as compared to papillary thyroid carcinoma (PTC), thus it has a worse prognosis than PTC. DTC patients with bone metastases always had a grim 25% 10-year survival. So, accurate diagnosis of FTC are very important for definitive treatment and metastasis prevention. We recently encountered a case of missed initial diagnosis of FTC presented with multiple bone metastases at 5-year after thyroid lobectomy which was initially diagnosed as benign goiter.

Case: A 53-year-old woman developed proximal muscle weakness of lower limbs and loss of sensation below T4 level for 2 weeks. She also had right hip pain and neck pain with right arm radicular pain for 1 year. Hip x-ray showed osteolytic lesions both hips and multiple bone metastases were detected by bone scan. The pathology of right iliac bone biopsy was adenocarcinoma. Then the patient was extensively worked up for primary cancer including CT scan of the chest with whole abdomen, endometrial biopsy, gastrointestinal endoscopic examination, and thyroid ultrasonography. All investigations were negative for any primary cancer, including thyroid ultrasonography showed normal appearing of the remaining left lobe, no any lesion in right thyroid bed and no any significant cervical lymphadenopathy. After repeated pathologic review and additional immunohistochemistry was done. The tumor was positive to TTF-1 and Thyroglobulin (Tg) staining, suggesting that the primary cancer is thyroid carcinoma. Completion thyroidectomy was done and the patient was sent to get radioactive iodine therapy (RAI) for bony metastases treatment.

Discussion: Missing diagnosis of FTC is the nightmare for pathologist and clinician, because of the undertreatment for FTC would increase the risk of distant metastases. Patients with DTC and bone metastases have a worse prognosis with 50% mortality rate at 3 years.
Radioactive iodine (RAI) therapy for distantly metastatic differentiated thyroid cancer (DTC) in juvenile versus adult patients

Makoto Kammori

Department of Breast and Thyroid Surgery,
International University of Health and Welfare,
Chemotherapy Research Institute, KAKEN Hospital

In general, juvenile differentiated thyroid carcinoma (DTC) demonstrate indolent characteristics and favorable prognosis are observed in comparison with many other carcinomas. However, recurrence is frequent, necessitating additional treatment, including radioactive iodine (RAI) therapy. In this report, the probability of recurrence, prognostic factors, treatment, and outcomes in both juvenile- and adult-onset DTC were analyzed and compared. At our institution, a total of 1552 DTC patients underwent thyroidectomy and/or lymph node dissection. The patients included 23 in their teens, 118 in their twenties, and 1412 in their thirties or older. The risk factors for distant metastases for DTC were male gender, follicular carcinoma, size of the PTC primary tumor, cervical lymph node metastases from PTC, and the presence of more than two distant metastatic foci. Patients with the highest risk underwent RAI ablation in line with institutional guidelines. Although the overall outcome in our juvenile patients was excellent, during follow-up, 4 (17.4%) of the 23 patients developed recurrent disease: 91.3% achieved complete remission, 4.35% partial remission, and 4.35% stable disease, with no disease-related deaths. Among the 118 patients in their twenties to thirties, 1 (0.009%) experienced progressive disease and disease-related death. A younger age at diagnosis and less radical primary surgery without subsequent RAI ablation are factors strongly predictive of distant metastases in patients with juvenile-onset DTC. To reduce the rate of relapse and improve surveillance for recurrent disease, total thyroidectomy followed by RAI appears to be the most beneficial initial treatment for patients with high- and intermediate-risk juvenile DTC.
Evaluation of the correlation between the interval between thyroidectomy and radioactive iodine therapy and radioiodine avidity in metastatic lesions of papillary thyroid carcinoma

Yasushi Noguchi

Noguchi Thyroid Clinic and Hospital Foundation
Dept. of Radiology and Nuclear Medicine

It is well known that the radioactive iodine avidity of metastatic lesions impacts the outcome of radioactive iodine therapy for metastatic thyroid cancer. Recently, it was reported that the interval between thyroidectomy and radioactive iodine therapy will also impact the outcome, and radioactive iodine therapy (RIT) was recommended before 6 month. But in this report there was no significant difference between the avidity rate of the metastatic lesions of poor outcome group and the fair outcome group. The aim of this study is to evaluate the correlation between the interval and radioactive iodine avidity, and verify the 6 month recommendation.

From January 2007 to December 2012, we performed 99 cases of RIT for metastatic papillary thyroid carcinoma. 17 male and 82 female with average age of 49.9 (15-82) at pathological diagnosis. The average interval was 96.93 month (1-522). In the 99 cases 5 were under 20 of age at pathological diagnosis. The analysis was performed by evaluating the significance of interval time between the radioiodine –avid and avid and non-avid groups by the complete group, groups within 6, 12, 24, 36, 48 and 60 month. We also performed the analysis with two groups, one using the entire age group, the other a group excluding the cases under 20 of age.

In the entire age group, as a whole there was no significant difference between interval time of radioiodine –avid and avid and non-avid groups (p=0.57). There was significant difference between interval within 6 month (p=0.04). Groups within 12 and 24 month did not have any significance (p=0.14, p=0.44), but groups within 36, 48, 60 month had significance (p=0.04, p=0.005, p=0.001). The avidity rate was 35.6% as a whole and 41.4%, 38.9%, 41.0%, 37.2%, 34.8%, 32.7% in each group within 6, 12, 24, 36, 48 and 60 month. In the group which excluded cases under 20 of age, significant difference was seen as a whole (p=0.05). Groups within 6, 12, 24, 36 did not have any significance (p=0.08, p=0.23 p=0.61, p=0.06), but groups within 48 and 60 month had significance (p=0.01, p=0.002). The avidity rate was 37.0% as a whole and 37.5%, 38.9%,37.8%, 37.2%, 34.1%, 31.8% in each group within 6, 12, 24, 36, 48 and 60 month.

From this data, the interval will correlate with radioactive iodine avidity only m after 24 to 36 month, and also the 6 month recommendation could not been verified. But with the small group as this, the conclusion is not quiet reliable, and a review with a larger group should be needed.