cancer is a rare event. When this occurs, patients have a very poor prognosis. Case Study A clinical case of a 33-year-old woman, born in Piura and coming from Lima, with no major history, diagnosed with a 4-month-old cervical tumor is presented. An ultrasound scan and a further biopsy were performed before an eventual diagnosis of papillary thyroid carcinoma. Operation was performed, and a classical papillary carcinoma of 0.90 inches was detected, along with macro-metastasis in a parathyroid ganglion. Post-surgical thyroglobulin was 1071 ng/ml (n< 50 ng/ml). The tomography in her lung showed three nodules in the middle lobe. A further dose of 150 millicuries of radioactive iodine (I-131) was given, with whole-body scanning, post positive in both lung fields and right lank pain. The tomography in the abdomen revealed a hepatic pedicle injury, compatible with teratoma. A liver resection surgery was scheduled, and metastatic papillary carcinoma was identified. A V600 mutation in BRAF gene was present in thyroid gland and not detectable in the liver. Conclusions This case shows an example of thyroid cancer with uncommon metastasis in the liver, which occurs in 0.5% of all thyroid metastases. It is even rarer that positive iodine was found. Liver metastasis represents a poor prognosis, however it has been reported that resective surgery offers patients a better chance of survival. Multiple factors influence its pathogenesis, including BRAF mutations. In this case, mutation was detected in thyroid gland, but not in liver metastasis, which could represent diverse BRAF mutations.

Cardiovascular Endocrinology
ENDOCRINE HYPERTENSION AND ALDOSTERONE EXCESS

Aldosterone-Potassium Ratio Predicts Primary Aldosteronism Subtype

Troy Puar, MRCP[1], Wann Jia Loh, MBBS[1], Dawn Shao Ting Lim, MBBS,MRCP[2], Meifen Zhang, MBBS, MRCP[1], Roger S. Foo, MBBS, MD, FRCP[3], Lynette Lee, MBBS, MRCP[4], Joan J C Khoo, MRCP,MBBS[5], Donovan Tay, MBBS, MRCP[6], Tanja Dekkers, MD[7], Marieke Stientje Velema, MD[8], Jaap Deinum, MD PhD[9], Peng Chin Kek, MBBS,MRCP[10].

[1]Changi General Hospital, Singapore, Singapore, [2]Singapore General Hospital, Singapore, Singapore, [3]National University Health System, Singapore, Singapore, [4]Singapore General Hospital, Singhealth, Singapore, Singapore, [5]Changi General Hosp, Singapore, Singapore, [6]Sengkang General Hospital, Singapore, Singapore, [7]Radboud University Medical Centre, Nijmegen, Netherlands, [8]VU Medical Center, Overasselt, Netherlands, [9]Radboud Univ Nijmegen, Nijmegen, Netherlands, [10]Singapore General Hosp, Singapore, Singapore.

SAT-547

Objective Prediction models have been developed to predict either unilateral or bilateral primary aldosteronism, and these have not been validated externally. We aimed to develop a simplified score to predict both subtypes and validate this externally.

Methods Our development cohort was taken from 165 patients who underwent adrenal vein sampling (AVS) in two Asian tertiary centres. Unilateral disease was determined using both AVS and post-operative outcome. Multivariable analysis was used to construct prediction models. We validated our tool in a European cohort of 97 patients enrolled in a clinical trial. Previously published prediction models were also tested in our cohorts.

Results Backward stepwise logistic regression analysis yielded a final tool using baseline-aldosterone-to-lowest-potassium ratio (APR, ng/dL/mmol/L), with an area under receiver operating characteristic curve of 0.80 (95% CI: 0.70 - 0.89). In the Asian development cohort, probability of bilateral disease was 90.0% (with APR <5) and probability of unilateral disease was 91.4% (with APR >15). Similar results were seen in the European validation cohort. Combining both cohorts, probability of bilateral disease was 76.7% (with APR <5), and probability for unilateral was 91.7% (with APR >15). Other models had similar predictive ability but required more variables, and were less sensitive for identifying bilateral PA.

Conclusion The novel aldosterone-potassium ratio (APR) is a convenient score to guide clinicians and patients of various ethnicities on the probability of PA subtype. Using APR to identify patients more likely to benefit from AVS may be a cost-effective strategy to manage this common condition.

Tumor Biology
ENDOCRINE NEOPLASIA CASE REPORTS I

Ectopic Cushing Syndrome Due to a Metastatic Neuroendocrine Tumor to the Breast

Jian Zhang, MD, Laurence Katznelson, MD.
Stanford Univ School of Medicine, Palo Alto, CA, USA.

SUN-927

Introduction:
We present a rare case of ectopic Cushing syndrome (CS) due to a neuroendocrine tumor (NET) metastatic to the breast.
Case:
A 38-year-old female was referred for ACTH-dependent CS. She had rapid development of cushingoid features and hypertension three months prior to presentation. A 24-hour urinary free cortisol (UFC) was elevated to 2548 µg (0-50 µg/24hr), and ACTH was 228 pg/mL (10-60 pg/mL). A pituitary MRI was normal, and inferior petrosal sinus sampling was not consistent with a central ACTH source. A DOTA-TATE scan showed mediastinal lymphadenopathy and a 0.8cm area of uptake in the right breast. The patient was placed on ketoconazole and UFC normalized. Following biopsy, she underwent breast lumpectomy at an outside hospital, and pathology showed triple negative invasive carcinoma of the breast. Chemotherapy was initiated. However, her CS rapidly worsened: repeat UFC was 4867 µg, and ACTH was 369 pg/mL. Re-review of her pathology slides at our facility showed that the tumor stained negative for breast markers and positive for markers of NET and ACTH. Ki67 staining was approximately 30%. Chemotherapy for breast cancer was immediately stopped. A follow-up PET-CT continued to show uptake in the mediastinal lymph nodes. FNA of these lymph nodes revealed metastatic NET. In order to maximize control of her CS prior to chemotherapy, she underwent bilateral adrenalectomy (BLA). Afterwards, the patient received 10 cycles of chemotherapy with modified FOLFOX-7 for her NET. Thus far, the tumor burden appears stable, and she