microcarcinoma was noted, which was encapsulated with focal extracapsular follicular structures showing papillary nuclear features with no perineural or lymphovascular invasion. The tumor cells were immunoreactive for TTF-1 and PAX8.
Development of papillary thyroid cancer within the thyroglossal duct cyst is a rare event, reportedly occurring in 1% of thyroglossal duct cysts. There are no well-established management guidelines.
Current management strategies consist of monitoring with serial neck ultrasound versus total thyroidectomy with consideration of postsurgical I-131 treatment, based on pathology results. Our patient opted for undergoing total thyroidectomy.

## Thyroid

### THYROID CANCER CASE REPORTS

#### *Paraneoplastic Eosinophilia (PNE): A Rare Finding in a Patient With Metastatic Medullary Thyroid Carcinoma*

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**Introduction:** Medullary thyroid cancer (MTC) is a rare tumor of neuroendocrine origin that co-secretes various peptides leading to diarrhea and vasodilation. Ectopic Cushing syndrome due to production of adrenocorticotropic or corticotrophin-releasing hormone is a well-recognized but uncommon paraneoplastic manifestation of advanced MTC. We report an extremely rare presentation of eosinophilia in a patient with MTC that correlated with disease progression. **Case:** A 58-year-old woman with sporadic metastatic MTC harboring somatic *RET* M918T mutation developed metastatic disease to the liver, lung and bones 2 years after surgery for locally advanced disease. Calcitonin (Ctn) was 123 pg/ml and CEA was 2575 ng/ml. At that time, leukocytosis [WBC 30.8 K/ul (4-11k/ul)] and eosinophilia [eosinophil count 16.01 k/ul (0.04-0.40 k/ul)] were noted. She was asymptomatic. Extensive evaluation of hypereosinophilia ruled out hematological or infectious causes. The patient initiated vandetanib with a partial response (PR) with decrease in lung and liver metastases and a significant improvement of the paraneoplastic eosinophilia [eosinophil count 2.39 k/ul] after 10 weeks of treatment. After a year on treatment, there was progressive disease (PD) with increasing hilar and abdominal lymphadenopathy associated with increased eosinophilia of 4.34 K/ul. Vandetanib was discontinued. She was enrolled on a clinical trial with a highly potent and selective RET inhibitor. The patient achieved PR to study drug by the 2$^{nd}$ month on treatment and durable response for 30 months. The eosinophil count normalized [0.32 k/ul] 4 weeks after starting the new treatment. She developed PD in liver metastases associated with recurrent leukocytosis (WBC 58.6 K/ul) and eosinophilia of 28.13 K/ul. Ctn was 1646 pg/ml. CEA was 8722 ng/ml. Her bone marrow biopsy showed marked eosinophilia, focal MTC metastatic infiltrate, no increased blasts, and was negative for the BCR-ABL1 translocation and the FIP1L1-PDGFRA fusion. She was switched to a different RET Inhibitor but passed away 1 month after starting the new protocol. **Discussion:** Paraneoplastic eosinophilia should be considered after excluding other causes (e.g. infections, allergy, collagen, vascular or malignant hematopoietic diseases). Thyroid tumors producing colony-stimulating factors, associated with neutrophilia and/or eosinophilia have been described almost exclusively in patients with anaplastic thyroid cancer. This patient had a poorly differentiated MTC as evidenced by the disproportionally high CEA relative to Ctn. The course of the eosinophilia paralleled the clinical behavior of her disease. To our knowledge, this is only the 2$^{nd}$ report of eosinophil trends corresponding with MTC disease course, consistent with a paraneoplastic process. **Conclusion:** PNE is very rare in MTC and its presence suggests a poor prognosis.

## Thyroid

### THYROID CANCER CASE REPORTS

#### *Percutaneous Polidocanol Injection as an Alternative Treatment in Differentiated Thyroid Cancer Oligometastasis*

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**Introduction:** Differentiated thyroid cancer (DTC) presents central lymph node metastasis in 20-50% and lateral in 12-86% of patients, the treatment of choice is surgical reintervention but it carries a higher risk of complications secondary to fibrosis formation in the surgical bed. Alternative nonsurgical therapies such as percutaneous ethanol injection (PEI), radiofrequency or laser ablation have been described. **Objective:** To report a case of oligometastasis in CDT which underwent percutaneous polidocanol injection (PPI). **Clinical Case:** A 35-year-old female who underwent a total thyroidectomy in 06-2019 for papillary thyroid cancer (AJCC: stage I/ ATA: intermediate risk), and ablative dose of 150 mCi $I^{131}$, under treatment with levothyroxine 150 mcg/d. Hospitalized 02-2020 for progressive dysphonia of 2 months of evolution, with studies of TSH 0.04 mIU/ml, TgAb 13 IU/ml, Tg 0.5 ng/ml and neck USG: right lymph node level III of 0.97 cm in short axis, suspected of malignancy. Tg washout 4743.72 ng/ml (positive), 1cc of 1% polidocanol is administered, guided by USG. 7 days later with 0.90 cm in short axis, a second dose of 1% polidocanol was administered and a new Tg washout was taken, 2.4 ng/ml (indeterminate). She was reevaluated in the first and fourth months of the procedure, with 0.10 cm in the short axis and complete disappearance of the lesion, respectively. Control studies at the fourth month of TgAb 13 IU/ml, Tg 0.4 ng/ml. **Discussion:** PEI is described for thyroid cysts and adenomas and for cervical lymph node metastases, this is a minimally invasive procedure in the treatment of lesions smaller than 10 mm but requires multiple sessions and it can cause pain due to extravasation, skin necrosis and damage to the recurrent laryngeal nerve. It requires a follow-up time of up to 65 months, producing a reduction in serum Tg less than 2.4 ng/ml, a decrease in