Interesting case conference

3/18/13
Clinical Data:

• 85 y.o. female developed bilateral neck masses November 2010, originally though to be ptotic submandibular glands, but continued to grow

• FNA performed in November 2011 revealed bilateral low grade neoplasms

• Elevated calcitonin level of 19.9

• Ultrasound guided core needle biopsy was performed in March 2012

• She states that other than these neck masses that have been slow growing, she has noticed more fullness in her voice over the past 6 months
Calcitonin
Additional immunostaining results:

**POS:**
CK7
TTF-1 (weak and very focal)

**NEG:**
CK5/6
p63
Thyroglobulin
Mammaglobin
FINAL DIAGNOSIS

Left neck mass, FNA and core biopsy: Neuroendocrine carcinoma. See COMMENT.

COMMENT:
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...The strong expression of calcitonin suggests a differential diagnosis of medullary thyroid carcinoma versus laryngeal neuroendocrine carcinoma.
In-house supraglottic biopsy performed a week later confirmed presence of neuroendocrine carcinoma.
Laryngeal Neuroendocrine Tumors

- Most common group of non-squamous tumors in larynx
- 4 main neuroendocrine tumors
  - paraganglioma
  - typical carcinoid (well diff neuroendocrine tumor)
  - moderately diff carcinoma (atypical carcinoid)
  - poorly diff carcinoma (small cell carcinoma)
• Typical carcinoid (aka well differentiated neuroendocrine tumor) => rare, carries the best prognosis. Treated by conservative surgery without elective neck dissection. Resembles carcinoids elsewhere
• Moderately differentiated neuroendocrine carcinoma (atypical carcinoid) => most common neuroendocrine tumor of larynx, vast majority occur within supraglottis. Common in older men who smoke. In contrast to typical carcinoid, should see mitoses, cellular pleomorphism, and/or necrosis.

• Cells positive for chromogranin, synaptophysin, keratin, calcitonin and CEA

• Unlike well differentiated laryngeal tumor, is an aggressive and potentially widely metastasizing malignancy
• Poorly differentiated (small cell) neuroendocrine carcinoma is similar in appearance and behavior to small cell lung carcinoma