

## **An Update on Novel Therapies for Advanced Thyroid Cancer: When to Start and What to Use**

Case Discussions - Presenter: Mimi I. Hu, MD

Learning Objectives:

- Understand when to consider novel therapies for advanced thyroid cancer
- Appreciate how to select and initiate therapy
- Recognize the importance of considering patient-specific factors in treatment recommendations

### **Case #1 – MTC Presenting with a Bone Metastasis**

This case highlighted a not uncommon situation when a patient presents with back pain and is found to have metastatic medullary thyroid cancer involving the L3 spine and liver metastases. He received surgery and radiation therapy to the spinal lesion followed by total thyroidectomy with central lymph node dissection.

Q1. What would be your recommendation after the L3 laminectomy and excision and total thyroidectomy?

Q2. When do you recommend active surveillance and how do you counsel patients on this recommendation?

The patient was monitored with active surveillance after the total thyroidectomy. Three years later, his liver metastases are stable without any progression in the neck or spine. Calcitonin and CEA doubling times are 10.9 years and 2.5 years, respectively. Calcitonin and CEA doubling times are useful as prognostic indicators of both survival and recurrence free survival.

### **Case #2 – Progressive PTC**

This case described a man who had a Stage II papillary thyroid cancer diagnosed 10 years ago, with recurrent disease in the neck and mediastinum 6 years later. He underwent surgery followed by radiation to the surgical fields at an outside institution. Thyroglobulin remained detectable. After 9 months of observation, he had marked progression in the mediastinum and pulmonary metastases.

Recommendation was to move forward with systemic chemotherapy.

Q1. What baseline considerations would you have prior to deciding on which drug to initiate?

Q2. What would have been your treatment recommendation in this patient?

### **Case #3 – Progressive MTC**

This case described a man with progressive MTC involving hepatic, bone and cervical lesions. Systemic therapy and antiresorptive therapy were recommended. The patient has a history of ventricular fibrillation and cardiac arrest and a history of irradiation to the T7 and upper mediastinum.

Q1. How do you decide between vandetanib or cabozantinib in patients with progressive MTC?

Q2. Do you take into account the CT and CEA doubling times when considering systemic chemotherapy for a patient with MTC?