# Thyroid 2024

## Case Scenario 1

FEMALE, 62 YO, PRESENTED FOR ANNUAL EXAM AND THYROID NODULE FOUND ON RT SIDE OF THYROID. NO LOWER NECK LNS BUT MARKEDLY ENLARGED BILAT SYMMETRIC LEVEL II LNS. PT’S VOICE IS STRONG. NO HOARSENESS. NO SYMPTOMS OF HYPO- OR HYPER-THYROIDISM.

1/12/24 US NECK: A DOMINANT NODULE, 2.8CM, WHICH IS HYPOECHOIC WITH MICROCALCIFICATIONS AND ILL-DEFINED BORDERS ON THE RT. NO PATHOLOGIC LYMPHADENOPATHY NOTED.

1/12/24 FNA THYROID NODULE CONSISTENT WITH PAPILLARY THYROID CARCINOMA.

1/24/24 UNDERWENT TOTAL THYROIDECTOMY. INTRAOPERATIVELY ABNORMAL APPEARING PRE-TRACHEAL LNS NOTED AND REMOVED.

ON DISCHARGE, GIVEN PRESCRIPTION FOR LEVOTHYROXINE TO BE TAKEN A.M. DAILY.

PAPILLARY THYROID CARCINOMA CLASSIC SUBTYPE RT LOBE: 2.7CM PTC, LT LOBE 0.4CM PTC.

NO PNI. NO LVI. NEG MARGINS. 2/5 LEVEL VI LNS. NO ENE.

DUE TO POS LNS TUMOR BOARD RECOMMENDED RADIOACTIVE IODINE I-131.

ADMINISTERED 95MCI I-131.

SUBSEQUENT SPECT I-131 IMAGING. REMNANT IN THE THYROID FOSSA.

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| Case Scenario 1 | | | | | | | | | | |
| Primary Site | |  | | MP Rule | |  | | Clinical Grade | |  |
| Histology | |  | | H Rule | |  | | Path Grade | |  |
| Behavior | |  | | Schema Discriminator 1 | | |  | | | |
| **Stage Data items** | | | | | | | | | | |
| Tumor Size Summary |  | |
| **AJCC Stage** | | | | | | | | | | |
| Clinical T | |  | | Pathological T | |  | |
| cT Suffix | |  | | pT Suffix | |  | |
| Clinical N | |  | | Pathological N | |  | |
| cN Suffix | |  | | pN Suffix | |  | |
| Clinical M | |  | | Pathological M | |  | |
| Clinical Stage | |  | | Pathological Stage | |  | |
| **EOD & SSDI’s** | | | |  | | **Diagnostic and Treatment** | | | |  |
| Summary Stage 2018 | | | |  | Diagnostic Staging Procedure | | | |  | |
| EOD Primary Tumor | | | |  | **Surgery** | | | | | |
| EOD Lymph Regional Nodes | | | |  | Surgical Procedure of Primary Site | | | |  | |
| EOD Mets | | | |  | Scope of Regional Lymph Node Surgery | | | |  | |
| Regional Nodes Positive | | | |  | Surgical Procedure/ Other Site | | | |  | |
| Regional Nodes Examined | | | |  | **Systemic** | | | | | |
| Lymphovascular Invasion | | | |  | Chemotherapy | | | |  | |
|  | | | |  | Hormone Therapy | | | |  | |
|  | | | |  | Immunotherapy | | | |  | |
|  | | | |  | Hematologic Transplant/Endocrine Procedure | | | |  | |
| **Radiation** | | | | | | | | | | |
| Phase 1 Volume | | | |  | Phase 1 # of Fx | | | |  | |
| Phase 1 Draining LNs | | | |  | Phase 1 Dose per Fx | | | |  | |
| Phase 1 Modality | | | |  | Phase 1 Total Dose | | | |  | |
| Phase 1 Planning Tech | | | |  | Number of phases | | | |  | |

## CASE STUDY 2:

PT 46 YO PRESENTED WITH 2MO HX OF NECK PAIN AND SWELLING. VOICE DIFFERENT. ON EXAM, PALPABLE LYMPHADENOPATHY IN THE RIGHT NECK.

PER ENDOCRINOLOGIST PT SEES FOR THYROIDITIS, T3 ELEVATED AND TSH SUPPRESSED.

**IMAGING:**

2/12/24 CT NECK: MULTIPLE ENLARGED BILAT CERVICAL (ONE NECROTIC) AND SUPRACLAVICULAR LNS. DENSE THICKENING OF THE LT THYROID INVOLVING THE ISTHMUS AND CROSSING THE MIDLINE TO THE RT LOBE, 6.5CM. SEVERAL ENLARGED UPPER MEDIASTINAL LNS.

2/12/24 US: THYROID MASS. CLEARLY PATHOLOGICAL RT PARATRACHEAL LYMPHADENOPATHY AND BILATERAL NECK LYMPHADENOPATHY.

2/15/24 CT CHEST: SEVERAL CALCIFIED AND NON-CALC PULM NODULES UP TO 6MM, W/ SOMEWHAT MILIARY APPEARANCE. NODULES. UPPER MEDIASTINAL AND PROBABLY LT HILAR ADENOPATHY. PROMINENT THYROID.

**PATHOLOGY:**

2/12/24 BX OF RT NECK LN. MET PAPILLARY THYROID CARCINOMA

2/21/24 TOTAL THYROIDECTOMY, BILAT HIGH-GRADE PAPILLARY THYROID CARCINOMA, TALL CELL VARIANT. 11.0CM, UNIFOCAL. MITOTIC RATE: >/= 5 MITOSES PER 2 MM2 TUMOR NECROSIS PRESENT ANGIOINVASION (VASCULAR INVASION) PRESENT, EXTENT NOT SPECIFIED. LVI PRESENT. NO PNI. INTRAOPERATIVE EXTRATHYROIDAL EXTENSION AND A POSITIVE POSTERIOR MARGIN.

51/68 LNS (NODAL LEVEL(S) INVOLVED: LEVEL VI, RT AND LT LATERAL NECK, A SINGLE **LT AXILLARY**). ENE PRESENT, LGEST MET DEPOSIT 5.9CM.

PATH STAGING: PT4A, PN1B

*Note on path report from pathologist: Axillary lymph node metastasis from papillary thyroid carcinoma is unusual and the mechanism is somewhat controversial. Some experts would consider this pM1 disease, whereas others have postulated it results from obstruction of lymphatic channels by tumor resulting in retrograde flow along the transverse cervical lymph nodes in the supraclavicular region ultimately culminating in axillary lymph node metastasis, more akin to pN1b disease.*

THE ENTIRE GLAND IS INFILTRATED BY PTC W/ MULTIPLE FOCI OF LYMPHATIC AND VASCULAR INVASION. TUMOR HAS AREAS OF NECROSIS AND ELEVATED MITOTIC ACTIVITY MEETING CRITERIA FOR DIFFERENTIATED HI-GRD THYROID CARCINOMA.

MED ONC NOTES:

SENT HOME WITH INSTRUCTIONS TO TAKE LEVOTHYROXINE DAILY IN AM

3/25/24 RECEIVED 205MCI OF I-131

SUBSEQUENT SPECT I-131 IMAGING. FAINT UPTAKE IN LEFT FOSSA. INCREASED UPTAKE IN RT SUBSTERNAL NODULE.

6/5/24 CT CAP:PROG OF MEDIASTINAL AND LT HILAR ADENOPATHY.

LUNG NODULES MIN INCREASE/ STABLE.

NEW 1.1CM GG NODULE LT LL NECK BASE ADENOPATHY INCREASED. T1 LESION CONCERNING MET.

RT LAT RIB FRACTURE, LIKELY PATH.

INDETERM RT LIVER LOBE HYPODENSITY. PELVIC OSSEOUS MET DZ.

7/14/24 CT NECK: MET LAD IN BILAT SUPRACLAV, LT>RT. INCR'D MEDIASTINAL ADENOPATHY. OSSEOUS MET DZ T-SPINE, UPPER STERNUM, LT LAT SKULL BASE AND MASTOID CELLS

7/21/24 INIT PALLIATIVE LENVATINIB PO DAILY.

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