Medical Oncology Clinic Progress Note for Charles Miller (DOB: 1952-02-20, MRN: SYN205)
Service Date: 2023-04-10
Attending Physician: Dr. Ramirez, Medical Oncology

Reason for Visit: Follow-up visit after initiating second-line therapy with Larotrectinib for NTRK-fusion positive metastatic NSCLC.

Summary of Complex Oncologic History:
Mr. Miller was diagnosed with Stage IV NSCLC in December 2020 at age 68. He presented with severe right hip pain, found to have extensive osseous metastases involving the pelvis, lumbar spine, and ribs. A primary lung lesion (RLL, 2 cm) was identified on staging PET/CT. Biopsy of an iliac crest bone lesion performed.

- **Histopathology (Bone Biopsy, 2021-01-05):** Metastatic Adenocarcinoma, confirmed by positive TTF-1 and Napsin A IHC staining within bone marrow space. Glandular structures identified.
- **Molecular Testing:** Comprehensive NGS panel identified a TPM3-NTRK1 fusion. No other actionable driver mutations found. PD-L1 IHC (SP263) TPS = 0%.

Given the NTRK fusion and CNS activity of Entrectinib, he was started on first-line Entrectinib 600mg daily, commencing 2021-01-18. He received concurrent palliative radiation to the right hip and lumbar spine. He experienced a dramatic and rapid response to Entrectinib, with complete resolution of bone pain within a month and significant regression/sclerosis of bone metastases on imaging. Brain MRI surveillance remained negative. He tolerated Entrectinib reasonably well, main side effects being Grade 1 cognitive slowing ("fogginess"), Grade 1 constipation, and Grade 1 weight gain (~10 lbs over ~1.5 years).

On September 15, 2022, surveillance PET/CT demonstrated clear evidence of systemic disease progression, with multiple new FDG-avid hepatic metastases (largest 2.5 cm) and slight increase in activity in a previously treated lumbar lesion. Brain MRI remained negative. Entrectinib was discontinued.

After discussion of options, including the potential utility of switching TRK inhibitors, he was started on second-line therapy with Larotrectinib 100mg PO BID in October 2022.

Interval History (Since starting Larotrectinib ~6 months ago):
Mr. Miller reports feeling well. His energy levels are good (ECOG 0-1). He denies bone pain. He notes his cognitive function feels slightly sharper compared to when he was on Entrectinib. Constipation remains mild, managed with Miralax. He has had no significant side effects from Larotrectinib – specifically denies dizziness, significant myalgias, nausea, or neurological symptoms. Weight has been stable since switching agents.

Objective:

- **Vitals:** Stable. Wt stable.
- **Exam:** Well-appearing, no acute distress. Exam unremarkable.

- **Labs (Today):** CBC, CMP including LFTs are all within normal limits.
- **Imaging (CT Chest/Abdomen/Pelvis - 2023-03-20 - first scan post-Larotrectinib initiation):** Partial response to Larotrectinib. Complete resolution of previously noted hepatic metastases. Stable sclerotic appearance of bone metastases. Stable RLL primary scar. No new sites of disease.

Assessment & Plan:
Mr. Miller is a 71-year-old male with Stage IV NTRK-fusion positive NSCLC Adenocarcinoma who progressed systemically on first-line Entrectinib. He initiated second-line Larotrectinib approximately 6 months ago and is demonstrating an excellent partial response (complete resolution of liver mets) with good tolerance.

1. **NTRK+ NSCLC:** Continue Larotrectinib 100mg PO BID. Patient deriving clear benefit from second TRK inhibitor after progression on first.
2. **Toxicity Monitoring:** Continue monitoring for potential Larotrectinib side effects (dizziness, neuro changes, LFTs, myalgias, edema). Currently well tolerated. Continue Miralax for constipation.
3. **Disease Surveillance:** Plan for next surveillance CT Chest/Abdomen/Pelvis in 3 months (July 2023). Continue routine surveillance Brain MRI every 6 months (next due approx. Sept 2023).
4. **Comorbidities:** Continue managing mild Osteoarthritis symptomatically with OTC analgesics as needed.
5. **Long-term Planning:** Discussed the potential for eventual resistance to Larotrectinib as well, though duration of response is variable. Mentioned potential future options like next-generation TRK inhibitors (Selitrectinib/Repotrectinib) often available via clinical trials, or chemotherapy.

Follow-up: Return to clinic in 3 months with labs prior. Call sooner for any new/worsening symptoms.

Physician Signature:

Dr. Ramirez, MD