Supplemental Figure 6

**TIMELINE OF TREATMENTS/Clinical Responses**

**2010-** Diagnosis: ganglioglioma, WHO Stage I. Family discussions held regarding therapy options. Family chooses proton beam radiation. Therapy provided and patient responds well.

**11 mo post radiation**- Presents with swallowing difficulties, veering to right when walking. MRI shows slight increase in size and increased degree of enhancement of medullary-cervical ganglioglioma. Symptoms steroid responsive.

**16 mo post radiation**- Patient presents with hiccups daily, episodes totaling up to 3 hours of the day. Noted to have some drooling. MRI stable disease.

**18 mo post radiation**- Hiccups daily, episodes lasting 30 minutes, swallowing worsening with choking solid foods. MRI shows increase of infiltration of ventral brain stem. Longitudinal comparison of scans from 12/10, substantial increase in the infiltration. Diagnosed as first recurrence. Tumor found to be V600E positive.

**Start Vinblastine/Vemurafenib.** Hiccups up to 23 hours/day.

**6 weeks combination therapy:** MRI shows decreased involvement of medulla, pons, upper cervical cord.

**10 weeks combination therapy:** Hiccups/swallowing difficulties resolved.

**Remained on vinblastine, vemurafenib for 11 months.**

**11 mo combination therapy:** Hiccups lasting all night. New left CN VII palsy, new balance concerns. MRI shows new focus on nonenhancing T2 hyperintensity at the pontomedullary junction. **Last dose of vinblastine given.**

**Chloroquine started 1 week after vinblastine stopped.**

**4 weeks CQ combination therapy**- Hiccups resolving, down to a couple of episodes a day last no longer than 1 min

**6 weeks CQ combination therapy**- MRI demonstrates interval improvement in signal abnormality at pontomedullary junction

**Continues to do clinically well on vemurafenib/CQ. CNVII palsy resolved.**

**5 mo combination therapy**- Stopped vemurafenib for 6 weeks due to insurance issues, remained on CQ alone. Increase in hiccups and return of swallowing difficulties during. Some slight balance issues. MRI stable during this period.

**6 1/2 mo** - Completes 6 week vemurafenib break.

**7 1/2 mo**- Symptom improvement, resolution of swallowing complaints, balance issues, and improved hiccups.

**9 mo**- Painful skin nodules (vemurafenib side effect). Held vemurafenib doses, continued on CQ.

**10 mo**- Skin improvement but increase in hiccups. MRI shows mild increase in tumor of the medulla (attributed to vemurafenib break). Restarted vemurafenib. Continued CQ.

**11 mo**- Hiccups improved.

**12 mo**- MRI demonstrates decrease of medullary tumor in both caudal and cranial measures. Clinically stable.

**16 mo**- MRI continues with stable disease. Clinical status stable.