| | | | |
|---|---|---|---|
| Patient: | [ | Order #: | |
| Account#: | LOC: | Collection D/T: | |
| MR#: | ATT DOC: | Received D/T: | |
| Age/Sex: | Req By: | Date of report: | |
| DOB: | Other Doc: | Sample type: | **Brain** |



## ADDENDUM

**Final Diagnosis:**

**FINAL DIAGNOSIS**
**Brain , left basal ganglia/ventricular region, resection: -Residual/recurrent anaplastic pleomorphic xanthoastrocytoma (PXA), WHO Grade III**
**-See comment**

**Comment:**
**This patient has a clinical history of neurofibromatosis; he was diagnosed with PXA, treated extensively and had multiple recurrences.**
**The present tumor is similar in overall appearance to the patient's previous resections ( ) and meets the criteria for anaplastic PXA by the WHO classification.**

**Microscopic Description:**
Sections reveal a moderately cellular tumor composed of medium-to-large cells with markedly atypical, pleomorphic nuclei and abundant cytoplasm. Mitotic figures are readily apparent and estimated at up to 9 per 10 high-powered (400x) fields. Necrosis and vascular proliferation are seen. There is patchy mixed inflammation. The tumor cells are strongly and diffusely positive for GFAP and a MIB-1/Ki-67 proliferative index is estimated at up to 30%

Anaplastic Pleomorphic Xanthoastrocytoma WHO Grade III
Basal Ganglia Ventricles

**FROZEN SECTION DIAGNOSIS**
Specimen Description
Recurrent residual anaplastic PXA.
Reported by:
Reported to:
Date Reported:
Time Reported:

**ADDENDUM**
This addendum is issued to report the result of Comprehensive solid tumor NGS panel done in the Division of Genomic Diagnostics/Cancer Genomic Diagnostics of

**SUMMARY OF FINDINGS**

Next generation sequencing (NGS) analysis of genes in the Comprehensive Solid Tumor NGS Panel performed on the DNA and RNA extracted from the tumor specimen of the patient showed the following results:

1. Three Tier 2 sequence variants:
*NF1* (NM_001042492.2), c.5464C>T (p.Q1822*),
*NF1* (NM_001042492.2), c.1748A>G (p.K583R),
*TP53* (NM_001126114.2), c.707A>G (p.Y236C),

2. Multiple Tier 2 copy number variants (CNVs), including loss of partial 17p including *TP53*,

3. Two variants of unknown significance as listed in the Tier 3 variant table,

4. Four rare likely benign or benign variants as listed in the Tier 4 variant table

5. No known or novel fusions were detected in this patient's tumor sample within the detection limits of this assay.

In summary, the NGS analysis identified a tumor genome with *NF1* and *TP53* mutations and complicated copy number variations, some of which were seen in previous SNP array analyses. These results are consistent with recurrent pleomorphic brain tumor, recurrent high grade PXA, SNP array previously done.

The complete report, signed out by Dr. , can be found on Epic ( ).

**Medical History:**

Preoperative Diagnosis: Brain tumor
Postoperative Diagnosis: Pending pathology
Procedure: Craniotomy for brain tumor
Clinical History: 26 year old male with neurofibromatosis type 1, recurrent brain tumor, malignant astrocytoma

**Tissue:**

Specimen: A Brain
ventricular brain tumor

Specimen: B Brain
ventricular brain tumor

**Gross:**

**A:** The specimen is received fresh for frozen section in a container labeled with the patient's name, medical record number and designated "ventricular brain tumor". It consists a 1.0 x 1.0 x 0.5 cm aggregate pink and yellow, rubbery tissue. Representative tissue is submitted for frozen evaluation, slides are generated and labeled FSA1. The frozen tissue is then sent to cytogenetics ( ). Representative tissue is submitted for research according to the

CBTTC protocol. The remainder of the specimen is entirely submitted in cassette A1.

Patient blood is received separately with the specimen and entirely submitted for research according to the CBTTC protocol.

**B**: The specimen is received fresh in a container labeled with the patient's name, medical record number and designated "ventricular brain tumor". It consists of two fragments of red white and yellow tissue measuring 1.5 x 0.5 x 0.3 cm in aggregate. One fragment is submitted for research according to the CBTTC protocol. The remaining fragment is submitted in cassette B1.

**Electronically Signed**

"These tests were developed and their performance characteristics determined by the Pathology Department at . They have not been cleared or approved by the U.S. Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. These tests are used for clinical purposes. It should not be regarded as investigational or for research. This Laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) as qualified to perform high complexity clinical laboratory testing."