7316-2069

Surgical Pathology Final Report
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Clinical Information

Preop Diagnosis: Brain tumor
Procedure: Craniotomy, resection of tumor
Clinical History: Per the electronic medical records: The patient is a 6-year-old male who has a history of a right temporal lobectomy and resection of a temporoparietal tumor Outside biopsy and pathology was confirmed to be an anaplastic astrocytoma. The patient has undergone chemotherapy with Temodar, bevacizumab, and irinotecan as well as radiotherapy in Patient recently has had complaints of headaches, nausea and vomiting, follow-up MRI scan showed a significant interval increase in the enlargement of the enhancement, now measuring 5 x 5 x 6 cm with significant surrounding edema.

Gross Description

A) Received fresh for intraoperative consultation labeled BRAIN TUMOR are two pieces of tan-pink fragile tissue measuring 0.3 cm x 0.4 cm x 0.3 cm. A piece is frozen for frozen section diagnosis, two touch preparations and kept frozen.
FROZEN SECTION DIAGNOSIS: HIGH GRADE GLIAL TUMOR (KP)
The remainder of the tissue that is not frozen is submitted in a single cassette, A1.
B) Received fresh in a specimen container and labeled BRAIN TUMOR are three pieces of fragile tan-pink tissue measuring 3 cm x 0.5 cm x 0.5 cm, 0.5 cm and 0.5 cm in greatest dimension. Touch preps are prepared. Two cryovials are also frozen. No frozen sections are cut from this tissue. The rest of the specimen is submitted in two cassettes, B1-B2.
C) Received fresh for intraoperative consultation labeled POSTERIOR EDGE OF RESECTION CAVITY is a pink-tan fragile tissue measuring 1 cm x 0.2 cm x 0.2 cm. The specimen is submitted entirely for frozen section diagnosis and two touch preparations are also prepared.
FROZEN SECTION DIAGNOSIS: HIGH GRADE GLIAL TUMOR (KP)
The remainder of the frozen tissue is submitted in a single cassette, CFS.
D) Received fresh labeled BRAIN TUMOR are four fragments of pink-tan, partially fleshy and partially fragile appearing solid tissues measuring 1.5 cm x 1 cm x 0.5 cm, 1.2 cm x 1 cm x 0.6 cm, 1 cm x 0.7 cm x 0.5 cm, and 0.9 cm x 0.5 cm x 0.5 cm. One of the tissues is already put in a purple research cassette. The remainder of the tissue is submitted in cassettes D1-D2. [CU]
E) Received fresh labeled CUSA CONTENTS are multiple partially fragile and necrotic appearing, tan-pink, brown tissues that measure 6 cm x 5 cm x 1 cm in aggregate in a CUSA bag. Representative pieces are submitted in between tissue paper in four cassettes, E1-E4. [CU]

Tissue handling:
Snap frozen in cryovial: Two lesion (part B), two lesion (part D)
Snap frozen in cassette: One (OCT), part A
Research specimen in PBS: One (part B)
Purple cassettes: One (part A) Seven (part E)

Microscopic Description

A-E) H&E-stained sections contain portions of an infiltrative high grade, markedly pleomorphic glial neoplasm in all parts. Many cells are large with eccentric nuclei and abundant eosinophilic cytoplasm. In other areas the cells are small and primitive with minimal cytoplasm. Large, pleomorphic multinucleated neoplastic cells are scattered throughout. In some areas the neoplastic cells are seen in sheets and fascicles. There is abundant palisading necrosis and vascular proliferation with many glomeruloid structures. Some of the vascular structures are thick walled and hyalinized. Mitotic

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activity is extremely high (>10 mitoses per one hpf in some regions) and many atypical mitotic figures are present. Focal geographic necrosis is present. Part E (CUSA contents) contains portions of hypercellular brain parenchyma with marked infiltration by neoplastic cells.

Diagnosis

A-E) RIGHT PARIETAL TUMOR, RESECTION: GLIOBLASTOMA, WHO GRADE IV

Comment

The previous two cases were reviewed In areas, the current neoplasm appears similar to the previous, though the neoplastic cells are now more pleomorphic, and the prominent vascular proliferation and palisading necrosis were not seen in the previous case.

neuropathologist, has also reviewed the slides.

CAP Brain / Spinal Cord Cancer Protocol

Tumor Site: Parietal lobe
Laterality: Right
Procedure: Resection
Histologic Type: Glioblastoma
Histologic Grade: WHO grade IV
Specimen size: Largest part E, 6 x 5 x 1 cm
Specimen Handling: Smear, frozen section, frozen, unfrozen FFPE sections
Ancillary Studies: None
History of Previous Tumor/Familial Syndrome: Father reportedly died of a GBM
Neuroimaging: 'Enlargement of the the right parietotemporal lobe mass, now with a discrete mass measuring 5.2 x 5.4 x 6.3 cm with associated irregular heterogeneous enhancement"
Focality: Unifocal
Preresection treatment: Chemotherapy, radiation therapy (>1 year ago)