[redacted]

Microscopic

Microscopic examination reveals a moderately cellular glial neoplasm. The tumor is composed of cells with both astrocytic and oligodendroglial features. The oligodendroglial component exhibits a proliferation of cells with round to oval, moderately pleomorphic nuclei with prominent preinuclear halos. Scattered microgemistocytes are identified, as well. The minor astrocytic component consists of neoplastic cells with oval to elongate nuclei and moderate cytologic atypia. Overall, only a rare mitotic figure is seen; however, mitoses are focally elevated at up to 3 mitoses per 10 high power fields. Neither necrosis nor microvasculascular proliferation are identified. The neoplastic cells are identified infiltrating the adjacent brain parenchyma. The histologic features are consistent with an oligoastrocytoma. A final diagnosis will be issued pending review of MIB-1 labeling index.

Addendum

A MIB-1 labeling index was performed on three blocks of tissue. Overall, the MIB-1 labeling index is low at 2.4-3.7%; however, a focal region of tumor demonstrates increased proliferative activity at 6.2%. The focally elevated MIB-1 labeling index, in conjunction with focally increased mitotic activity at 3 mitoses per 10 high power fields, are suggestive of very early anaplastic progression in an otherwise low grade glioma.

Diagnosis

Oligoastrocytoma, (oligodendroglioma predominant), with findings consistent with early anaplastic progression, WHO grade III