

### **Microscopic**

Sections demonstrate a moderately to markedly hypercellular glial neoplasm that diffusely infiltrates by gray and white matter. The tumor cells have round nuclei and consistently demonstrate perinuclear halos. Atypia is moderate. Scattered mitotic figures are seen with up to 4 mitoses identified in 10 high power fields. No microvascular proliferation or necrosis is seen.

### **Addendum**

Sections demonstrate a moderate to marked hypercellular glial neoplasm consisting of sheets and nests of atypical cells which resemble oligodendrocytes. The tumor cells exhibit moderate cytologic atypia, prominent perinuclear halos and round nuclei. Scattered microgemistocytes are also present. The tumor infiltrates the adjacent brain parenchyma. Architecturally, the tumor demonstrates both microcyst and microcalcifications. Neither microvascular proliferation nor necrosis is seen. The histologic features are consistent with an oligodendroglioma.

The MIB-1 labeling index ranges up to 15.5% in the most proliferative regions of tumor consistent with an anaplastic oligodendroglioma

### **Diagnosis**

Anaplastic oligodendroglioma Grade III