CASE 052

CŌRE DIAGNOSTICS™

IS A DIAGNOSIS OF GLIOBLASTOMA, WHO GRADE IV ENOUGH?

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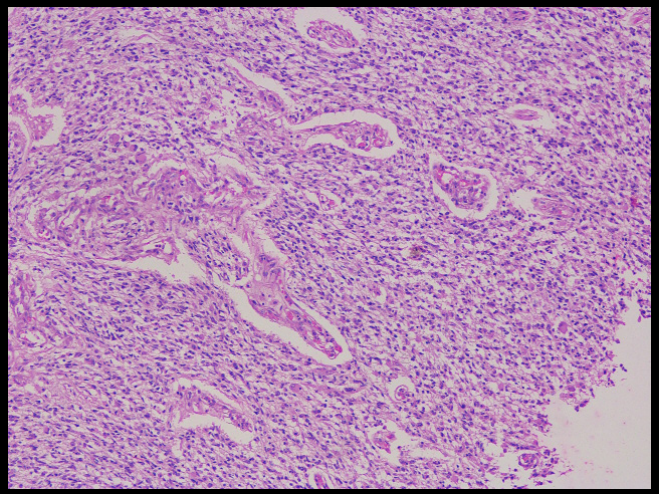
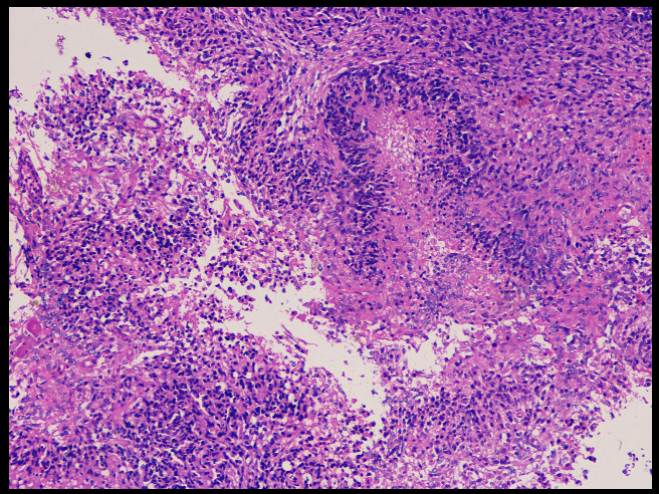
A 69-year old male patient presented with complaints of gradual onset of slurring of speech since 20 days along with deviation of face since last 5 days. MRI brain revealed a high grade neoplasm 6.5x 5.0x 5.0 cm in the right gangliocapsular region and frontal lobe with perifocal edema and mass effect. There was no history of any prior therapy.





Frozen section was suggestive of a high grade glioma. Paraffin sections revealed a Glioblastoma (GBM), WHO grade IV with marked nuclear pleomorphism, increased mitotic activity and focal areas of necrosis and microvascular proliferation. Immunohistochemistry revealed negativity for IDH R132H and P53 with retained ATRX expression and a Ki67 index of 12-15%. PCR sequencing revealed wildtype IDH1 132 and IDH2 172mutation conforming to a Primary Glioblastoma. The tumor also showed MGMT methylation by PCR. Later we also received a request for Glioseq testing by Next generation sequencing (NGS) to look for other molecular alterations. The results were as below: