Co-existence of glioblastoma and cerebral aneurysm

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A previously healthy 59-year-old female presented with progressive headaches and confusion. Examination revealed mild confusion and gait instability but otherwise a nonfocal neurological examination. Initial MRI (Figure 1, top left and right) demonstrated a right frontal parenchymal mass contained within was an aneurysm. The patient underwent cerebral angiography (Figure 1, bottom) during which the

aneurysm was successfully ablated by placement of coil. Subsequently, the patient underwent an image-verified complete resection of the intracranial mass which proved by histopathology to be a glioblastoma. Notwithstanding the highly vascular nature of glioblastoma (graphically illustrated by contrast angiography), the coexistence of glioblastoma and intracranial aneurysm is rare [1,2].

Figure 1. MRI and angiography of an aneurysm contained within a glioblastoma.

(Top left) T2W axial MRI demonstrating an aneurysm within a right frontal parenchymal mass; (top right) T1W contrast axial MRI demonstrating a right frontal contrast enhancing parenchymal mass; (below) Right internal carotid artery angiogram AP view demonstrating a right internal frontal artery aneurysm within a vascular intraparenchymal mass.

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