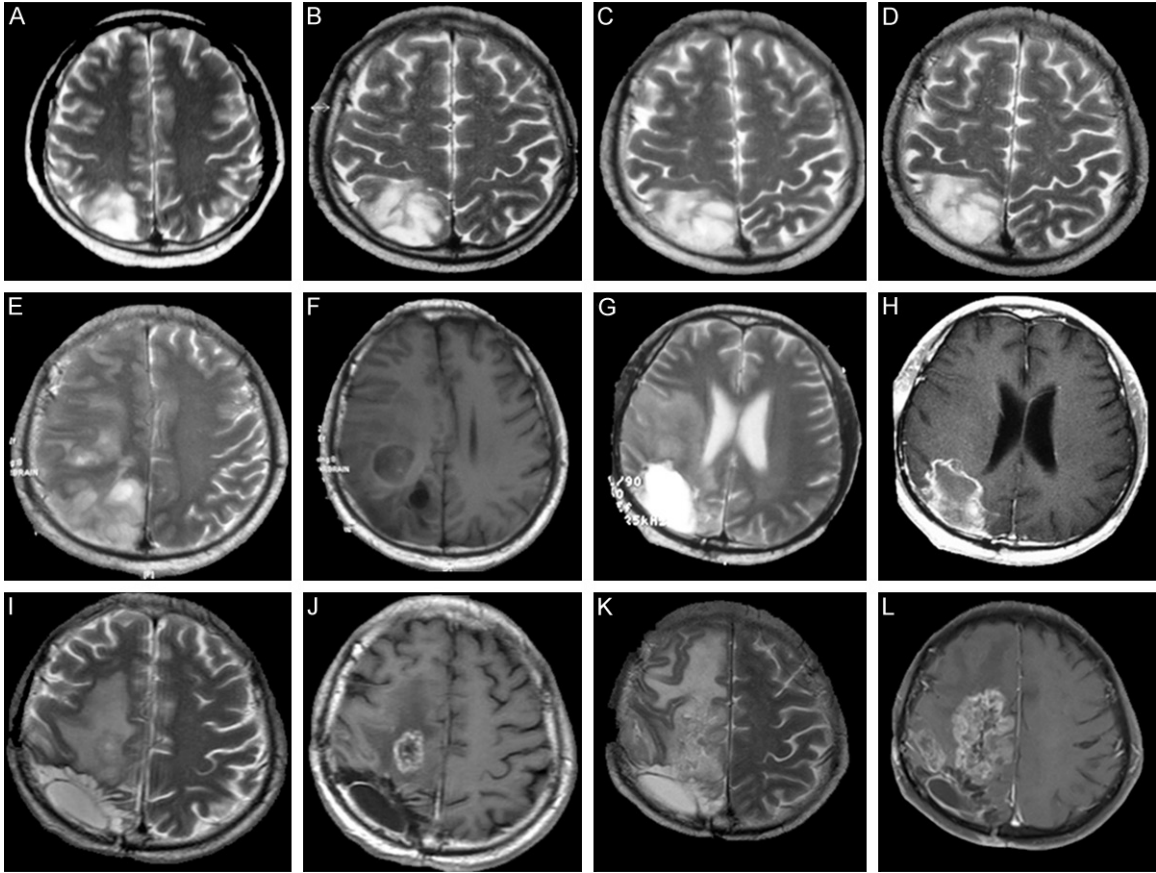


Incidentally discovered LGG *IDH* mutated and 1p19q co-deleted



Supplementary Figure 1. Typical case illustrating deferring surgical resection of suspected IDLGG led to malignant transformation of the tumor. A 48 years old Chinese male patient was diagnosed with IDLGG after a routine preoperative cranial MR scan before the planned resection of his cervical intraspinal schwannoma (C5 segment) in the year of 2000 (A: axial T2-weighted sequences). Although surgical resection was strongly recommended by neurosurgeons, the patient refused any surgical intervention or radio-/chemo-therapies and MR follow-up revealed a slowly growing nature of the lesion (B: 2005, axial T2-weighted sequences; C: 2007, axial T2-weighted sequences; D: 2008, axial T2-weighted sequences). However, in late 2011, the patient began to complain about aggravating headache, left-sided hemianesthesia and weakness in his lower left limb and the subsequent contrast enhanced MR showed increased tumor volume with significant peritumoral edema and mass effect (E: axial T2-weighted sequences; F: axial T1-weighted sequences after contrast enhancement). At this time, the patient accepted the advice from the physician to receive the surgery under general anesthesia. Unfortunately, although 3.0 T intraoperative MR imaging (iMRI) was applied to assist the operation, because the tumor had already invaded the sensory-motor cortex and corticospinal tract, only a subtotal gross resection was achieved as shown by postoperative contrast enhanced MR scan before radiotherapy (G: axial T2-weighted sequences; H: axial T1-weighted sequences after contrast enhancement). Pathological diagnosis is a WHO grade IV GB with oligodendrogliomas. Despite standard fractionated radiotherapy and ongoing temozolomide chemotherapy have been delivered to the patient, MR follow-up (I: axial T2-weighted sequences; J: axial T1-weighted sequences after contrast enhancement: 2013. 7) suggested a local relapse of the lesion. MR follow-up (K: axial T2-weighted sequences; L: axial T1-weighted sequences after contrast enhancement: 2013. 11) demonstrated tumor progression despite chemotherapy with temozolomide.