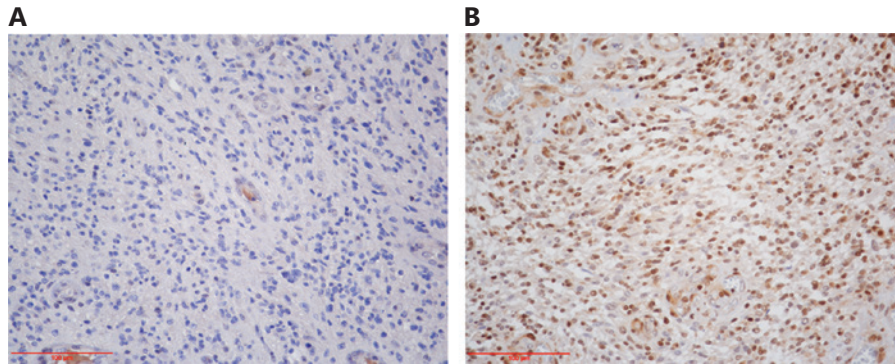
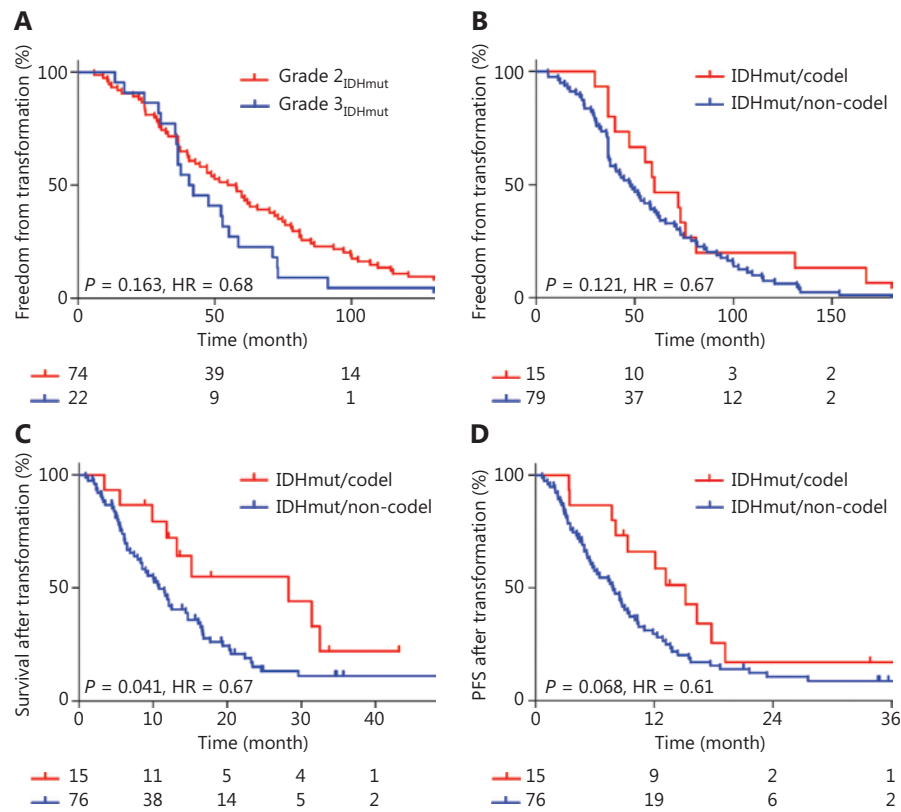


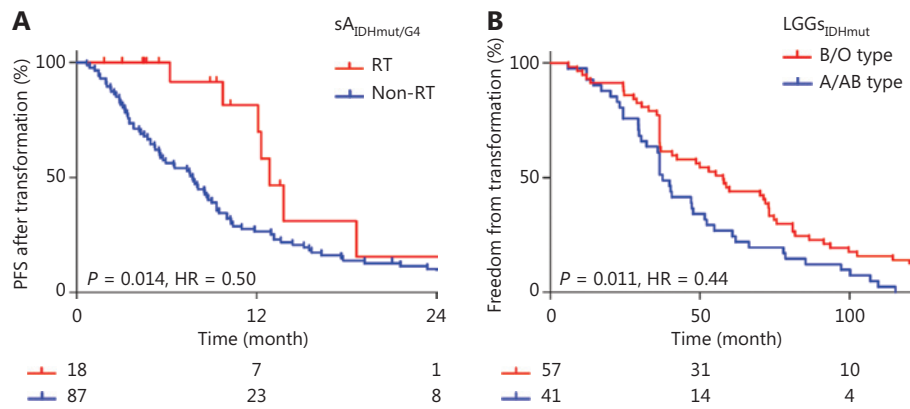
# Supplementary materials



**Figure S1** MGMT promoter methylation, validated by immunohistochemistry. Negative and methylation (A); positive and non-methylation (B).



**Figure S2** Malignant transformation from LGGs to  $sA_{IDHmut/G4-}$ . Kaplan-Meier estimates of transformation time between grade 2 and 3 gliomas (A) and between 1p/19q non-codeleted LGGs and codeleted LGGs (B). Kaplan-Meier estimates of overall survival (C) and progression-free survival (D) after transformation between 1p/19q non-codeleted LGGs and codeleted LGGs.



**Figure S3** Survival analysis based on different subgroups. (A) Radiotherapy was associated with improved progression-free survival after transformation. (B) Transformation time was shorter in patients with blood type A/AB than in patients with blood type O/B.