About two decades ago, management of low grade glioma (LGG) was unclear. The role of surgery was considered an option and the prognosis of LGG could not be determined well. In these two decades enough research has occurred to elucidate the role of surgery in LGG. Molecular analysis of LGG has also demonstrated that more than histopathological diagnosis molecular markers reflecting the sub-types of LGG may be more linked to the prognosis. These molecular studies include immunohistochemistry and cytogenetics. When it comes to surgical resection, several guidelines and recommendations have been developed and published in a series of papers as systematic reviews and evidence-based clinical practice guidelines. These have been categorized from Level I to Level III. The role of radiation therapy needs further discussion, although Level I recommendation based on the studies is to proceed with radiotherapy irrespective of the extent of location. As far as chemotherapy is concerned, the strategy has to shift towards personalized therapy based on detailed molecular analysis of the LGG.