INTRODUCTION

A focus on low-grade glioma

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In this issue of *Neurosurgical Focus*, five papers address current insight into low-grade glioma imaging, medical and surgical management, and natural history. Three of these articles (Mert et al., Sommer et al., and Ottenhausen et al.) tackle the problems inherent in achieving improved technical outcomes in low-grade glioma surgery. These authors examine the intersection of imaging, intraoperative navigation, and a substantial extent of resection to improve both survival and seizure control. Specifically, Ottenhausen et al. and Mert et al. focus on integrating pre- and intraoperative functional mapping to improve surgery. These efforts are designed to facilitate maximal safe resection of low-grade gliomas. Sommer et al. highlight how intraoperative MRI and navigation can inform and enhance ganglioglioma resection strategies for im-

proved quality of life outcomes and seizure control. Claus et al. describe the potent effect that the genetic makeup of low-grade gliomas has on prognosis. Finally, Nitta et al. propose integrating efforts to maximize resection and tumor genetic features to yield a standardized strategy for managing low-grade glioma from both surgical and medical (adjuvant therapy) perspectives. They propose a strategy of maximizing extent of resection in patients with lower-grade gliomas and withholding adjuvant therapies unless other negative prognostic factors are noted, such as a wild-type isocitrate dehydrogenase mutation status, and/or only if a partial resection was achieved. Please see the accompanying editorial by Drs. Hulou and Chiocca for an additional perspective on this topic.

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