

Hypnosis for Awake Brain Tumor Surgery: Pros and Cons

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Introduction

Awake brain tumor surgery, also known as awake craniotomy, is a specialized neurosurgical technique that allows surgeons to remove brain tumors while the patient remains awake and responsive. This procedure offers several advantages, including real-time assessment of neurological function, maximization of tumor resection and preservation of critical brain regions responsible for speech, motor function and cognition. However, awake brain tumor surgery can be challenging for patients due to anxiety, discomfort and fear of the surgical experience. To address these concerns and enhance patient comfort and cooperation during awake brain tumor surgery, hypnosis has emerged as a promising adjunctive therapy. Hypnosis involves inducing a trance-like state of focused attention and heightened suggestibility, allowing patients to achieve a state of relaxation, pain control and reduced anxiety. This comprehensive discourse seeks to explore the use of hypnosis for awake brain tumor surgery, encompassing an introduction to awake craniotomy, the role of hypnosis in enhancing patient comfort and cooperation, potential benefits and limitations, clinical considerations and future directions for research and clinical practice [1].

Description

Awake brain tumor surgery is a neurosurgical technique that enables surgeons to remove brain tumors while the patient remains awake and alert. This approach allows for real-time assessment of neurological function, particularly in eloquent brain regions involved in speech, motor function and cognition, thereby minimizing the risk of postoperative neurological deficits. Awake brain tumor surgery typically involves the administration of local anesthesia to the scalp and skull, followed by the creation of a small craniotomy or opening in the skull to access the tumor. Once the tumor is exposed, the patient is awakened from anesthesia and neurological function is assessed using various intraoperative techniques, such as direct cortical stimulation and language mapping. During the procedure, patients may experience sensations of pressure or discomfort but should not feel pain due to the local anesthesia. While awake brain tumor surgery offers several advantages, including improved tumor resection and neurological outcomes, it can be an anxiety-provoking experience for patients. The prospect of being awake during brain surgery, coupled with the sterile environment of the operating room and the presence of medical equipment and personnel, can elicit fear, stress and discomfort in patients undergoing awake craniotomy. To address these psychological and emotional challenges and enhance patient comfort and cooperation, adjunctive interventions such as hypnosis have been increasingly utilized in the perioperative setting. Hypnosis involves inducing a trance-like state of focused attention and suggestibility, allowing patients to enter a state of deep relaxation, dissociation from pain and altered perception of sensory stimuli [2,3].

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The use of hypnosis for awake brain tumor surgery holds several potential benefits for patients, surgeons and healthcare providers. First and foremost, hypnosis can help alleviate anxiety and fear associated with the surgical experience, promoting a sense of calmness, control and psychological well-being in patients undergoing awake craniotomy. By inducing a state of relaxation and reducing stress, hypnosis may also facilitate patient cooperation and compliance during intraoperative neurological testing, enhancing the accuracy and efficacy of functional mapping and tumor resection. Additionally, hypnosis has been shown to provide effective analgesia and anesthesia adjunctive therapy, allowing patients to experience reduced pain and discomfort during awake brain tumor surgery without the need for additional sedation or analgesic medications. Furthermore, hypnosis has the potential to improve postoperative outcomes and recovery following awake brain tumor surgery. By reducing perioperative stress and anxiety, hypnosis may mitigate the risk of complications such as hypertension, tachycardia and postoperative delirium, which can negatively impact patient recovery and length of hospital stay. Moreover, hypnosis has been associated with enhanced pain management, faster wound healing and reduced opioid consumption in the postoperative period, leading to improved patient satisfaction and quality of life following awake craniotomy. Additionally, hypnosis may have long-term psychological benefits for patients undergoing awake brain tumor surgery, including reduced fear of medical procedures, increased self-efficacy and improved coping skills for managing stress and anxiety in future healthcare encounters [4,5].

Despite the potential benefits of hypnosis for awake brain tumor surgery, several considerations and limitations should be taken into account when incorporating hypnosis into clinical practice. First, not all patients may be suitable candidates for hypnosis, as individual differences in hypnotic susceptibility, cognitive function and psychological factors may influence the effectiveness of hypnosis as an adjunctive therapy. Moreover, hypnosis requires specialized training and expertise on the part of the healthcare provider, including knowledge of hypnotic induction techniques, patient assessment and monitoring during the perioperative period. Additionally, the use of hypnosis for awake brain tumor surgery should be integrated into a multidisciplinary approach to patient care, including collaboration between neurosurgeons, anesthesiologists, psychologists and other healthcare professionals to ensure optimal patient outcomes and safety.

Conclusion

In conclusion, hypnosis represents a promising adjunctive therapy for enhancing patient comfort, cooperation and outcomes during awake brain tumor surgery. By inducing a state of relaxation, reducing anxiety and providing effective analgesia, hypnosis has the potential to improve the surgical experience for patients undergoing awake craniotomy while minimizing the need for sedation and analgesic medications. Furthermore, hypnosis may have long-term psychological benefits for patients, including reduced fear of medical procedures and enhanced coping skills for managing stress and anxiety. However, further research is needed to elucidate the mechanisms of action of hypnosis in the perioperative setting, identify patient factors associated with responsiveness to hypnosis and optimize protocols for integrating hypnosis into clinical practice. Through collaborative efforts between neurosurgeons, anesthesiologists, psychologists and other healthcare professionals, hypnosis may offer new avenues for improving patient care and outcomes in awake brain tumor surgery.

Acknowledgement

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Conflict of Interest

None.

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