

Table 1: Surgical procedures for managing trigeminal neuralgia without clear neurovascular compression.

Procedure	Pros	Cons
Glycerol injections	Low risk; Inexpensive; Small impact on facial sensation	High recurrence rates; Risk of dyesthesias; Specific to elderly and weak populations
Radiofrequency ablation	Good immediate pain relief rate; Low complication rates; Easily repeated	Risk of recurrence and sensory paresthesias
Stereotactic Radiosurgery	Noninvasive; Easily repeated	Higher rates of recurrence
Partial sensory rhizotomy	Good long-term results	Invasive; results in facial numbness
Balloon rhizotomy	Good immediate pain relief rate	High recurrence rates after short periods of time
Internal neurolysis	Produces durable results comparable to partial sensory rhizotomy	Invasive; Results in post-operative facial numbness and dyesthesias; may lead to quality of life concerns
Microvascular decompression	Good success rates for patients with typical trigeminal neuralgia	Invasive; Not clearly beneficial in patients without arterial vascular compression
Tractotomy of the descending spinal tract of the trigeminal nerve	Better long-term success reported so far; no reported permanent iatrogenic neurologic complications	Invasive; not replicated at other institutions