Trigeminal neuralgia outcome

Recurrence

Trigeminal neuralgia (TN) recurring after surgery can be difficult to treat. Treatment algorithms have not been standardized or universally accepted.

The records of 22 patients (13 M and 9 F) suffering recurrent TN after one (2 gamma knife surgery, 5 percutaneous radiofrequency rhizotomy, 6 percutaneous retrogasserian glycerol rhizotomy, 3 microvascular decompression) or more (6 patients) procedures were reviewed. Seven patients had TN related to multiple sclerosis (MS). Mean follow-up was 51.81 ± 26.63 months. 81.81 % of patients reported an acute pain relief. No major complication was observed after PBC. Eight patients (36.36 %) experienced pain recurrence and underwent one (five patients) or more (three patients) PBC. At the last follow-up, we obtained an excellent outcome (BNI I-II) in 16 patients out of 22 (72.72 %) and a good outcome (BNI III) in the remaining six. No patients had an uncontrolled pain. The lack of history of MS ($p = 0.0174$), the pear-like shape of the balloon at the operation ($p = 0.0234$) and a compression time <5 min ($p < 0.05$) were associated to higher pain-free survival. Considering these results PBC could be considered a useful technique for patients whose pain recurs after other procedures [1].

Although no procedure is best for all patients, posterior fossa exploration PFE gives the operating surgeon the option of performing either a nondestructive (microvascular decompression) or destructive (partial sensory rhizotomy) procedure and is associated with better facial pain outcomes for this difficult patient group [2].

Complications

The study of Montano et al., shows no differences in the short term results among different procedures for TN in MS patients. Each technique demonstrate advantages and limits in terms of long term pain, recurrence rate and complication rate. Each patient should be accurately informed on pros and cons of each procedure in order to be involved in the most appropriate choice [3].

Mortality

Mortality rates for MVD (0.22%), rhizotomy (0.42%), and SRS (0.12%) were low [4].

1)
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3)
Montano N, Papacci F, Cioni B, Di Bonaventura R, Meglio M. What is the best treatment of drug-

resistant trigeminal neuralgia in patients affected by multiple sclerosis? A literature analysis of surgical procedures. Clin Neurol Neurosurg. 2013 May;115(5):567-72. doi: 10.1016/j.clineuro.2012.07.011. Epub 2012 Jul 26. Review. PubMed PMID: 22840414.

4) Wang DD, Ouyang D, Englot DJ, Rolston JD, Molinaro AM, Ward M, Chang EF. Trends in surgical treatment for trigeminal neuralgia in the United States of America from 1988 to 2008. J Clin Neurosci. 2013 Nov;20(11):1538-45. doi: 10.1016/j.jocn.2012.12.026. Epub 2013 Aug 7. PubMed PMID: 23932422.