Recurrent glossopharyngeal neuralgia

A thorough exploration of REZ for small arteries and veins is mandatory to prevent a recurrence. Vascular compression can occur at the cisternal portion or at the REZ. In recurrent cases, splitting of the glossopharyngeal nerve rootlets adds to the good outcome [1].

For selection of treatment strategies for recurrent glossopharyngeal neuralgia after MVD. see Ni B, Hu Y, Du T, Zhang X, Zhu H. Selection of treatment strategies for recurrent glossopharyngeal neuralgia after MVD. Acta Neurochir (Wien). 2021 Feb 10. doi: 10.1007/s00701-021-04740-3. Epub ahead of print. PMID: 33569713 [2].

Reoperation

Reoperation through the previous incision is safe and effective. The bone window should be close enough to the sigmoid sinus to aid the exposure of the nerve root. The nerve transection could be adopted if no offending vessels were found. And a multi-site decompression could be used when the vertebral artery is the offending vessel [3].

Gamma Knife surgery

Salvage GKS is safe and effective for treating recurrent glossopharyngeal neuralgia after MVD, even for patients who experienced pain recurrence following their initial GKS salvage [4].

Second GKR resulted in pain reduction with a low risk of additional morbidity. In patients unsuitable for microvascular decompression, GKR as a repeat or third treatment for intractable GPN is safe and effective. Third GKR was not associated with any side effects up to 16 months after the procedure [5].

Twelve cases of repeat SRS for GPN have previously been reported in the literature (13 studies including ours). Among patients with follow-up, initial pain relief was achieved in 83% (n = 10) of cases a median of 5 weeks after repeat SRS; 2 patients failed to obtain any pain relief. A favorable pain response (BNI I-IIIb) was achieved in 67 and 58% of cases at 6 and 12 months, respectively. All 13 were targeted to the glossopharyngeal meatus. Three patients (23%) experienced adverse radiation effects. Five patients (50%) experienced recurrence a median of 14 months after repeat SRS. Two patients (17%) required additional surgical intervention. At the final follow-up, 75% (n = 9) of the patients had a favorable pain outcome. Key Messages: Repeat SRS may be a viable alternative to open surgery for the treatment of recurrent GPN, albeit with an increased risk of adverse radiation effects. Though limited by a small cohort of patients, the best predictors of effective second treatment may be a response to initial SRS for >5 months, a maximum dose >75 Gy, and a target at the glossopharyngeal meatus. Larger prospective studies are needed to better define its role [6].

CT-guided percutaneous radiofrequency thermocoagulation

A study indicates that percutaneous radiofrequency thermocoagulation is a minimally invasive procedure that leads to minor complications and is proven to have immediate and long-term effectiveness for managing GPN. It is especially suitable for patients with contraindications to surgery and patients who require recurrent treatment [7)].

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