Better patient satisfaction with microvascular decompression than with radiosurgery in spite of higher minimum clinically important difference

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AANS, April 28 - May 2, 2018
Disclosures

- No disclosures
Introduction

- The Penn Facial Pain Scale (PFPS) is a validated multidimensional tool measuring facial pain.
- In this study, the PFPS was used to compare patient satisfaction after microvascular decompression (MVD) or Gamma Knife (GK) radiosurgery.
Methods

- We retrospectively compared patients with facial pain seen by a single neurosurgeon that underwent either MVD or GK.
- Patients completed baseline and 1-month follow-up PFPS questionnaires. A 7-point patient global impression of change was used as the anchor to calculate MCID.
- An ROC curve was constructed by calculating the accuracy of percentage change in PFPS scores, where patients’ reports of “very satisfied” or “mostly satisfied” were considered positive outcomes.
- The optimal cutoff point was calculated to define the MCID. Statistical significance was established with t-test or Fisher’s exact test.
Results

- A concurrent series of 111 patients underwent MVD (age 56.7 +/-11.7), and 142 patients underwent GK (68.2 +/- 12.6).

- At baseline, PFPS scores in all three categories were statistically indistinguishable between both groups.

- Change in worst pain (MVD -6.5 vs. GK -4.1 ; t-test, p<0.001), average pain (-5.1 vs. -3.0; p<0.01), general interference (-5.0 vs. -3.4; p=0.001), and facial interference (-6.2 vs. -3.9; p<0.001) were greater following MVD.
The MCID in the MVD group was 57% (AUC=0.89), 35% (AUC=0.89), 68% (AUC=0.87), and 86% (AUC=0.93) respectively. MCID in the GK group was 52% (AUC=0.74), 27% (AUC=0.81), 55% (AUC=0.84), and 45% (AUC=0.84), respectively.

The number of patients who exceeded the MCID was higher in the MVD group for improvement in worst pain (Fisher’s; p=0.001), average pain (p=0.016), and general interference (p=0.013).

There was no difference in improvement in facial interference (p=0.053).
Conclusion

- Patients undergoing MVD have higher expectations to reach a meaningful clinical improvement, and have a higher rate of satisfaction at short term follow up.
- This data can provide guidance to patients suffering from TN when discussing treatment options.