Radiosurgery for Multiple Sclerosis-Related Trigeminal Neuralgia: Long-term Outcomes

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Disclosures

- None
Multiple Sclerosis (MS)-related Trigeminal Neuralgia (TN)

- Harder to manage than TN-1
- Radiosurgery = favorable for MS population
- Long-term pain control outcomes have not been described in MS-TN patients
Patient Selection and Recruitment

55 Patients with MS-TN 1998-2014

- 5 patients deceased

50 Surveys Mailed

- 30 Responses
- 20 No Response
- 12 phone interviews and chart review
- 8 unable to be contacted

42 patients for analysis
BNI Pain Score Outcome at Last Follow-up

Good Outcome: 35/42 (83%)  Median Follow-up: 6.5 years (3-19 years)
Pain Control from Index radiosurgery

n=42

Pain control at:
1 year: 69%
3 years: 29%
5 years: 22%
7 years: 13%

Median Recurrence: 16 months (1-84 months)
## Salvage Therapies

<table>
<thead>
<tr>
<th>Total</th>
<th>28 (67%)</th>
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<tbody>
<tr>
<td>Repeat SRS</td>
<td>18 (43%)</td>
</tr>
<tr>
<td>Rhizotomy</td>
<td>1 (2%)</td>
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<tr>
<td>MVD</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Repeat SRS + rhizotomy</td>
<td>5 (12%)</td>
</tr>
<tr>
<td>Repeat SRS + MVD</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>MVD + rhizotomy + repeat SRS</td>
<td>1 (2%)</td>
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</tbody>
</table>
Pain Control from Index Radiosurgery +/− One Salvage Radiosurgery

\[ n = 33 \]

Pain control at:
1 year: 92%
3 years: 72%
5 years: 52%
7 years: 46%
10 years: 17%

Median Recurrence: 78 months (1-96 months)
Strengths

• Longest follow-up period for MS-TN patients in the literature (minimum 3 years per patient)

• Equivalent to the largest cohort in the literature

Limitations

• Retrospective, single institution

• 8 of 50 patients (16%) were unable to be contacted
Summary

• The index radiosurgery offers good short-term pain control for MS-TN, but long-term pain control is rare

• If the index radiosurgery treatment fails, salvage radiosurgery appears to offer beneficial pain control

• When a multi-modal treatment strategy of pain medication, radiosurgery and rhizotomy/MVD are utilized, long-term outcomes appear favorable