Veith 2019

Clinical Effectiveness Of MOCA Versus RF For Symptomatic GSV Or SSV Reflux

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Disclosures

- None

Maradona Trial: MOCA vs RFA in the GSV Randomization Scheme

Only randomized 52% of total needed

Maradona Trial Results: Complications

<table>
<thead>
<tr>
<th>Event</th>
<th>MOCA</th>
<th>RFA</th>
<th>P-value</th>
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</thead>
<tbody>
<tr>
<td>Total 30-day complications</td>
<td>10</td>
<td>12</td>
<td>0.30</td>
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<tr>
<td>Incision</td>
<td>12</td>
<td>12</td>
<td>0.47</td>
</tr>
<tr>
<td>Superficial venous injuries</td>
<td>12</td>
<td>8</td>
<td>0.32</td>
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<tr>
<td>Hemorrhage</td>
<td>2</td>
<td>2</td>
<td>0.61</td>
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<tr>
<td>Saphenous neuritis</td>
<td>3</td>
<td>2</td>
<td>0.52</td>
</tr>
<tr>
<td>Pain &gt;1 week</td>
<td>10</td>
<td>11</td>
<td>0.74</td>
</tr>
<tr>
<td>Immobilization</td>
<td>14</td>
<td>13</td>
<td>0.61</td>
</tr>
<tr>
<td>Wound breakdown</td>
<td>3</td>
<td>2</td>
<td>0.23</td>
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<tr>
<td>Other</td>
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<td></td>
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<tr>
<td>Clotting &amp; fever</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Local reaction</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other at other site</td>
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<td></td>
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</table>

Maradona Trial Results: Clinical and Anatomic Success Rates

- Anatomic Success
  - MOCA:
    - 1 year: 83%
    - 2 years: 80%
  - RFA:
    - 1 year: 94%
    - 2 years: 88%

Maradona Trial: Quality of Life Results

Figure 6: Changes in VAS (Visual Analogue Scale) for SSV reflux treated with MOCA vs RFA. MOCA, radiofrequency ablation; RFA, radiofrequency ablation.
Clinical effectiveness of MOCA versus RF for symptomatic Great or Small Saphenous Vein Reflux

Eddie Fernandez MD, Aditya Gupta MD, Sanjiv Lakhanpal MD, Peter J. Pappas MD

Results: Patients and Limbs in each treatment group

MOCA GSV (342/545)
MOCA SSV (44/652)
RF GSV (15,069/25,153)
RF SSV (1,450/20,877)

Methods

Data were prospectively collected in the Center for Vein Restoration’s (CVR) electronic medical record system (NexGen Healthcare Information System, Irvine, California) and retrospectively analyzed.

Patients were divided into the following treatment categories and stratified by CEAP class: MOCA GSV, MOCA SSV, RF GSV and RF SSV.

The revised venous clinical severity score (rVCSS) was utilized to determine CVD treatment effectiveness in patients who underwent RF and MOCA only in the GSV or SSV distributions. Patients with multiple treatment modalities were excluded from the analysis.

In addition, the CIVIQ 20 was utilized to assess quality of life pre and post intervention at six months.

All statistical analyses were performed utilizing Graphpad Prism 7 (GraphPad Software Inc, La Jolla, California). Treatment outcomes were assessed utilizing unpaired t-tests and two way analysis of variance.

Results: rVCSS for RF in the GSV and SSV

Results: rVCSS for MOCA in the GSV and SSV

Results: CIVIQ at six months
Conclusion

- Endothermal ablation is the gold standard to which all endovenous therapies are compared to.
- The Maradona trialists enrolled patients with C3 and C4 disease therefore their results are reflective of patients with severe CVI
  - RFA has a better anatomic closure rate compared to MOCA in the GSV in the Maradona trial.
  - No difference in QoL at one or two years despite anatomic closure rate differences. This may be a type II error due to under enrollment in the trial.
- CVR study looked at patients in all CEAP groups
  - RF did well regardless of CEAP class in both the GSV and SSV
  - MOCA did well in C2-C4. Not enough patients with C5 and C6 patients enrolled.
  - No difference in QoL at six months between RF and MOCA

Introduction

- Endovenous therapies for the management of chronic venous insufficiency are now the standard of care for the treatment of symptomatic varicose veins.
  - The current Gold Standard, to which all new therapies must be compared to, is thermal ablation with either Radiofrequency or Laser.
  - The major shortcoming of thermal ablations is the need for Tumescent Anesthesia.
- Mechanochemical, Cyanoacrylate Glue and Micronized Polidocanol foam are all non-thermal, non-tumescent technologies in the process of obtaining long-term outcomes data on effectiveness and durability.

Aims

To determine the effectiveness of MOCA compared to Radiofrequency Ablation in the Great and Small Saphenous Veins.

Results: rVCSS

- MOCA GSV vs RF GSV
- MOCA GSV One Month vs RF GSV
- RF GSV One Month vs RF GSV

Results: CIVIQ 20

- RF vs MOCA Patient Reported Outcomes CIVIQ All Six Months
Conclusions

1. At one month MOCA appears to be as effective as RF in the GSV across CEAP classes.

2. MOCA may not be as effective as RF in patients with C5 and C6 disease in the GSV and SSV distribution at one month as measured by rVCSS.

3. Patient reported outcomes (CIVIQ 20 surveys) at six months between treatment modalities are not significantly different.

4. MOCA in the SSV appears to be safe and effective. Further assessment and long term data of MOCA in the SSV distribution is required.