Online Supplemental Materials

**Online Supplemental Figure.** Indicate the MRI system upon which intracranial vessel wall scans are performed at your institution (choose all that apply) Respondents=212

![Bar chart showing MRI systems](chart1.png)

**Online Supplemental Figure.** Has the interaction with your vendor led to implementation of an effective intracranial vessel wall imaging protocol? (If yes, select the vendor below) (choose all that apply) Respondents=118

![Bar chart showing vendor interaction](chart2.png)
Online Supplemental Figure. How has your interaction been with the vendors in developing a protocol? (Answer all that apply) Respondents=142

Online Supplemental Figure. Was this protocol provided by (choose all that apply): Respondents=211
Online Supplemental Figure. What sequences do you employ as part of your intracranial vessel wall imaging protocol? (choose all that apply) Respondents=211

- T1W VWI: 88.6%
- Post-contrast T1-weighted VWI: 89.1%
- T2W VWI: 39.3%
- PDW VWI: 12.8%
- TOF MRA: 76.3%
- Contrast enhanced MRA: 36.5%
- Other (please specify): 6.6%

Online Supplemental Figure. If technical/expertise obstacles were overcome, would your institution pursue this technique? (only respond to this question if you do not perform intracranial VWI) Respondents=220

- Yes: 56.4%
- No: 6.4%
- Not sure: 37.3%
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>*1. Does your institution perform intracranial vessel wall MRI?</td>
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2. Indicate the MRI system upon which intracranial vessel wall scans are performed at your institution (choose all that apply)

- [ ] Siemens 1.5T
- [ ] Siemens 3T
- [ ] Philips 1.5T
- [ ] Philips 3T
- [ ] GE 1.5T
- [ ] GE 3T
- [ ] Other (please specify)

3. If your institution does perform intracranial vessel wall MRI, on average how often do you perform this technique?

- [ ] Only a handful of times ever
- [ ] Rarely (once every couple months)
- [ ] Occasionally (1-2 times per month)
- [ ] Consistently (once per week)
- [ ] Frequently (at least 2 times per week)
- [ ] Other (please specify)

4. Is intracranial vessel wall MRI clinically being performed as (answer all that apply)

- [ ] A stand alone exam ordered by clinicians
- [ ] An add-on to MRI stroke or MRA head exams ordered by clinicians
- [ ] An add-on from the protocoling radiologist
- [ ] A stand-alone exam protocolled by the radiologist from a different MRI study ordered from the clinicians
- [ ] An add-on from the technologist scanning the patient
- [ ] A standard component of routine clinical scans (ie all MRA head or all MRI stroke protocols)
- [ ] Other (please specify)
5. For what primary purpose does your institution perform intracranial vessel wall imaging? (Choose all that apply)

- Research
- Atherosclerosis characterization for culprit plaque
- Aneurysm characterization for risk of rupture or targeting culprit aneurysm
- Vasculopathy differentiation
- Elucidation of cause of cryptogenic stroke
- Elucidation of cause of cryptogenic intracranial hemorrhage
- Elucidation of cause of patient symptoms
- Other (please specify)

6. Does your institution have a research agreement with an MRI vendor?

- Yes
- No
- Not sure

7. If yes to question 6, has your institution sought help from the vendor to develop your intracranial vessel wall protocol?

- Yes
- No
- Not sure

8. Has the interaction with your vendor led to implementation of an effective intracranial vessel wall imaging protocol? (If yes, select the vendor below) (choose all that apply)

- GE
- Philips
- Siemens
- Other (please specify)
9. How has your interaction been with the vendors in developing a protocol? (Answer all that apply)
   - Excellent, they provided a solution that has worked for us
   - There were initial difficulties but now we have a solution
   - We are still looking for an adequate solution
   - Vendor contribution has been somewhat limited
   - Other (please specify)

10. Does your institution perform 2D, 3D or combined intracranial vessel wall imaging protocols?
   - 2D only
   - 3D only
   - Combined protocols

11. Why do you use the specific protocol that you use? (2D, 3D or both) (choose all that apply)
   - Technical limitations/availability
   - Based on guidance from the literature, lectures attended or study groups
   - Time constraints
   - Other (please specify)

12. Was this protocol provided by (choose all that apply):
   - The vendor
   - Developed in-house
   - Provided from another institution
   - Not sure
   - Other (please specify)
13. What sequences do you employ as part of your intracranial vessel wall imaging protocol? (choose all that apply)

☐ T1-weighted vessel wall imaging (VWI) sequence
☐ Post-contrast T1-weighted VWI
☐ T2-weighted VWI
☐ Proton density weighted VWI
☐ TOF MRA
☐ Contrast enhanced MRA
☐ Other (please specify)

14. If your institution does not perform intracranial vessel wall MRI (only respond to this question if you do not use intracranial VWI), what barriers does your institution face for implementation? (choose all that apply)

☐ Lack of clinician interest
☐ Lack of radiologist time/interest to provide input for protocol development
☐ Lack of vendor/technical support to develop protocols
☐ Limited personal knowledge of applications/value
☐ Limited expertise of interpretation
☐ Long scan times limit clinical feasibility at your institution
☐ Patient population at your institution would not benefit from this technique
☐ Lack of standardized protocols
☐ Other (please specify)

15. If technical/expertise obstacles were overcome, would your institution pursue this technique? (only respond to this question if you do not perform intracranial VWI)

☐ Yes
☐ No
☐ Not sure
16. Have your clinicians approached the radiologists in your group in regards to performing intracranial vessel wall imaging? If so, which clinician groups? (choose all that apply)

- Rheumatology
- Stroke neurology
- Neurosurgery
- Psychiatry
- No clinical services have approached radiology about development of IVW
- Unsure
- Other (please specify)

17. In your opinion, has intracranial vessel wall imaging influenced patient management at your institution?

- Yes
- No
- Not sure