Online Supplementary Material

Supplementary Table 1. Participant factors favoring EVT, stratified by patients with mild yet disabling deficits with respect to their professions vs. patients with mild deficits without described profession. No significant interactions between the effect of profession and each of the respondent variable subgroups on EVT decision-making were observed (*Supplementary Table 3*).

	Profession, yes	Profession, no	Risk Ratio (95%CI)
Participant Characteristics, n (%)			
Speciality			
Interventionalists	622 (59.1)	345 (43.7)	1.35 (1.23-1.48)*
Non-interventionalists	211 (51.2)	105 (34.0)	1.51 (1.26-1.81)*
Hospital type			
Teaching	765 (56.8)	407 (40.3)	1.41 (1.29-1.54)*
Non-Teaching	68 (58.6)	43 (49.4)	1.19 (0.91-1.54)
24/7 stroke EVT coverage			
No	83 (61.0)	42 (41.2)	1.48 (1.13-1.94)*
Yes	750 (56.5)	408 (41.0)	1.38 (1.26-1.51)*
Gender			
Male	692 (56.2)	387 (41.9)	1.34 (1.22-1.47)*
Female	141 (63.0)	63 (37.5)	1.68 (1.35-2.09)*
Age (years)			
< 40 years	239 (59.2)	128 (42.2)	1.40 (1.20-1.63)*
40 – 50 years	335 (55.5)	197 (43.5)	1.28 (1.12-1.45)*
51 – 60 years	171 (53.4)	84 (35.0)	1.53 (1.25-1.87)*
> 60 years	88 (64.7)	41 (40.2)	1.61 (1.23-2.10)*
Career stage			
In training	31 (51.2)	16 (35.6)	1.45 (0.91-2.31)
Board certified < 5 years	108 (61.4)	64 (48.5)	1.27 (1.02-1.56)*

Board certified 5-10 years	183 (58.0)	106 (44.7)	1.29 (1.09-1.53)*
Board certified > 10 years	511 (56.0)	264 (38.6)	1.45 (1.30-1.62)*
Experience in INR (years)			
0 – 5 years	121 (59.3)	61 (39.9)	1.49 (1.19-1.86)*
5 – 10 years	169 (52.2)	94 (38.7)	1.35 (1.12-1.63)*
10 – 15 years	186 (60.4)	108 (46.8)	1.29 (1.10-1.52)*
15 - 20 years	131 (61.8)	75 (47.2)	1.31 (1.08-1.59)*
> 20 years	113 (54.3)	53 (34.0)	1.60 (1.24-2.06)*
NA	113 (54.3)	59 (37.8)	1.44 (1.13-1.82)*
Annual stroke treatment volume (center)			
< 50	105 (55.9)	55 (39.0)	1.43 (1.12-1.83)*
50 – 100	191 (62.0)	102 (44.2)	1.40 (1.19-1.66)*
100 – 200	291 (49.8)	163 (37.2)	1.34 (1.16-1.55)*
> 200	246 (64.1)	130 (45.1)	1.42 (1.22-1.65)*
Annual stroke treatment volume (person)			
< 10	38 (55.9)	21 (41.2)	1.36 (0.92-2.01)
10 – 50	370 (52.3)	201 (37.9)	1.38 (1.21-1.57)*
50 – 100	231 (60.2)	136 (47.2)	1.27 (1.10-1.48)*
> 100	74 (80.4)	34 (49.3)	1.63 (1.26-2.12)*
NA	120 (56.6)	58 (36.5)	1.55 (1.22-1.97)*

EVT: Endovascular therapy
INR: Neurointervention
NA: Not applicable
* Significant associations ($p < 0.001$)

Supplementary Table 2. Demographic characteristics of the participating physicians.

Specialty – *n (%)*	
Interventional Neuroradiologist	170 (46.5)
Interventional Radiologists	18 (4.9)

Interventional Neurologist	36 (9.8)
Neurologist	97 (26.5)
Neurosurgeons	39 (10.7)
Other	6 (1.6)
Geographic region – *n (%)*	
North America	95 (26.0)
Europe	179 (48.9)
Asia & Pacific & Africa	79 (21.6)
South America	13 (3.6)
Hospital Setting – *n (%)*	
Teaching	337 (92.1)
Non-teaching	29 (7.9)
Physician gender – *n (%)*	
Female	56 (15.3)
Male	308 (84.2)
Do not wish to declare	2 (0.6)
Age - *n (%)*	
Under 30 years	5 (1.4)
31 – 40 years	96 (26.2)
41 – 50 years	151 (41.3)
51 – 60 years	80 (21.9)
Over 60 years	34 (9.3)
Experience in vascular neurointerventions - *n (%)*	
0 - 5 years	51 (13.9)

5 -10 years	81 (22.1)
10 – 15 years	77 (21.0)
15 – 20 years	53 (14.5)
More than 20 years	52 (14.2)
Not applicable	52 (14.2)
Annual center thrombectomy volume – *median range*	100-200
Annual personal thrombectomy volume – *median range*	10-50
Number of interventionalists covering INR call – *median (IQR)*	3 (3-5)
Availability of 24/7 coverage for EVT - *n (%)*	
Yes	332 (90.7)
No	34 (9.3)

IQR: Interquartile range
INR: Neurointervention
EVT: Endovascular therapy

Supplementary Table 3. Results of subgroup interaction analyses for profession and each of the respondent variable subgroups on EVT decision-making.

Variable	P-Value
Speciality	
Interventionalists	Ref.
Non-interventionalists	0.299
Hospital type	
Teaching	Ref.
Non-teaching	0.221
24/7 stroke EVT coverage	
No	Ref.
Yes	0.615
Gender	

Male	Ref.
Female	0.064
Age (years)	
> 40	Ref.
40 – 50	0.360
51 – 60	0.504
> 60	0.377
Career stage	
In Training	Ref.
Board certified < 5 years	0.595
Board certified 5 – 10 years	0.647
Board certified > 10 years	0.997
Experience in INR (years)	
> 5	Ref.
5 – 10	0.513
10 – 15	0.321
15 – 20	0.404
> 20	0.676
NA	0.833
Annual stroke treatment volume (center)	
> 50	Ref.
50 – 100	0.898
100 – 200	0.643
> 200	0.951
Annual stroke treatment volume (person)	
> 10	Ref.
10 – 50	0.935
50 – 100	0.766
> 100	0.440
NA	0.565

EVT: Endovascular therapy
INR: Neurointervention

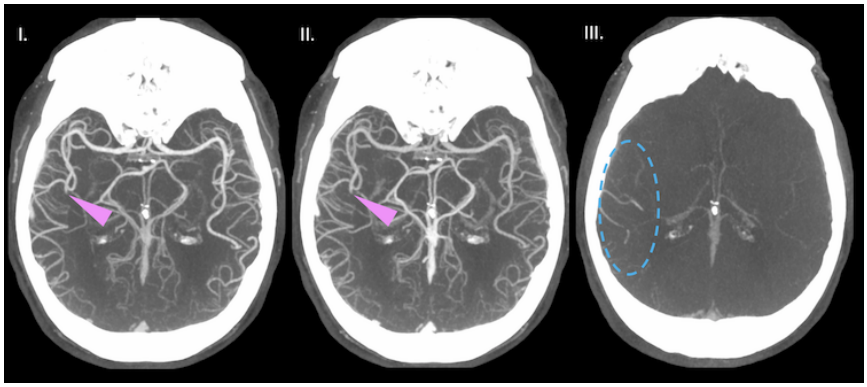
NA: Not applicable

MeVO-FRONTIERS - Survey scenarios included in the study

Case 1/7

Q1.5 Case 1, scenario 5:
86-year-old male, otherwise healthy, **NIHSS 3** with left arm drift and hemineglect. Onset-to-CT time 2 hours 10 minutes.
ASPECTS 10, core (CBF <30%) volume is 7 ml. Patient is **not eligible for tPA**.

Q1.5image



Q1.5.1 Should this patient with MeVO be **treated with EVT**?

- Yes, the patient should be taken for EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

Q1.5.1ii If no, **why**? (what is your top reason)

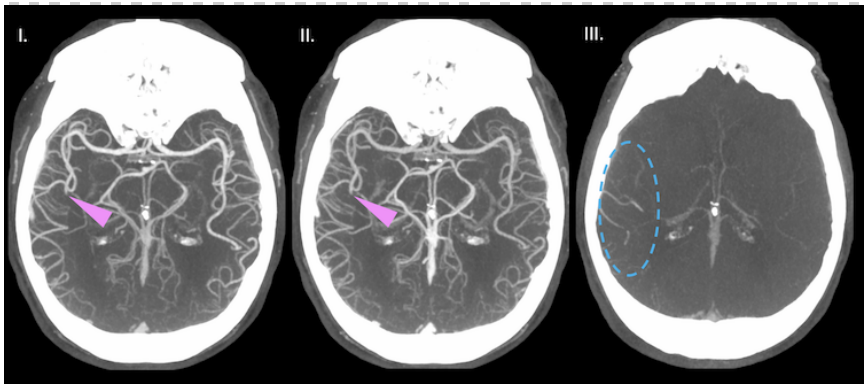
- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q1.5.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?

- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q1.6 Case 1, scenario 6:
56-year-old male, professional piano player, NIHSS 3 with left arm drift and hemineglect. Onset-to-CT time 2 hours 10 minutes.
ASPECTS 10, core (CBF <30%) volume is 7 ml. Patient is **not eligible for tPA**.

Q1.6image



Q1.6.1 Should this patient with MeVO be **treated with EVT**?

- Yes, the patient should be taken for EVT immediately
- No, this patient should not be treated with EVT
- The patient should be treated only if his neurological deficit worsens

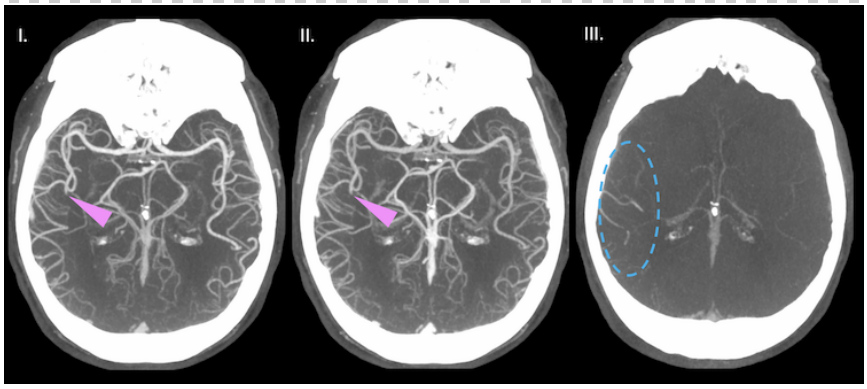
Q1.6.1ii If no, **why**? (what is your top reason)

- Occlusion too distal
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence for such cases
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q1.6.2 If the patient would be eligible for a **trial which randomizes MevO patients between EVT and no EVT**, would you be willing to randomize?

- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q1.7image



Q1.7 Case 1, all scenarios:
If you were to treat this MeVO, what would be your preferred **first-line approach**?

- Direct contact aspiration
- Stent-retriever
- Combined stent-retriever and contact aspiration
- Intra-arterial thrombolytics
- Other (specify) _____
- Not applicable (I am not an interventionist)
- I would not treat any of the presented scenarios

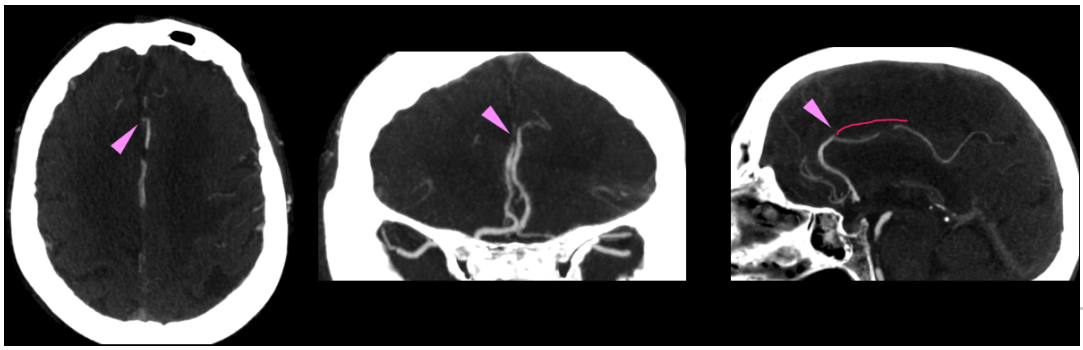
Q1.8 Which **anesthesia** approach would you use in this MeVO?

- I do all EVTs (LVO and MeVO) under general anesthesia
- I do all MeVOs under general anesthesia
- If this patient was even slightly uncooperative (lower threshold than for LVO), I would use general anesthesia
- If this patient was uncooperative (same threshold as for LVO), I would use general anesthesia
- I do all EVTs (including MeVO) under local anesthesia/conscious sedation (5)
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient is even slightly uncooperative (lower threshold than for LVO)
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient is uncooperative (same threshold as for LVO)

Case 2/7

Q2.5 Case 2, Scenario 5:
79-year-old male, otherwise healthy, **NIHSS 4** with complete plegia of the left leg. Onset-to-CT time 2 hours 15 minutes. Core (CBF <30%) volume is 9 ml, penumbra (Tmax >6s) 30 ml. Patient is **not eligible for tPA**.

Q2.5image



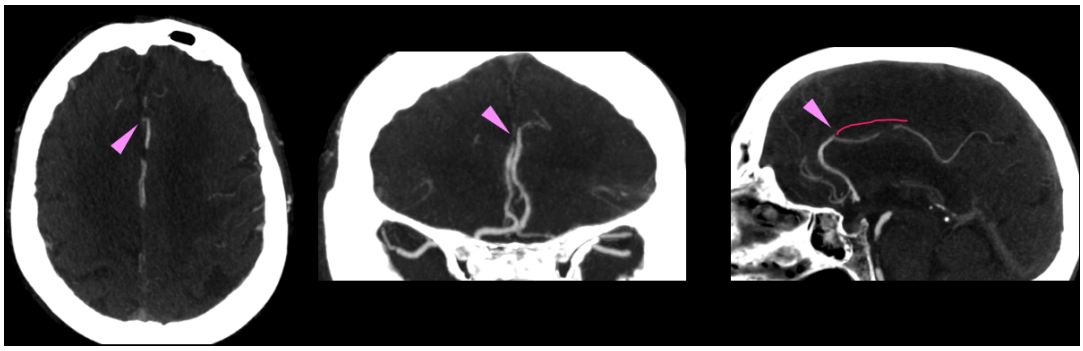
Q2.5.1 Should this patient with MeVO be treated with EVT?
- Yes, the patient should be taken to EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

Q2.5.1ii If no, **why**? (what is your top reason)
- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q2.5.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?
- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q2.6 Case 2, Scenario 6:
53-year-old male, marathon runner, NIHSS 4 with mild left leg and mild sensory loss. Onset-to-CT time 2 hours 15 minutes. Core (CBF <30%) volume is 9 ml, penumbra (Tmax >6s) 30ml. Patient is **not eligible for tPA**.

Q2.6image



Q2.6.1 Should this patient with MeVO be treated with EVT?

- Yes, the patient should be taken to EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

Q2.6.1ii If no, **why**? (what is your top reason)

- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q2.6.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?

- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q2.7image

Q2.7 Case 3: If you were to treat this MeVO, what would be your preferred **first-line approach**?

- Direct contact aspiration
- Stent-retriever
- Combined stent-retriever and contact aspiration
- Intra-arterial thrombolytics
- Other (specify) _____
- Not applicable (I am not an interventionist)
- I would not treat any of the presented scenarios

Q2.8 Which **anesthesia** approach would you use in this MeVO?

- I do all EVTs (LVO and MeVO) under general anesthesia
- I do all MeVOs under general anesthesia

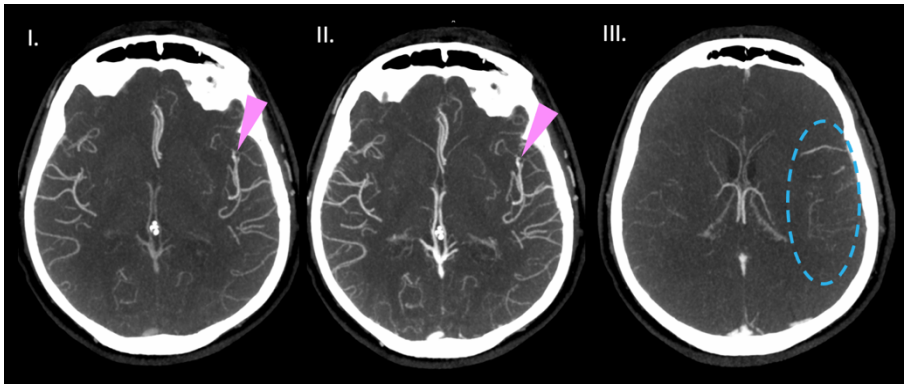
- If this patient was even slightly uncooperative (lower threshold than for LVO), I would use general anesthesia
- If this patient was uncooperative (same threshold as for LVO), I would use general anesthesia
- I do all EVTs (including MeVO) under local anesthesia/conscious sedation
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient was even slightly uncooperative (lower threshold than for LVO)
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient is uncooperative (same threshold as for LVO)

Case 2/7

Q3.5 Case 3, scenario 5:

58-year-old male, English teacher, NIHSS 4 with expressive aphasia and right facial palsy. Onset-to-CT time 90 minutes.
ASPECTS 10, core (CBF <30%) volume is 5 ml. Patient is **not eligible for tPA**.

Q3.5image



Q3.5.1 Should this patient with MeVO be **treated with EVT**?
- Yes, the patient should be taken to EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

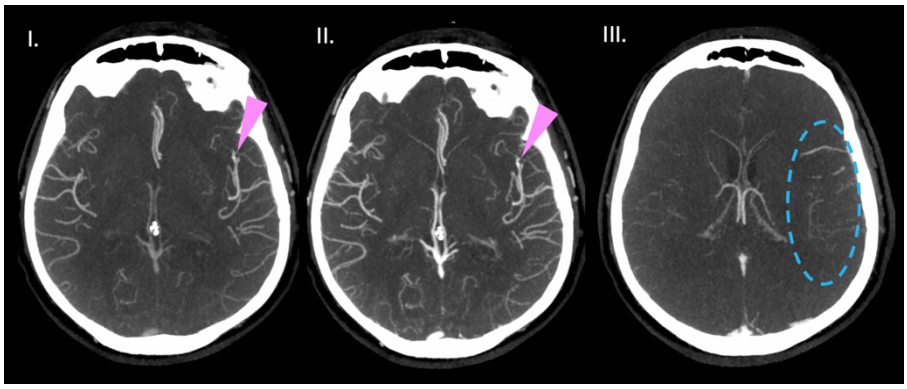
Q3.5.1.ii If no, **why**? (what is your top reason)
- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence for such cases
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q3.5.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?
- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q3.6 Case 3, scenario 6:

80-year-old male, NIHSS 4 with expressive aphasia and right facial palsy. Onset-to-CT time 90 minutes.
ASPECTS 10, core (CBF <30%) volume is 5 ml. Patient is **not eligible for tPA**.

Q3.6image



Q3.6.1 Should this patient with MeVO be **treated with EVT**?

- Yes, the patient should be taken to EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

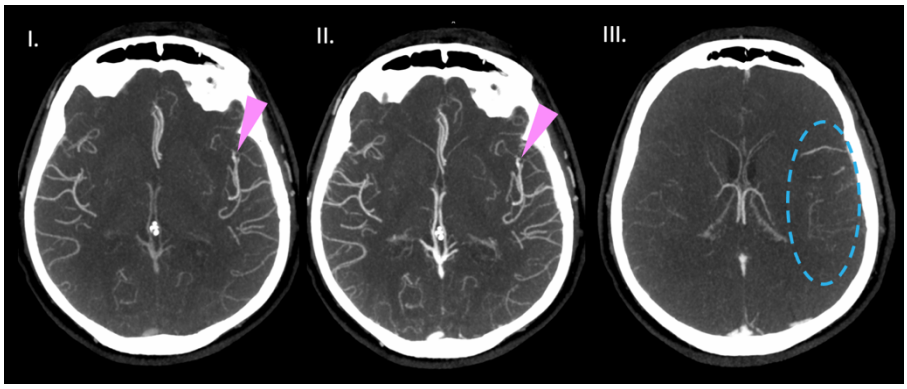
Q3.6.1.ii If no, **why**? (what is your top reason)

- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence for such cases
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q3.6.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?

- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q3.7image



Q3.7 Case 5: If you were to treat this MeVO, what would be your preferred **first-line approach**?

- Direct contact aspiration
- Stent-retriever
- Combined stent-retriever and contact aspiration
- Intra-arterial thrombolytics
- Other (specify) _____
- Not applicable (I am not an interventionist)
- I would not treat any of the presented scenarios

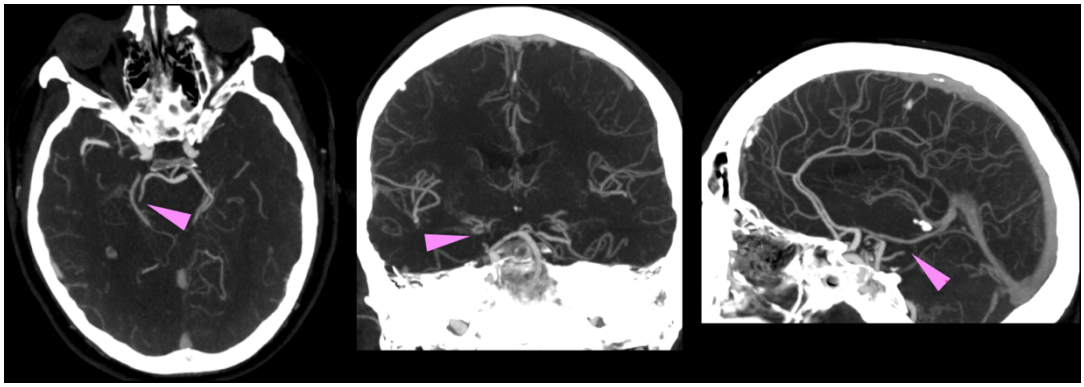
Q3.8 Which **anesthesia** approach would you use in this MeVO?

- I do all EVTs (LVO and MeVO) under general anesthesia
- I do all MeVOs under general anesthesia
- If this patient was even slightly uncooperative (lower threshold than for LVO), I would use general anesthesia
- If this patient was uncooperative (same threshold as for LVO), I would use general anesthesia
- I do all EVTs (including MeVO) under local anesthesia/conscious sedation
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient was even slightly uncooperative (lower threshold than for LVO)
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient is uncooperative (same threshold as for LVO)

Q4 **Case 4/7**

Q4.5 Case 4, Scenario 5:
52-year-old male, truck driver, **NIHSS 3** with mild left arm weakness and left homonymous hemianopia. Onset-to-CT time 1 hour 30 minutes. Core (CBF <30%) volume is 4 ml, penumbra (Tmax >6s) 24ml. Patient is **not eligible for tPA**.

Q4.5image

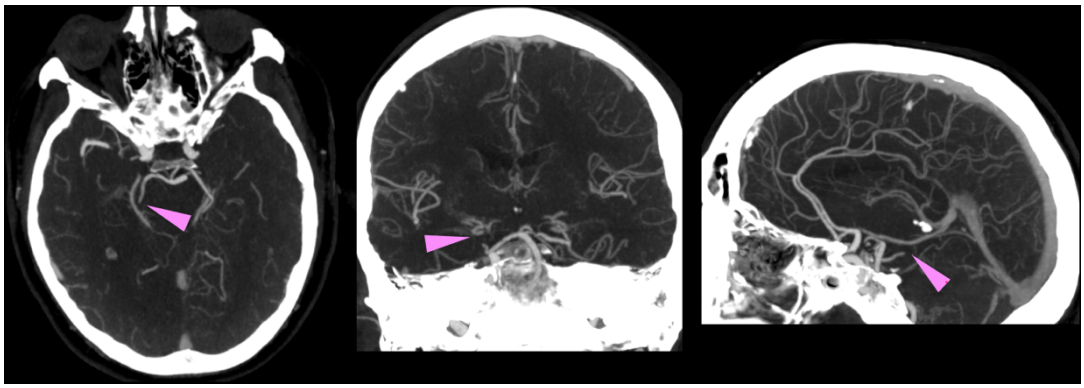


Q4.5.1 Should this patient with MeVO be **treated with EVT**?
- Yes, the patient should be taken to EVT immediately
- No, this patient should not be treated with EVT
- The patient should only be treated if his neurological deficit worsens

Q4.5.1ii If no, **why**? (what is your top reason)
- Occlusion too distal to be safely accessible
- Expected benefits too small
- Insufficient support in guidelines/scientific evidence for such cases
- Insufficient resources to treat such cases with EVT in our institution
- Other (specify) _____

Q4.5.2 If the patient would be eligible for a **trial which randomizes MeVO patients between EVT and no EVT**, would you be willing to randomize?
- Yes
- No, because of practical reasons (e.g. no experience of our team/center to participate in a trial, etc.)
- No, because I have no equipoise (I already know the answer to the question)

Q4.7image



Q4.7 Case 4: If you were to treat this MeVO, what would be your preferred **first-line approach**?

- Direct contact aspiration
- Stent-retriever
- Combined stent-retriever and contact aspiration
- Intra-arterial thrombolytics
- Other (specify) _____
- Not applicable (I am not an interventionist)
- I would not treat any of the presented scenarios

Q4.8 Which **anesthesia** approach would you use in this MeVO?

- I do all EVTs (LVO and MeVO) under general anesthesia
- I do all MeVOs under general anesthesia
- If this patient was even slightly uncooperative (lower threshold than for LVO), I would use general anesthesia
- If this patient was uncooperative (same threshold as for LVO), I would use general anesthesia
- I do all EVTs (including MeVO) under local anesthesia/conscious sedation
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient was even slightly uncooperative (lower threshold than for LVO)
- I would start under local anesthesia/conscious sedation but convert to general anesthesia if the patient is uncooperative (same threshold as for LVO)

Q8 **Final Question: Endovascular Tools Availability**

Q8.1 Do you think that **appropriate tools/devices exist** to treat the presented MeVOs?

- Yes
- No
- Yes, but there is substantial scope for improvement/further development

Q8.1txt What are the **features of the endovascular tools** which you think would be favorable for pursuing MeVOs in your practice?

_____

Q8.2 Do you have access to the currently **best available tools/devices at your institution** to treat the presented MeVOs?

- Yes
- No
- Not in all cases

Q8.2txt **What does need to happen** or be put in place for you to have access to those tools?

_____

Q8.3 This is the end of the survey. Thank you very much! If you have any further remarks, you can leave them here:

_____

_____

_____

_____

_____