

Online Resource 1

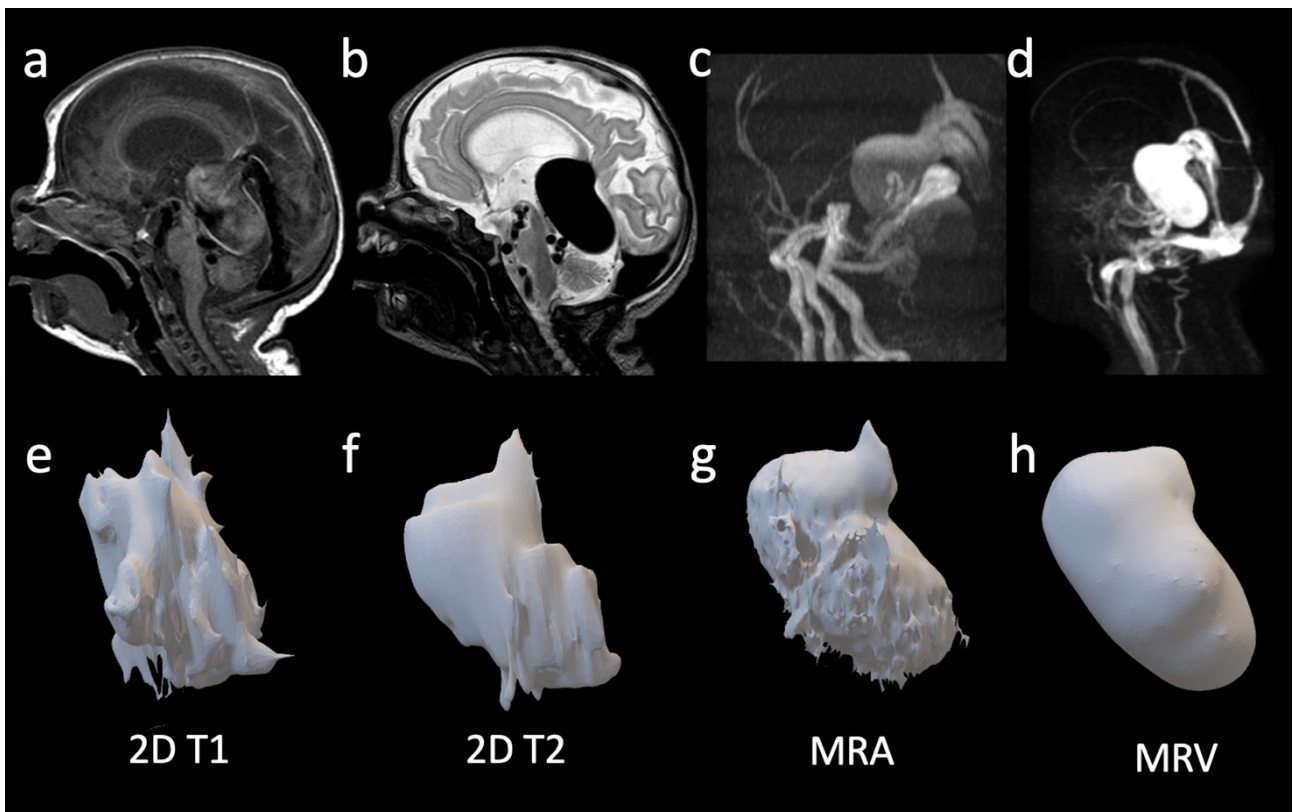
Supplementary Table 1. Magnetic resonance imaging parameters for the study protocol

	T1-weighted imaging				T2-weighted imaging		Phase-contrast venous MRA		TOF arterial MRA	
Acquisition										
type	2D		3D		2D		3D		3D	
Manufacturer	Philips		Philips		Philips		Philips		Philips	
Tesla	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3
Repetition										
time	800	700	420	600	6000	6000	14	11	17	23
Echo time	12	14	18	25	140	160	6.1	7	6.9	4
Flip angle	70	70	80	90	90	90	10	10	20	18
Slice thickness	4	2	1	1	3	2	1.6	1.6	1.4	1.2
Acquisition matrix	230 x 200 x 163		256 x 196 x 256		196 x 196 x 512		360 x 289 x 144		268 x 207 x 400	
Voxel										
dimension	1	1	1	1	0.4	0.4	1.4	0.9	0.6	0.3
Spacing										
between slices	3.3	2.2	1	0.5	3.3	2.2	0.8	0.8	0.7	0.6
							PC velocity		PC velocity	
Other							15cm/s		13cm/s	

Legend: MRA, Magnetic resonance angiography; PC, phase contrast

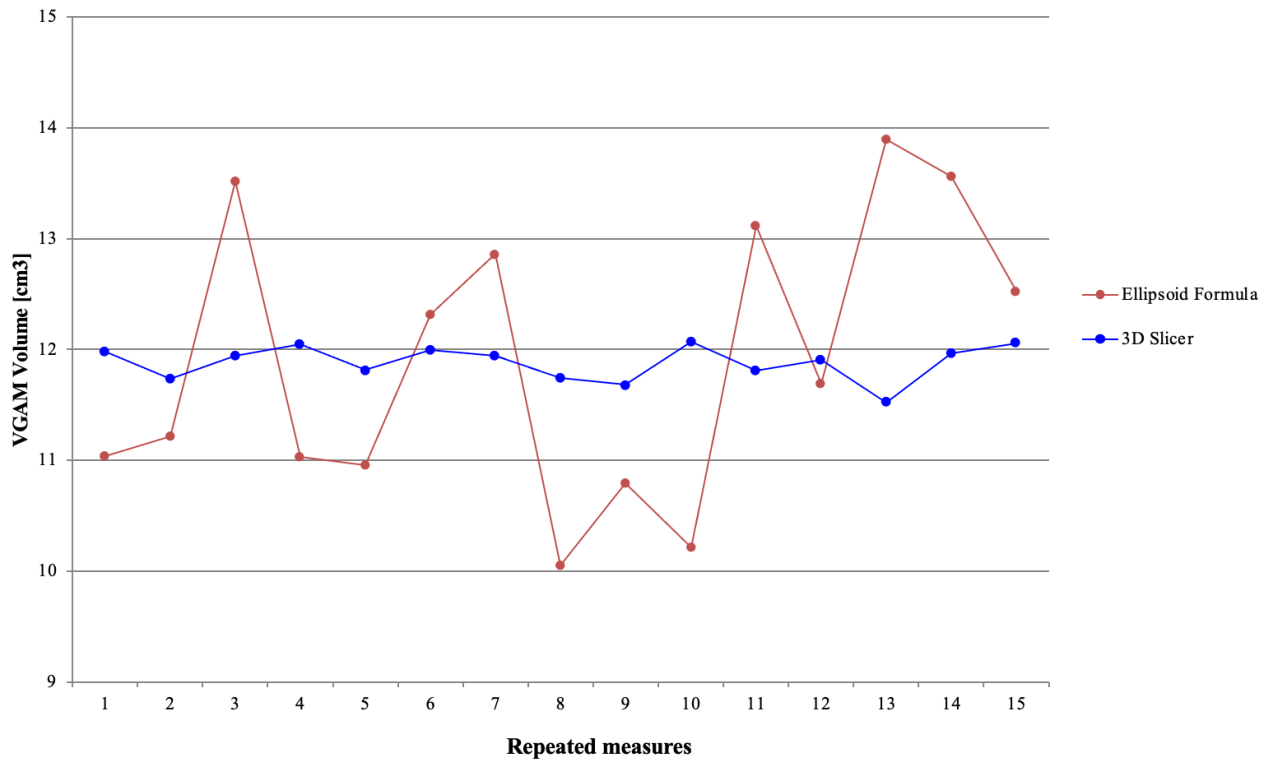
Online Resource 2

Supplementary Figure 1. 3D slicer segmentation of the VGAM pouch using four MRI sequences of a neonatal case with VGAM. Sagittal T1-weighted (a), T2-weighted (b), arterial TOF MR angiography (c) and venous phase-contrast MR angiography (d) images with corresponding 3D segmentation of the VGAM pouch (e-h). Note that the best results are provided by the venous MRA images.



Online Resource 3

Supplementary Figure 2. Graph showing results of repeated measures of the VGAM pouch volume for the two investigated methods performed by one Reader.



Online Resource 4

Supplementary Table 2. Description of the POPC (Paediatric Overall Performance Category) scale items

POPC category	Description
1. Normal	Performs at age-appropriate level in daily living activities. Medical or physical problems do not interfere with normal activity.
2. Mild disability	Mild medical or physical problems causing minor limitations that do not interfere with normal life (e.g., asthma). Pre-school child: may present disabilities compatible with future independent life (e.g., single amputation) and is able to perform over 75% of age-appropriate daily living activities.
3. Moderate disability	Medical or physical problems interfere with normal activity. Pre-school child: unable to perform some daily living activities. School-age child: able to perform multiple daily living activities but presents physical disability (e.g., cannot participate in sports competitions).
4. Severe disability	Pre-school child: unable to perform most daily living activities. Pre-school child: dependent for most daily living activities.
5. Coma/vegetative state	Unconscious. Unaware. Unable to interact verbally or cognitively with the environment.
6. Brain death	Brain death

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Supplementary Table 3. Medical treatment and intensive care support

Pre embolization (n=39)	yes (%)	no (%)
Epinephrine	18 (46)	21 (54)
Milrinone	18 (46)	21 (54)
Levosimendan	3 (8)	36 (92)
PGE1	5 (13)	34 (87)
Diuretic	18 (46)	21 (54)