

PROTOCOL: MRV BRAIN-HEAD WWO/CEREBRAL VENOGRAM WWO/VENOUS MRA OF HEAD WWO

CLINICAL INDICATIONS/ rule out dural venous sinus thrombosis, venous infarction
HISTORY:

SCAN ORDER	PLANE	IMAGE CONTRAST/ WEIGHTING	MODE	PULSE SEQ	COVERAGE	TR RANGE	TE RANGE	TI	FLIP ANGLE	THICKNESS/ GAP (mm)	FOV (cm)	Max Pixel (mm) x Ph	Fr Freq Axis	SEND TO PACS	Max scan time (target)
1	SAG	PC LOC	2D	PC	1 SLICE TO COVER SUPERIOR SAGITTAL SINUS VENC=20CM/S	MIN	MIN		20-30	60/0	24	1.25X1.25	SI	COLLAPSE	3:00
2	COR	TOF MRA	2D	TOF	COVER ENTIRE SKULL	MIN	MIN	INFERIOR SAT	60	2/OVLP	18	1.2X1.2	SI	*COLLAPSE	5:30
3+C	SAG	T1	3D	MPRAGE/ BRAVO	COVER ENTIRE HEAD INCLUDING EARS	VARIES BY SCANNER				1/OVLP	24-25	1.0X1.0	PA	FULL SERIES+ AX/COR 1X1 MPR	4:55

***POST PROCESSING*: IF NOT AUTOGENERATED (SIEMENS) 3 PLANES OF FULL-VOLUME PROJECTED MIP: AP, LATERAL, CAUDOCRANIAL, AND 3 PLANES OF THICK (2D) SLIDING-SLAB MIPS (OBL. AX-PARALLEL TO ORBITAL ROOF/OBL. COR-PARALLEL TO BASILAR ARTERY/SAG) USING MIP RENDERING ALGORITHM (NEVER AVERAGE, MPR, OR SSD). SEE BELOW FOR DETAILS.**

USE SERIES 2 AS SOURCE DATA FOR THESE MPRs & MIPS	AP	VOLUME MIP	3D												
	LAT	VOLUME MIP	3D												
	CAUDO- CRANIAL	VOLUME MIP	3D												
	AX	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	20				
	COR	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	18				
	SAG	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	22				
	SPIN	VOLUME MIP	3D		COVER 180+ DEGREES										
	TUMBLE	VOLUME MIP	3D		COVER 180+ DEGREES										
USE SERIES 4 AS SOURCE DATA FOR THESE MPRs & MIPS	AP	VOLUME MIP	3D											GENERATE FROM SUBTRACTED SERIES	
	LAT	VOLUME MIP	3D											GENERATE FROM SUBTRACTED SERIES	
	CAUDO- CRANIAL	VOLUME MIP	3D											GENERATE FROM SUBTRACTED SERIES	
	AX	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	20			GENERATE FROM SOURCE SERIES	
	COR	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	18			GENERATE FROM SOURCE SERIES	
	SAG	THICK MIP	2D		COVER ENTIRE SKULL					5-7/OVLP 3-5	22			GENERATE FROM SOURCE SERIES	
	SPIN	VOLUME MIP	3D		COVER 180+ DEGREES									GENERATE FROM SUBTRACTED SERIES	
	TUMBLE	VOLUME MIP	3D		COVER 180+ DEGREES									GENERATE FROM SUBTRACTED SERIES	
AX	MPR	2D		COVER ENTIRE SKULL									GENERATE FROM SOURCE SERIES		