

MR Orbits

Last Updated: 2/21/2020

Name	Plane	Sequence	Slice	Gap	FOV	Scan Range
3-Plane Localizer	Ax, Sag, Cor					
SAG T1	Sagittal	T1 FLAIR	4 mm	0.4 mm	21-25 cm	Scalp to Scalp
AX FLAIR	Axial	T2 FLAIR	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX T1 ORBIT	Axial	T1 FSE	3 mm	0.3 mm	15 cm	Inferior frontal lobe to maxillary sinus
COR T1 ORBIT	Coronal	T1 FSE	3 mm	0.3 mm	15 cm	Globe to Brainstem
AX STIR ORBIT	Axial	T2 STIR	3 mm	0.3 mm	15 cm	Inferior frontal lobe to maxillary sinus
COR STIR ORBIT	Coronal	T2 STIR	3 mm	0.3 mm	15 cm	Globe to Brainstem
INJECT CONTRAST						
AX T1 POST	Axial	T1 FLAIR or FSE	4 mm	0.4 mm	21-25 cm	Vertex to Odontoid
AX T1 FS ORBIT POST	Axial	T1 FS FSE	3 mm	0.3 mm	15 cm	Inferior frontal lobe to maxillary sinus
COR T1 FS ORBIT POST	Coronal	T1 FS FSE	3 mm	0.3 mm	15 cm	Globe to Brainstem

Notes:

- If order as brain and orbits include: Ax DWI, T1, T2 and GRE sequences of whole brain with slice/gap of 4 mm/0.4 mm
- 3 min delay between injection of contrast and scanning.
- Contrast type –per site. Dose- 0.2ml/kg.
- May use Dixon technique for fat suppression- Dixon T2 water only for STIR, Dixon T1 fat only post for T1 FS post. (GE-IDEAL or FLEX, Siemens/Philips- mDixon)

- Small FOV orbit sequences oriented (see below)
- Use ARC/GRAPPA if available for parallel imaging to reduced scan times.

Images:

- AXIAL Orbit- Plan on sagittal angle parallel to plane of the optic nerve, and coronal plane in plane with both optic nerves (see Figures 1, 2, 3).
- CORONAL Orbit- Plan on axial, plane parallel to lenses, covering from globes to brainstem (see Figures 4, 5, 6).

Figure 1:

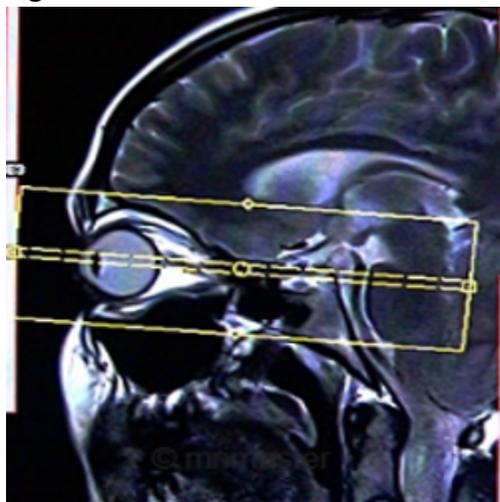


Figure 3:

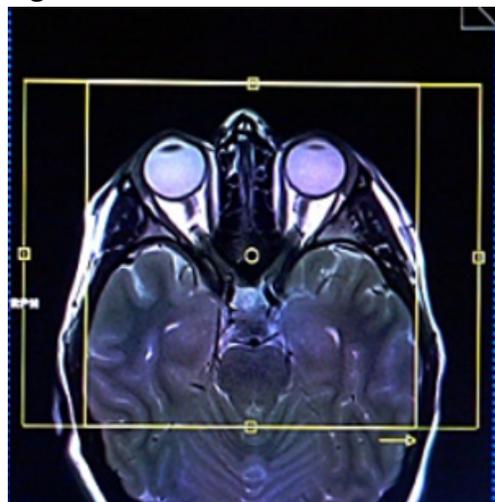


Figure 2:

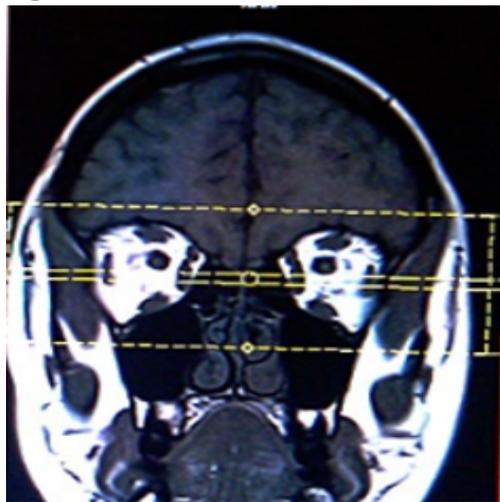


Figure 4:

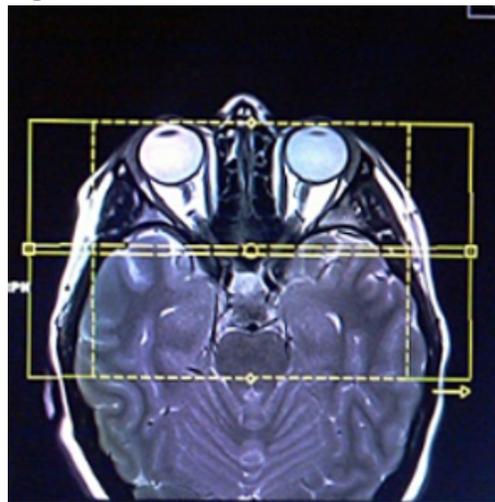


Figure 5:

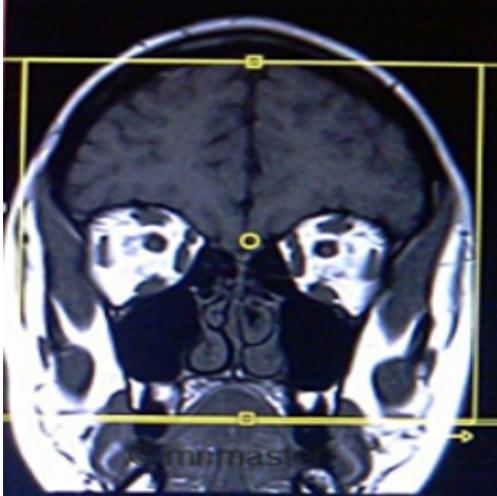


Figure 6:

