

SUMMARY AND CONCLUSION

The eye and globe comprise a unique and complex region of the nervous system, which represents a challenge to the ophthalmologist because of its high specialized anatomy and pathology.

Orbital lesions were classified according to the anatomical location into: ocular, extraconal, intraconal and conal lesions.

Global lesions were classified according to the etiology into: congenital, traumatic, inflammatory, neoplastic and vascular lesions.

Recent imaging modalities are important in diagnosis, characterization and help in treatment global lesions.

MRI is superior to CT in cases of global lesions as it gives better characterization of the lesion and more information about the extension of the tumor especially intracranially and the involved structures as optic nerve. MRA is a complimentary examination to MRI and can be very helpful in some lesions as carotid-cavernous fistula, it demonstrates the engorged superior ophthalmic vein and cavernous sinus.

MRI signal intensity on T1, T2 and STIR images can help in determination the soft tissue component of the lesions especially with contrast enhancement. For example, in patients with en plaque

meningiomas, CT can detect very well the hyperostotic changes of the bones and may not detect the soft tissue component even after contrast administration, while MRI with gadolinium enhancement is the examination of choice for detection of the soft tissue component.

CT is the modality of choice in cases of trauma, as it is easy and fast. It also shows the fracture lines well and can detect retrobulbar haematomas. It is recommended to start with CT examination in suspected cases of bony lesions (as small lesions may be missed on MRI alone) and in presence of calcification.

This work aims to light on the role of magnetic resonance imaging in patients with global lesions as regards the exact site and the extension of the lesions as well as attempting to define their tissue characterization.