Inflammatory and granulomatous lesions of the orbit

May 19, 2020: Burçe Özgen Mocan, Chicago/US

Dr. Burçe Özgen Mocan

Dr. Ozgen is a neuroradiologist at the University of Illinois at Chicago. She received her MD degree and completed her residency at the Hacettepe University in Ankara, Turkey. She received her neuroradiology training at Medical College of Wisconsin, Milwaukee and then at Brigham and Women's Hospital, Harvard Medical School, Boston. Upon completion of her training, she took up an academic position and started working at the Hacettepe University where she became a Professor of Radiology in 2018. Dr. Ozgen has been working as faculty in the Department of Radiology at the University of Illinois at Chicago since August 2016.

Dr. Ozgen has been continuously involved in the clinical practice of Neuroradiology and more specifically in Head and Neck Imaging. She is the author/co-author of 60 peer-reviewed articles in international journals with currently 452 citations by Web of Science (h-index: 11). She has been a reviewer for several medical journals including European Radiology, European Journal of Radiology, Acta Radiologica and is currently working as Head and Neck section editor for the European Journal of Radiology. She has been an invited lecturer in over 20 international conferences and also worked and lectured as faculty member of "ERASMUS MRI course" of the ESR, "Pierre Lasjaunias course in Neuroradiology" of ESNR. Her primary focus is on head and neck imaging and especially temporal bone and orbital imaging.

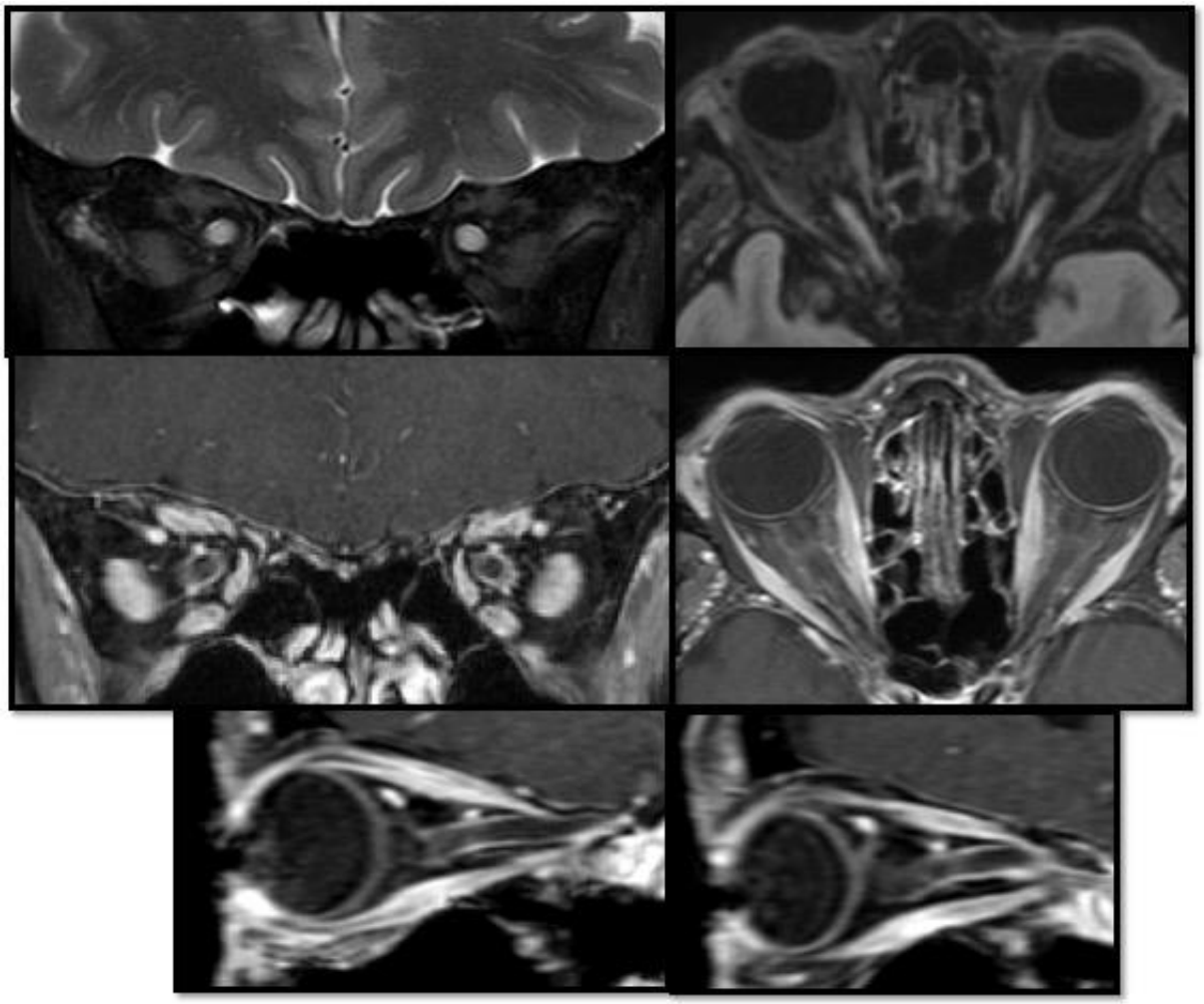
Learning Objectives

1. To become familiar with the new nomenclature and terminology used for inflammatory and granulomatous conditions of the orbit
2. To review the pertinent imaging findings of common and less common orbital inflammatory and granulomatous conditions
3. To learn how to distinguish mass like inflammatory conditions from malignant lesions
4. To highlight imaging pitfalls and how to avoid misinterpretation

Teaser

36 y old female, presenting with blurred vision and pain with eye motion.

What is the radiological diagnosis and what are the possible underlying diseases?
(PS: MS is not one of them!)



Test Your Knowledge

1. Regarding idiopathic orbital inflammation, which of the following is untrue?
    a. It is a diagnosis of exclusion
    b. Patients typically present w painless proptosis
    c. Can be seen anywhere in the orbit
    d. Tendon insertions are typically involved
    e. Has rapid response to steroid treatment

2. Which of the following is not a recognized cause of optic perineuritis?
    a. IgG-4 related disease
    b. Sarcoidosis
    c. Idiopathic orbital inflammation

d. Multiple sclerosis
e. Granulomatosis with polyangiitis

3. Regarding thyroid associated orbitopathy, which of the following is untrue?
   a. It is the most frequent cause of exophthalmos in adults
   b. It typically causes progressive, bilateral, painless proptosis
   c. Imaging is essential for the diagnosis of active inflammation
   d. It is usually a self-limited disease
   e. Imaging do not supersede clinical assessment for the diagnosis of Dysthyroid Optic Neuropathy

4. Which of the following is not a feature of IgG4-related orbital disease?
   a. Subacute onset and indolent course
   b. Presence of orbital pain
   c. Lacrimal gland is most commonly involved site
   d. Lateral rectus is the most commonly involved EOM
   e. Can have accompanying pachymeningitis

5. Which of the flowing is true?
   a. IgG4 related orbital disease can demonstrate perineural extension
   b. Orbital sarcoidosis only involves the lacrimal gland
   c. Optic perineuritis is seen as enhancement of the optic nerve
   d. Lid retraction is a common feature in idiopathic orbital inflammation
   e. Fat expansion is a central characteristic of IgG4 related orbital disease