## **Ophthalmology and Visual Sciences**

2/25/2010



## Bow-tie (band) atrophy secondary to compressive optic neuropathy

The patient was a 57-year-old man with vision loss in the right eye (OD) greater than left eye (OS) in the setting of a craniopharyngioma, which was resected 16 years prior. His visual acuity had been no light perception OD and 20/20 OS since the procedure.

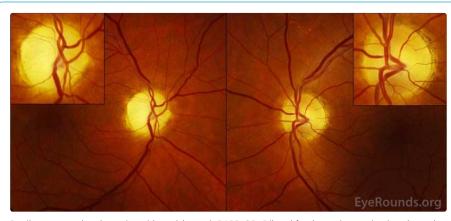


Category(ies): Neuroophthalmology

Contributor: Brittni A. Scruggs, MD, PhD; Matthew J. Thurtell,

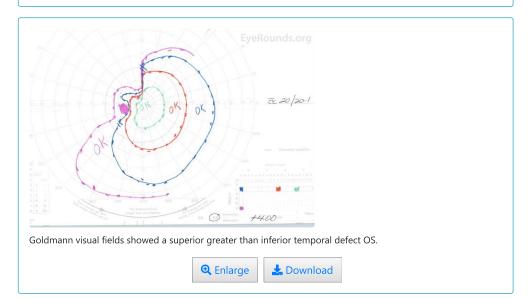
MD

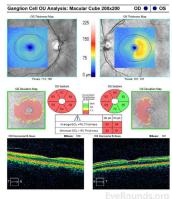
Photographer: Susan J. Wright



Pupils were equal and reactive with a >3 log unit RAPD OD. Dilated funduscopic examination showed severe, diffuse optic atrophy OD and bow-tie (band) optic atrophy OS.







Ocular coherence tomography of the macula showed diffuse ganglion cell layer (GCL) thinning OD and nasal GCL thinning OS.



## Summary:

Contrast-enhanced magnetic resonance imaging (MRI) of the brain and orbits showed a stable tiny ring-enhancing cystic lesion anterior to the pituitary infundibulum and atrophy of the right greater than left optic nerves.

The presence of bow-tie, or band, atrophy suggests that there is a compressive optic neuropathy from an anterior chiasmal and/or medial, posterior optic nerve lesion. This clinical sign warrants further evaluation with magnetic resonance imaging (MRI) or computed tomography (CT) in a patient with unexplained vision loss. Unilateral band atrophy can also be seen in a patient with a unilateral optic tract lesion.

## **University of Iowa Carver College of Medicine**

Department of Ophthalmology & Visual Sciences 200 Hawkins Dr. Iowa City, IA 52242