



**Short Communication**

# Diagnostic of Sellar Tumors Using Optical Coherence Tomography and Magnetic Resonance Imaging

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**Keywords:** Sellar tumor; Optic neuropathy; Retinal nerve fiber layer; Visual field test; Optical coherence tomography; Ganglion cell layer

**Purpose:** The aim of this article is to raise awareness of the diagnosis utility of optical coherence tomography (OCT) in hemianopia as the first examination test.

**Methods:** Two patients with bitemporal hemianopia and progressive decrease in visual acuity underwent scanning by Spectralis OCT (Heidelberg Engineering, Dossenheim, Germany) and lately, by Humphrey field test and magnetic resonance imaging (MRI).

**Results:** Both patients showed retinal nerve fiber layer (RNFL) and ganglion cell layer (GCL) damage. Interestingly, GCL was reduced in nasal section in both eyes, whilst visual field showed bitemporal damage in both cases. MRI displayed sellar tumors, a craniopharyngioma and an hypophysis adenoma.

**Conclusions:** These cases and previous studies suggest that OCT analysis might be used as the first test in a hemianopic visual defect in addition to visual field testing and neurological exams to evaluate patients with lesions compressing the chiasm. GCL analysis might be consider as a neurological screening test to use at the onset of diagnosis process.

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