

# Unilateral Optic Atrophy and Hemianopic Field Defect in Other Eye - Non Arteritic AION

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**Abstract:** A 56 year male patient presented with gradual fall of vision right eye and occasional giddiness of one month duration. Hypertensive, Smoker and alcoholic. Presented with optic atrophy right eye and Hemianopic field defect in left eye. Diagnosed as a rare presentation of Non arteritic AION.

**Keywords:** Non Arteritic -Anterior Ischaemic Optic Neuropathy, Optic atrophy , Hemianopic field defect , Carotid artery stenosis , Circumferential intimal thickening of common carotid artery , Cerebral infarcts , Infarct in Pons.

## 1. Introduction

Non arteritic AION generally presents with quadrantsopic field defects. We are presenting a case with optic atrophy in the right eye and hemi anopic field defect in left eye due to vascular insufficiency-30% right carotid artery stenosis.

## 2. Case Report

A 56 year male patient presented with gradual fall of vision right eye and occasional giddiness of one month duration. Hypertensive since one year. Smoker and alcoholic from 10 years. on examination - Right eye findings are vision Perception of light , pupil sluggish , fundus showed optic atrophy , Visual fields and color vision not possible. Left Eye - vision 6/18 , Color vision is normal, Pupil RAPD , Fundus is normal , Visual fields showed HEMIANOPIC FIELD DEFECT. On systemic examination - BP-140/90 , PR- 70/min , CNS – Left hemiparesis. Investigations CT Brain - Acute infarct in right MCA , marginal zone MCA , PCA and small right PCA territories , chronic infarct right side of pons, MRI Brain - Moderate size old infarct in right MCA, Hypoplastic right vertebral artery , Lacunar infarct in basal ganglia. Color doppler neck vessels - calcified plaque in left bulb 6.2 × 1.9 mm , circumferential intimal thickening of right common carotid causing stenosis of 30 %. ECG and 2D Echo were normal . Complete hemogram , platelets and ESR are normal. Ultrasound abdomen normal. Blood sugar ,

urea, and serum creatinine are normal. Patient is on antihypertensives , statins, aspirin and clopidogrel since 2 weeks.

## 3. Discussion :

Nonarteritic Anterior ischaemic optic neuropathy presents with painless loss of vision in one eye. Involvement of other eye in 10 % of cases as inferior altitudinal field defect. Rarely 10 % patients with RAPD in the other eye have Homonymous Hemianopia due to mass/compression / extending from optic tract along lateral border of chiasma ,vascular occlusion. Ischaemia of anterior optic nerve head is associated with hypertension and diabetes.

## 4. Cause

Occlusion of posterior ciliary artery which supplies laminar , prelaminar and retrolaminar part of optic nerve head.

## 5. Prognosis

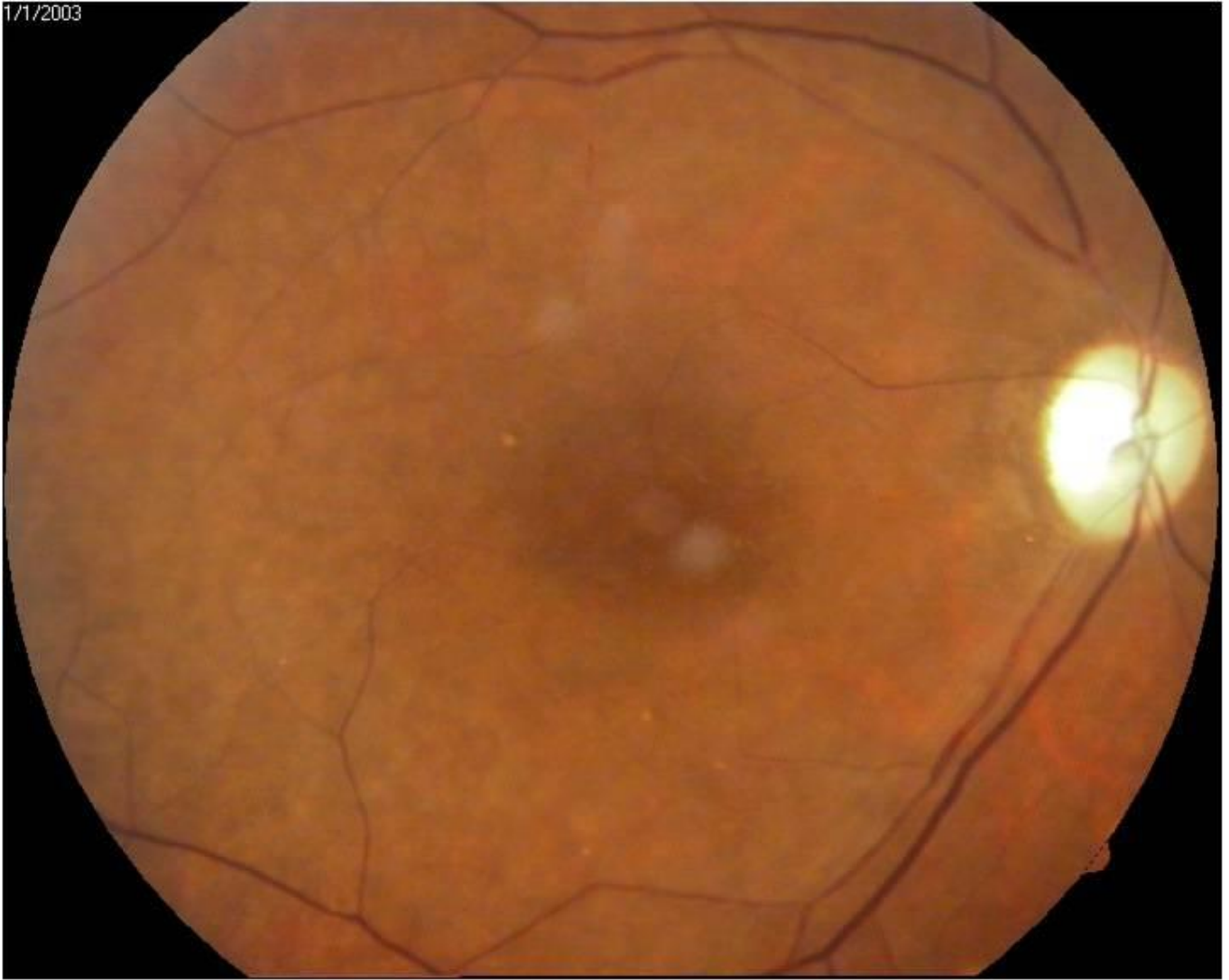
24 % have significant improvement in visual acuity and fields.

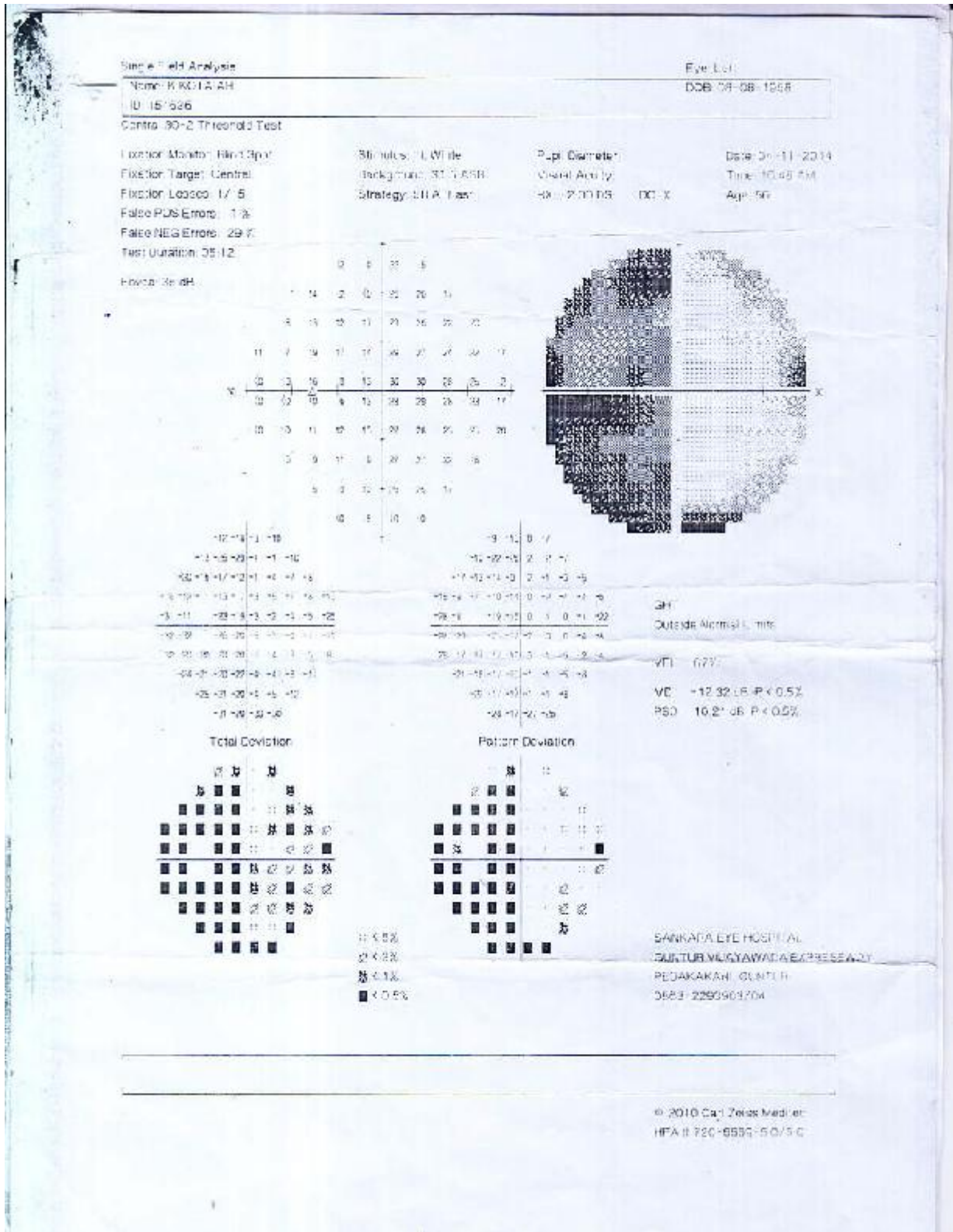
## 6. Follow up

Estimation of visual fields over a period of 12 months.



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**References**

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