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Case Report

Homonymous Hemianopia-A Clue to Cerebral Disorders

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Abstract

A seventy year old male presented with a history of diminution of vision in both his eyes for the past two months. There were no other symptoms. His best corrected visual acuity was 6/6 and N/6 in both the eyes and he was diagnosed as a case of uncorrected refractive error at some other centres. Magnetic Resonance Imaging (MRI) of brain revealed stroke as an underlying cause. A high level of suspicion is required in diagnosing such cases.

Keywords: *Intracranial; Infarct; Loss of Vision*

Introduction

Homonymous Hemianopia(HH) involves loss of vision on the same side of the visual field in both eyes. It is indicative of a lesion involving the visual pathway posterior to the chiasm. The most common cause of HH in adults is stroke. Other causes includes traumatic brain injury, tumors, migraine, seizures, transient ischemic attack, infarction and cerebral haemorrhage [1].

Case Report

A seventy year old male presented with a history of diminution of vision in both his eyes for the past two months. There were no other symptoms. His best corrected visual acuity was 6/6 and N/6 in both the eyes and he was diagnosed as a case of uncorrected refractive error at some other centres. He was a known case of diabetes mellitus and hypertension for the past few years and was on medications for the same. There was no other significant perinatal, surgical, family, traumatic or drug abuse history. On ocular examination, his pupillary reactions, ocular movements, colour vision, intraocular pressure and fundus were normal bilaterally. The significant part of this case was that the patient stated that though his best corrected visual acuity was 6/6 in both the eyes, he was somehow not satisfied with his vision and thought he has some undiagnosed problem.

Giving full respect to the patients words, we did a perimetry and to our surprise, it revealed a right homonymous hemianopia (Figure 1 and 2). MRI of the brain (Figure 3-6) was ordered and it showed a subacute cerebral infarct in the right posterior communicating artery

territory with partial effacement of adjacent lateral ventricle. There was also age related, mild diffuse cerebral atrophy with multiple small white matter hyperintensities bilateral frontoparietal regions suggestive of microangiopathic changes. He was referred to the department of medicine who added aspirin, clopidogrel and atorvastatin to his drug regimen. The patient visited us two months later and stated that he felt better than before.

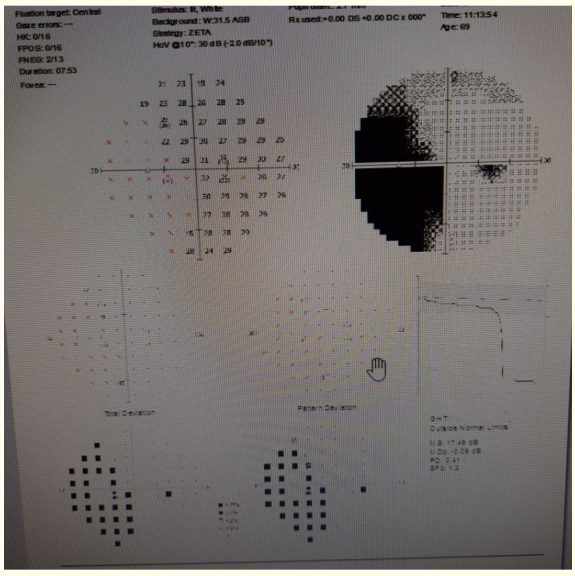

Figure 1

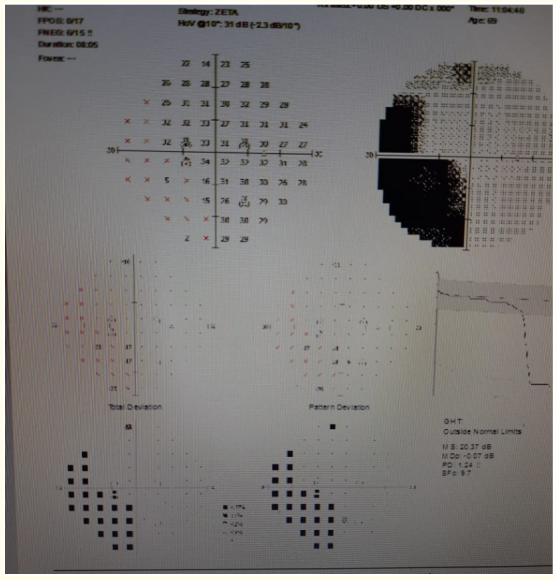

Figure 2

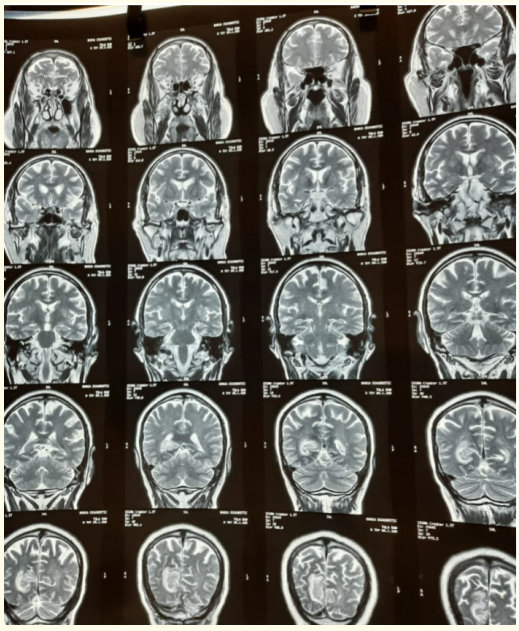

Figure 3

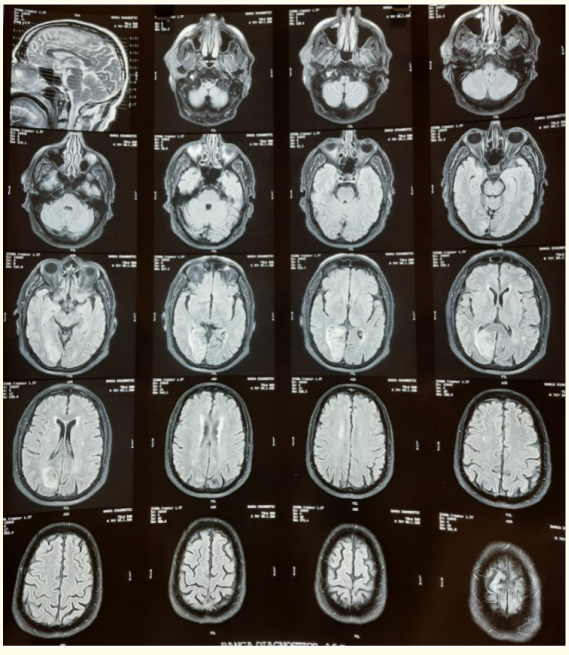

Figure 4

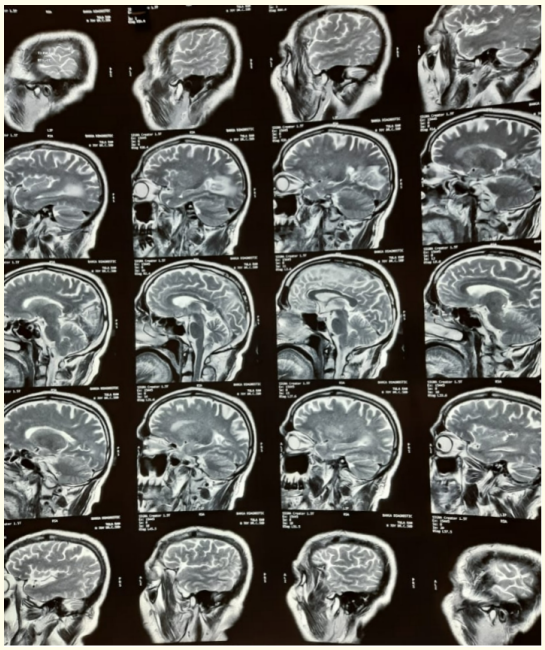

Figure 5

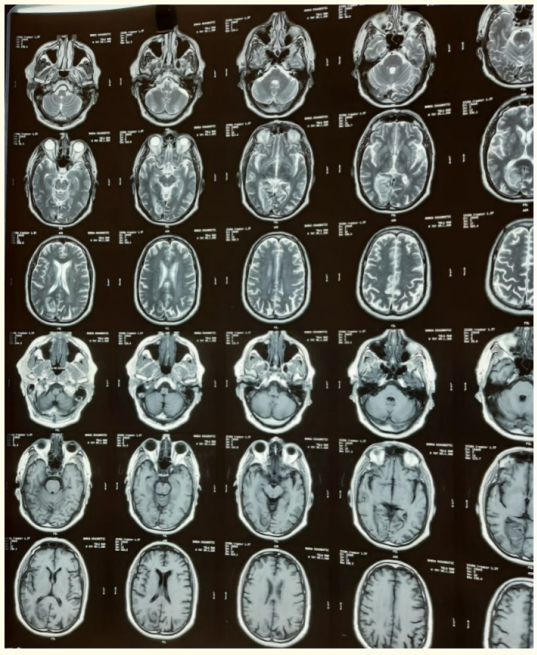

Figure 6

Discussion

The most frequent cortical visual impairments in damage to the brain is HH [2]. Clinically, the patient may be asymptomatic or he can have problems with reading and visual scanning plus driving a vehicle can be troublesome. Diagnosis of HH is by visual field testing using perimetry and neuroimaging is a must in these cases [3]. Spontaneous visual field restoration has been reported in literature. Visual restoration training, optical aids, and compensatory training form the three main treatment modalities for HH [4].

Conclusion

HH leads to visual difficulties, especially in finding objects. Recovery from it was once considered impossible, but with the availability of modern neuroimaging techniques, early diagnosis and hence quick management of the patient is possible.

Disclosure

The paper being submitted has not been published, simultaneously submitted, or already accepted for publication elsewhere.

Conflicts of Interest

The authors declare that they have no competing interest.

Financial Disclosure(s)

The authors have no proprietary or commercial interest in any material discussed in this article.

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