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Isolated Visual Loss in Thalamic Hemorrhage

Talamik Hemorojide İzole Görme Bozukluğu

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Dear Editor,

It has been estimated that about one-quarter of all intracerebral hemorrhage (ICH) cases are thalamic hemorrhage, even though some studies give much lower estimations (1,2). Hypertension is the most important risk factor associated with thalamic hemorrhage (3). The mortality rate among patients with thalamic hemorrhage is substantially high and sensory deficits, oculomotor signs, and language disturbances (if the lesion is in the dominant hemisphere) are three of the most reported clinical signs of patients who survive (2,4). Despite the fact that the clinical presentation of thalamic hemorrhage can vary considerably, there is only one case report of a patient who presented with vision loss due to a thalamic hemorrhage (5).

A 46-year-old male patient was admitted to the emergency department with sudden and incomplete vision loss. Prior medical history included hypertension and coronary artery disease. The patient was non-adherent to the previous treatments. His blood pressure was 220/140 mmHg at the time of admission to the emergency department. During his first neurologic examination, minor dysarthria was reported. He had mild paresis in the left upper extremity and his motor strength in the left lower extremity was 4/5. He had mild hypoesthesia in his left extremities. He had moderate nystagmus while looking right. Right thalamic ICH was reported in his computed tomography (CT) without perilesional edema (Figures 1, 2, 3).

On the third day of his admission, apart from a minor hypoesthesia that persisted in the distal parts of his lower left extremity, he had complete remission. However, the patient

Figure 1. Transverse computed tomography at the time of admission

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reported blurred vision in the left visual field. He had no ophthalmoparesis. Direct and indirect pupillary light reflexes and direct ophthalmoscopy were within normal limits. A visual field test revealed that he had bilateral right quadrantanopia (Figure 4). He was referred to the Department of Ophthalmology. A fundoscopic exam showed no signs with pathologic significance on the optical disc or on the macula. The cup-to-disk ratio was found as 0.2.

No significant changes were seen in the brain CT scan that was repeated at the 6th day of patient's admission. The patient reported minimal visual recovery on the 8, day of his admission, although the quadrantanopia persisted at the time of his discharge.

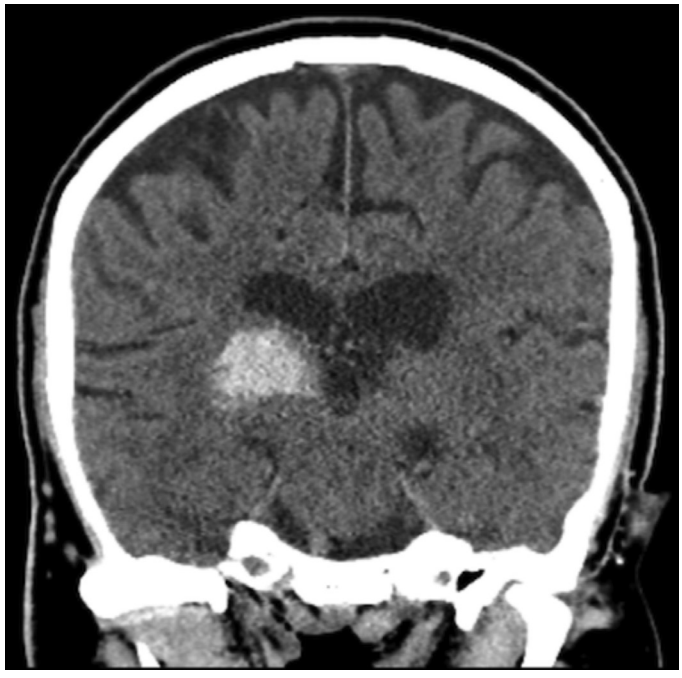

Figure 2. Coronal computed tomography at the time of admission

Figure 3. Sagittal computed tomography at the time of admission

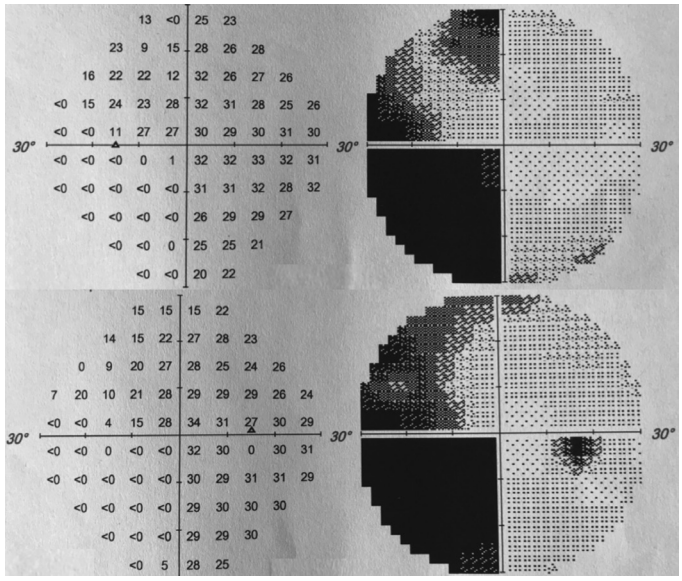

Figure 4. Visual field test-left eye at the top and right eye at the bottom

We hypothesized that the isolated quadrantanopia could be the aftermath of the right optic radiation (posterior thalamic radiation) injury. As mentioned previously, there is only one other study that reported a patient who presented with visual loss due to a thalamic hemorrhage (5). Both that patient and ours displayed similar hemorrhage lesions on CT scans. The similarities between the CT scans were more obvious on transverse sections.

Ethics

Informed Consent: Consent form was filled out by a participant.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: T.A., R.Ç., Concept: T.A., R.Ç., E.C.E., Design: T.A., R.Ç., E.C.E., Data Collection or Processing: T.A., R.Ç., E.C.E., Analysis or Interpretation: T.A., R.Ç., E.C.E., Literature Search: T.A., E.C.E., Writing: T.A., E.C.E.

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References

1. Kumral E, Kocaer T, Ertübey NO, Kumral K. Thalamic hemorrhage. A prospective study of 100 patients. Stroke 1995;26:964-970.
2. Ruiz-Sandoval JL, Chiquete E, Parra-Romero G, et al. Hypertensive thalamic hemorrhage: analysis of short-term outcome. Int J Neurosci 2018:1-6.
3. Tokgoz S, Demirkaya S, Bek S, et al. Clinical properties of regional thalamic hemorrhages. J Stroke Cerebrovasc Dis 2013;22:1006-1012.
4. Kwak R, Kadoya S, Suzuki T. Factors affecting the prognosis in thalamic hemorrhage. Stroke 1983;14:493-500.
5. Agarwal P, Gupta S, Jindal S, et al. Visual hemifield loss in thalamic hematoma. Ann Neurosci 2011;18:177-178.