Optic Tract Hemorrhage after Pituitary Apoplexy

H. J. Kim
W. H. Cho

CASE REPORT

Objective: To describe a case of pituitary apoplexy with optic tract hemorrhage.

Methods: A case report of a 50-year-old man admitted with acute onset of blindness in the right eye. MR imaging and clinical examination were performed.

Results: On physical examination, the pupil was isocoric and light reflex was fixed in the right eye. The extraocular movement showed a full range. Neurological examination revealed normal ranges. Pituitary MR images demonstrated hyperintensity of the optic chiasm and right optic tract with hyperintensity on T1-weighted images. T2-weighted MR images on admission day 2 demonstrated mixed signal intensities of the optic tract from those of the pituitary mass, and with a cavernous malformation within the optic tract. Pituitary MR images on admission day 1 demonstrated mixed signal intensity prominence of the pituitary gland on T1- and T2-weighted images and mild contrast enhancement. On admission day 3, the optic chiasm and optic tract showed no change in signal intensity or of size on T1- and T2-weighted images.

Discussion: In pituitary apoplexy, blood and necrotic tumor tissue are expanded and compressed within the confined space of the sella. Hemorrhage may extend from the hemorrhagic adenoma or occur primarily within an ischemic optic tract. Transsphenoidal surgery for pituitary macroadenoma results in a progressive recovery of the visual field in 95% of patients. Even in apoplectic patients, early decompression of the pituitary mass leads to improvement in the visual deficit. Abrupt cranial neuropathy is also associated with pituitary apoplexy. Vision is most commonly disturbed; rarely, third, fourth, or sixth cranial nerve palsies develop following pituitary apoplexy. Our patient showed visual disturbance for 2 months before admission and an abrupt decrease of the vision associated with acute hemorrhage of the optic tract.

In conclusion, we report a patient with acute hematoma of the optic tract associated with pituitary apoplexy from a hemorrhagic pituitary adenoma. While rare, this finding is of interest in that ischemic or hemorrhagic complications of the optic tract with acute expansion of a pituitary adenoma may

SUMMARY: Subarachnoid hemorrhage following pituitary apoplexy is rare, and optic tract hemorrhage after the apoplexy is extremely rare. We report a case of optic tract hemorrhage after apoplexy that is not associated with hematologic disorders.
lead to visual loss that is not solely related to external compression of the optic pathways.

Early decompression of the pituitary adenomas is recommended for preservation or improvement of the vision.

Acknowledgement

The authors are grateful to Bonnie Hami, Department of Radiology, University Hospitals of Cleveland and Haaga Radiology Research, for her assistance in the preparation of this article.

References