INTERNAL MEDICINE

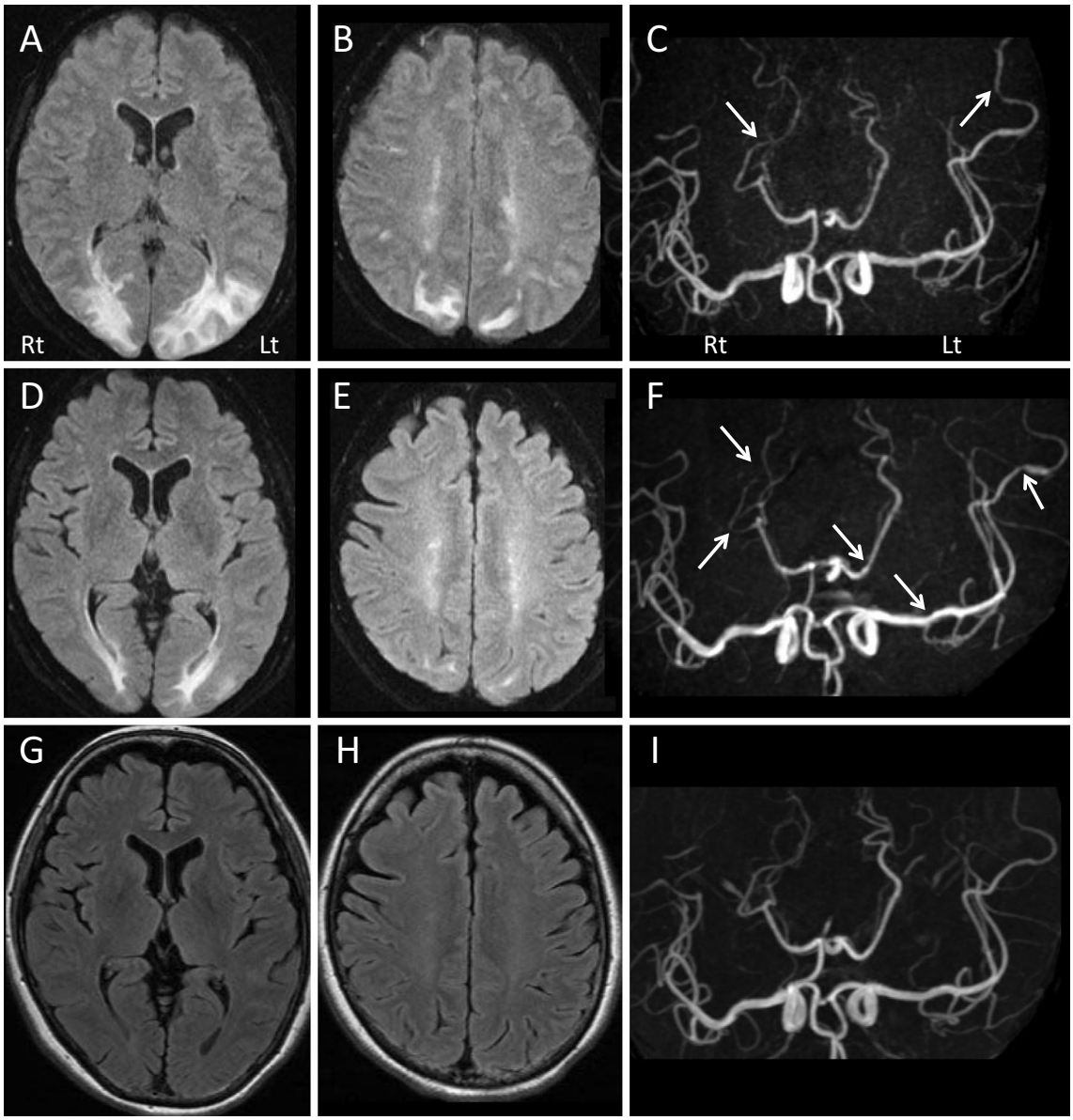
□ PICTURES IN CLINICAL MEDICINE □

Posterior Reversible Encephalopathy Syndrome in a Woman with Chronic Obstructive Pulmonary Disease

Haruka Tanaka, Daisuke Yamamoto, Tsuyoshi Uchiyama and Toshihiko Ohashi

Key words: posterior reversible encephalopathy syndrome, chronic obstructive pulmonary disease

(Intern Med 56: 1119-1120, 2017)
(DOI: 10.2169/internalmedicine.56.8002)



Picture.

Department of Neurology, Seirei Hamamatu General Hospital, Japan
Received for publication July 20, 2016; Accepted for publication August 8, 2016
Correspondence to Dr. Daisuke Yamamoto, daisuke-yama@sis.seirei.or.jp

A 55-year-old woman with a history of untreated chronic obstructive pulmonary disease (COPD) was referred to our hospital because of disturbance of consciousness. She presented with severe wheezing and hypercapnia (139 Torr) without hypertension and was intubated. Beta adrenergic agonists and intravenous hydrocortisone were initiated following a diagnosis of acute exacerbation of COPD. On Day 7, she developed generalized seizures after discontinuing intravenous sedative drugs (midazolam, fentanyl, and dexmedetomidine). Magnetic resonance imaging (MRI) showed bilateral leukoencephalopathy of the occipital lobes and a watershed lesion (Picture A, B and C). The MRI findings improved by Day 18 (Picture D and E), with magnetic resonance angiography (MRA) showing multiple segmental stenosis on contrast (Picture F). These findings diminished by Day 68 (Picture G, H and I). Our ultimate diagnosis was posterior reversible encephalopathy syndrome (PRES) in conjunction with reversible cerebral vasoconstriction syndrome (RCVS) and acute exacerbations of COPD. The MRA findings in this patient were consistent with the centripetal propagation of RCVS (1). The pathogenesis of PRES and RCVS in this patient was unclear, but a rapid correction of severe hypercapnia may have been an associated cause of RCVS (2).

The authors state that they have no Conflict of Interest (COI).

References

1. Shimoda M, Oda S, Hirayama A, et al. Centripetal propagation of vasoconstriction at the time of headache resolution in patients with reversible cerebral vasoconstriction syndrome. AJNR Am J Neuroradiol **37**: 1594-1598, 2016.
2. Verbree J, Bronzwaer AS, Ghariq E, et al. Assessment of middle cerebral artery diameter during hypocapnia and hypercapnia in humans using ultra-high-field MRI. J Appl Physiol (1985) **117**: 1084-1089, 2014.