

sequently received “triple-H” therapy (hemodilution, hypertension, hypervolemia), which led to stabilization of her hemodynamic situation. Cerebral blood flow velocities were monitored by Doppler sonography and gradually normalized over 18 days. An MRI/MRA study at day 90 did not show any pathology at the extra- or intracranial vessels (see the figure, B); neurologic symptoms at day 90 were slight expressive aphasia and a right-sided central peroneal nerve paresis.

Discussion. Cerebral ergotism, i.e., an isolated vasospasm only at the supra-aortal vessels, is very rare. We found only 12 cases in the literature.² In these case reports, cerebral ergotism was due to chronic abuse, overdose, or individual oversensitivity. In our case, the combination of ergotamine taken in normal dosage with ritonavir appeared to cause cerebral ergotism. To our knowledge, this association has not been described before. However, acute ergotism characterized by peripheral vasospasm and ischemia of the extremities with the concurrent administration of ergotamine and ritonavir has been shown in several case reports³⁻⁶ and the combination of the two agents is contraindicated as per the *Physician's Desk Reference*.

This particular case also shows that the use of ergotamine to treat patients receiving ritonavir must be avoided because of possible complications. Moreover, our case illustrates that headache can be a side effect of ritonavir treatment itself and should be treated with nonsteroidal antirheumatic agents.

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References

1. Kumar GN, Rodrigues AD, Buko AM, Denissen JF. Cytochrome P450 mediated metabolism of the HIV-1 protease inhibitor ritonavir in human liver microsomes. *J Pharmacol Exp Ther* 1996;277:423-431.
2. Berlit P, Gerhardt H, Huck K, Diezler P. Ergotismus mit zerebralen Komplikationen. *Schweiz Med Wochenschr* 1986;116:440-445.
3. Phan TG, Agalotis D, White G, et al. Ischaemic peripheral neuritis secondary to ergotism associated with ritonavir therapy. *Med J Aust* 1999;171:502-504.
4. Liaudet L, Buclin T, Jaccard, et al. Severe ergotism associated with interaction between ritonavir and ergotamine. *BMJ* 1999;318:771.
5. Montero A, Giovannoni AG, Tvrde PL. Leg ischaemia in a patient receiving ritonavir and ergotamine. *Ann Intern Med* 1999;130:329-330.
6. Blanche P, Rigolet A, Gombert B, et al. Ergotism related to a single dose of ergotamine tartrate in an AIDS patient treated with ritonavir. *Postgrad Med J* 1999;75:546-547.

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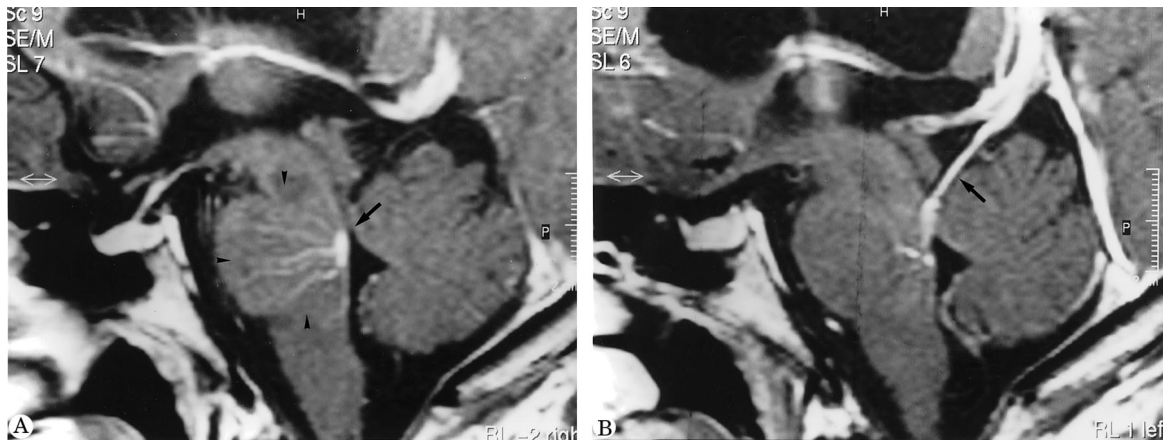


Figure. Contrast-enhanced sagittal T1-weighted spin echo. (A) Caput medusae within the pons (arrows). (B) Venous drainage from caput medusae to vein of Galen (arrow).

Developmental venous anomaly of the pons

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A 26-year-old woman who had experienced tonic-clonic seizures since 2 years of age was admitted because of an increase in the frequency of her seizures during the last month. Neurologic examination was normal. Enhanced MRI showed a venous anomaly within the pons,

which drained into the vein of Galen (figure). This malformation was asymptomatic, as in most cases. Venous angiomas are the most common cerebral vascular malformations. Their presence in the pons is quite rare. They represent a persistent fetal venous drainage caused by failure in development of a normal adult venous drainage system.^{1,2}

1. Lee C, Pennington MA, Kenney CM. MR evaluation of developmental venous anomalies: medullary venous anatomy of venous angiomas. *Am J Neuroradiol* 1996;17:61-70.
2. Senegor M, Dohrmann GJ, Wollmann RL. Venous angiomas of the posterior fossa should be considered as anomalous venous drainage. *Surg Neurol* 1983;19:26-32.

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