

LETTERS

Coil Embolization of Posterior Inferior Cerebellar Artery Isolated Aneurysms

I read with great interest the article by Tikkakoski et al (1) describing their treatment of an isolated dissecting aneurysm of the left posterior inferior cerebellar artery with Guglielmi detachable coils (GDCs). I would like to draw the authors' attention to two additional articles relating to this subject. One article published in the *Journal of Neurosurgery* was a case report of an isolated posterior inferior cerebellar artery treated with standard platinum microembolization coils. The lateral medullary syndrome was fortunately avoided in this patient (2). Another case that we previously reported was a pseudoaneurysm of the posterior inferior cerebellar artery, caused by a head and neck tumor biopsy, which was treated by proximal occlusion of the posterior inferior cerebellar artery using standard platinum microembolization coils (3). I hope these two additional articles will show that in some situations, isolated aneurysms involving the posterior inferior cerebellar artery need not be occluded with GDCs, but can be treated with more conventional coil devices. However, the authors have achieved an excellent result with GDCs.

George P. Teitelbaum
Center for Stroke and Cerebrovascular Disorders
University of Southern California
University Hospital
Los Angeles

References

1. Tikkakoski T, Leinonen S, Siniluoto T, Kiouvukangas J. Isolated dissecting aneurysm of the left posterior inferior cerebellar artery: endovascular treatment with a Guglielmi detachable coil. *AJNR Am J Neuroradiol* 1997;18:936-938
2. Lefkowitz MA, Teitelbaum GP, Giannotta SL. Endovascular treatment of a dissecting posterior inferior cerebellar artery aneurysm: case report. *Neurosurgery* 1996;39:1036-1039
3. Teitelbaum GP, Dowd CF, Larsen DW, et al. Endovascular management of biopsy-related PICA pseudoaneurysm. *Surg Neurol* 1995; 43:357-359

Reply

We appreciate the interest in our case report expressed by Dr Teitelbaum. Dissecting aneurysms of the posterior circulation are rare. Only few reports on their endovascular treatment, with conventional coils, balloons, or both, exist. Advantages of the GDC technique are the predictability and controllability of the coil before detachment. Disadvantage is the cost. To our knowledge, our 34-year-old woman with the progressive dissecting aneurysm of the posterior inferior cerebellar artery was treated (June 1995) with a GDC and was doing well in May 1997.

Tapani Tikkakoski
Sami Leinonen
Topi Siniluoto
John Koivukangas
Oulu (Finland) University Hospital

Pathogenesis of an Ectopic Posterior Lobe in Patients of Short Stature with Growth Hormone Deficiency

Magnetic resonance (MR) imaging has shown characteristic findings in patients of short stature with growth hormone deficiency: pituitary stalk disruption and an ectopic posterior lobe above the stump of the disrupted stalk (1-5). However, there has been a controversy concerning pathogenesis of this entity, and two hypotheses have been proposed. One is that the ectopic posterior lobe is formed above the stump of the stalk, which is transected mechanically during breech presentation or head trauma (1-3). The other is the maldevelopment hypothesis (4, 5).

The maldevelopment hypothesis is based on the fusion concept in an embryonal development of the pituitary gland (Fig 1)

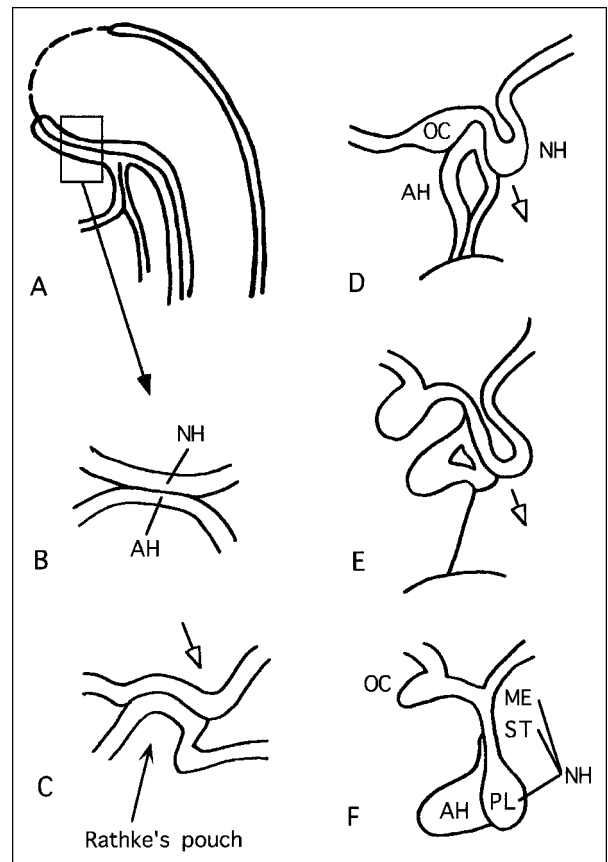


FIG 1. The fusion concept in the embryonal development of the pituitary gland and the maldevelopment hypothesis in the pathogenesis of the ectopic posterior lobe, based on Kelly et al (4).

A and B, The fusion concept in organogenesis of the pituitary gland that is widely believed but apparently incorrect (compare with the true embryology in Figure 2). The primordia of the adenohypophysis and neurohypophysis are separated at the beginning. Both structures fuse to form the pituitary gland during development.

C, The maldevelopment hypothesis. The ectopic posterior lobe is caused by incomplete downward growth of the neurohypophysis.

AH indicates adenohypophysis; NH, neurohypophysis; OC, optic chiasm; EPL, ectopic posterior lobe; ME, median eminence; ST, stalk; and PL, posterior lobe.