Thrombolysis in Very Young Children

To the Editor:

We read the article by Arnold et al. with interest on childhood thrombolysis in stroke. We reported the youngest case (3 years) of basilar occlusion treated with intra-arterial thrombolytic therapy at 18 hours after presentation, which resulted in complete recanalization followed by a full functional recovery at 6 months after the stroke. In our case, the delay resulted from difficulty in diagnosing a basilar artery occlusion, as presentation was similar to a seizure disorder. Diagnosis of basilar artery occlusion in children is particularly challenging because often times basilar occlusion is similar to a seizure.

Delay in clinical recognition can have ramifications as to who will get thrombolytic therapy. Unfortunately, because of the limited number of patients reported in the literature, the variability of time to recognition of the syndrome, and the different treatment modalities used, it is difficult to ascertain the natural history of this condition for children.

Delayed thrombolysis up to 24 to 72 hours has been reported. There are reports in adult patients with noteworthy improvement from a locked-in state to independent function despite significant ischemia to the pons after recanalization through interventional therapies. Such cases delayed revascularization are likely to be uncommon in adults, but in children with the potential for plasticity consistent and aggressive measures to revascularize the occluded vessel may be essential. It is unclear as to whether there is a time point that aggressive measures should not be pursued or whether the natural history would have lead to the identical clinical effect.

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