Isolated and prolonged loss of time orientation

Figure 1 Brain images

MRI shows medial thalamic lesions (A). Statistical parametric map (SPM) of FDG-PET revealed hypometabolism in the cingulate cortex, especially in the posterior part (B). The core lesions were merged in the mediodorsal nucleus (C). Lpo = lateropolaris; MD = mediodorsal; Voe = ventro-oralis externus; Voi = ventro-oralis intermedius.

In 1996, a 33-year-old man was admitted for a sudden somnolence, and was diagnosed with bilateral medial thalamic infarction (figure 1). Although his consciousness returned after a week, he presented a severe isolated impairment of time orientation, which has continued for more than 13 years. His episodic memories after the stroke were registered without time information (see appendix e-1 and figure e-1 on the *Neurology*[®] Web site at www.neurology.org). The bilateral thalamic MRI lesions merged in the mediodorsal nucleus,¹ and FDG-PET in 2004 showed severe hypometabolism in the posterior cingulate cortex and milder hypometabolism in the anterior cingulate. This case suggests that thalamic projection to the cingulate² participates in the processing of time information.

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Author contributions: Statistical analysis was conducted by Dr. Soon-Tae Lee.

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