

The first and second picture stimuli induced sustained gamma-augmentation (arrowheads) in Channels 1 and 2 on the right lateral occipital cortex. No such gamma-augmentation was noted following the third, fourth or fifth picture stimuli, when interictal spike-wave bursts involved the occipital cortex. Low-frequency filter: 50 Hz. High-frequency filter: 300 Hz. A repeat session of central-field picture presentation was employed to this subject in the following day and the results are shown in **Figure 3**.

Figure S1 (Supplementary Data on the Website): Central-field picture-stimuli-induced gamma-augmentation in the lateral-polar occipital region in Patients #1 to #9.

The maximum gamma-range amplitude measure, the onset latency of induced gamma-augmentation and the offset latency of induced gamma-augmentation for each lateral-polar occipital electrode site are presented.

VIDEO LEGENDS

Video S1 (Supplementary Data on the Website): In-vivo animation of gamma-oscillations associated with full-field stroboscopic flash stimuli in a 17-year-old girl with intractable focal epilepsy (Patient #9).

Cortical activation (red) represented as gamma-augmentation (at 50-150 Hz) initially involved the right anterior-medial occipital cortex at 30 msec after stimulus presentation and subsequently involved the lateral-polar occipital cortex at 50 msec after stimulus presentation. Brief gamma-augmentation was noted in the inferior occipital cortex at 60 msec after stimulus presentation.

Video S2 (Supplementary Data on the Website): In-vivo animation of gamma-oscillations associated with central-field picture stimuli in a 17-year-old girl with intractable focal epilepsy (Patient #9).

Cortical activation (red) represented as gamma-augmentation (at 50-150 Hz) initially involved the right lateral-polar occipital cortex at 50 msec after stimulus presentation and subsequently involved the inferior occipital cortex at 70 msec after stimulus presentation. No gamma-augmentation was noted in the anterior-medial occipital region or the posterior frontal region.

Video S3 (Supplementary Data on the Website): In-vivo animation of gamma-oscillations associated with full-field stroboscopic flash stimuli in a 7-year-old boy with intractable focal epilepsy (Patient #4).

Intense gamma-augmentation (at 50-150 Hz) involved the right anterior-medial occipital cortex at 30 msec after stimulus presentation and less intense but significant gamma-augmentation involved the lateral-polar occipital cortex at 50 msec after stimulus presentation. No significant gamma-augmentation was noted in the inferior posterior temporal region or the posterior frontal region.

Video S4 (Supplementary Data on the Website): In-vivo animation of gamma-oscillations associated with central-field picture stimuli in a 7-year-old boy with intractable focal epilepsy (Patient #4).

Cortical activation (red) represented as gamma-augmentation (at 50-150 Hz) initially involved the right lateral-polar occipital cortex at 70 msec after stimulus presentation and subsequently involved the inferior posterior-temporal cortex at 150 msec after stimulus presentation. Subsequently, gamma-augmentation was noted in the posterior frontal region. No significant alteration of gamma oscillations was noted in the anterior-medial occipital region.