An 84-year-old woman had recurrent spells of right upper limb weakness and numbness. There were prior left parietal and right occipital strokes and metastatic breast cancer with skull involvement (figures 1 and 2). The diagnosis was focal epilepsy.

Breach effect is defined as a focal increase in amplitude of α, β, and μ rhythms detected at or near the site

Figure 1  CT head study

Figure 2  EEG recording

High-amplitude, high-frequency activity confined to the right frontocentral region consistent with breach rhythm.
of a bony skull defect, usually seen with surgical skull defects but also with osteolytic lesions of the skull. There is no association with epilepsy, but the EEG alteration may be confused with focal epileptiform discharges.

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Teaching NeuroImages: EEG pattern associated with a skull osteolytic lesion in breast cancer
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