Increase in the number of patients with seizure in post-Great East-Japan Earthquake

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It is well known that natural disasters negatively affect mental and physical health of survivors. Members from Kesennuma City Hospital and Tohoku University conducted a study to investigate changes in the number of emergent neurological cases before and after the Great-East Japan Earthquake. Kesennuma City Hospital with a neurosurgeon on duty has played a central role to treat neurologically emergent cases around this area for years. In addition, due to the disaster, the city was geographically isolated; we could conduct a study with limited population bias. Eight-week period after March 11 in 2011 (the day of the earthquake), the frequency of patients with seizure among all neurological diseases reached 20%, whereas in the corresponding eight-week periods in 2008 to 2011 it was only 11%, 5%, and 0%, respectively. This study shows for the first time the life-threatening situations may increase seizure generation.

The study has been published in the online edition of "Epilepsia". The paper's title is "Increase in the number of patients with seizures following the Great East-Japan Earthquake."

Figure: Fraction of patients in each neurologic disease category at the time of admission to the Department of Neurosurgery, Kesennuma City Hospital from March 11- May 5 in 2008, 2009, 2010, and 2011. The total number of neurologic patients admitted was 55 in 2008, 57 in 2009, 48 in 2010, and 66 in 2011.

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