

SUPER - REFRACTORY NONCONVULSIVE STATUS EPILEPTICUS SECONDARY TO CEREBRAL FAT EMBOLISM: A CASE REPORT

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Introduction. Cerebral fat embolism is a manifestation of fat embolism syndrome (FES) - a complication of long-bone fractures and joint reconstruction surgeries. It can show variable clinical manifestations: focal neurological signs, headache, behavioural disturbances, delirium, convulsions, or coma.

Case report. A 72 - year old woman has had a total hip replacement revision surgery. The next day she had a paroxysm of right arm paresis and dysphasia. Brain CT scan and CT perfusion revealed no abnormalities. 48 hours after surgery the patient became restless and confused, later her consciousness suddenly deteriorated. An immediate EEG showed bilateral ictal epileptiform activity and the diagnosis of nonconvulsive status epilepticus (NCSE) was made. The patient was transferred to neurointensive care unit. Treatment with levetiracetam and lacosamide did not change her clinical state. Sedation and continuous EEG monitoring were started, propofol and midazolam were used. Magnetic resonance imaging (MRI) disclosed small scattered foci of acute ischemia and diffuse petechiae in deep grey matter, subcortical white matter in cerebrum, cerebellum and brainstem. Findings were consistent with cerebral fat embolism.

After two weeks of deep sedation and different regimes of anticonvulsant drugs, super-refractory SE was terminated, and a month later the patient was discharged to a rehabilitation centre.

There is only one case of super-refractory NCSE secondary to fat embolism published in the medical literature and this is the first report of successful treatment of this rare clinical entity.