

Confusion and Hallucination in geriatric patients

Luzia Sandra Meier

Confusion and hallucinations in geriatric patients are frequent symptoms and typically associated with delirium, late-life psychosis or dementia syndromes. A far rarer but well-established differential in patients with rapid cognitive deterioration, acute psychosis, abnormal movements and seizures is autoimmune encephalitis. Clinical and economic problems arising in management of geriatric patients with cognitive decline and psychotic symptoms were explored.

A 77-year-old female patient with an unremarkable medical history was hospitalized after a fall in association with diarrhea and hyponatremia. Upon adequate therapy, disorientation and troubled short-term memory persisted. Within a week the patient developed visual hallucinations, progressive cognitive decline, amnesic impairment, word finding difficulty and general apathy. Introduction of advanced diagnostics, psychiatric and neurologic expertise did not resolve a final diagnosis; an electroencephalogram showed unspecific generalized slowing. Extended clinical observation revealed visual hallucinations and faciobrachial dystonic seizures. A treatment with anticonvulsants was initiated. Cerebrospinal fluid ultimately tested positive for voltage-gated potassium channel LGI1 (leucine-rich-inactivated-1) antibodies confirming diagnosis of autoimmune anti-LGI1 encephalitis. Immediate immunotherapy (high-dose glucocorticoids and administration of intravenous immunoglobulin G) led to a rapid improvement of the patient's condition. After immunotherapy was tapered, the patient had one relapse and completely recovered with reintroduction of glucocorticoids and initiation of therapy with rituximab.

Rapidly progressive dementia in geriatric patients demands a structured and multidisciplinary diagnostic approach. Accurate management and financially supportable care is a major issue in rare diseases such as anti-LGI1-encephalitis. Education and awareness about autoimmune encephalitis of all physicians treating a geriatric population is important in order to involve expertise and establish treatment within reasonable time.

Jury:

Prof. em. Jean-Marie Annoni (thesis supervisor)

Dr.med. Wolfram Weinrebe (thesis co-supervisor)

Dr. med. Joelle Nsimire Chabwine (internal co-examiner)

Prof. Michael Schmid (internal co-examiner)

Prof. Bernhard Voller (external co-examiner)