Herpes zoster encephalitis in the elderly

Sir,

We have recently seen three elderly patients with herpes zoster encephalitis (HZE). Several points concerning presentation and diagnosis in older age emerged that should serve to remind all physicians about this uncommon condition.

An 89 year old woman receiving oral acyclovir for opthalmic zoster developed progressive cognitive impairment over several days. Cranial computed tomographic (CT) scan was normal but electroencephalogram (EEG) suggested underlying herpes encephalitis. She refused lumbar puncture. Acyclovir was administered intravenously rather than orally and clinical recovery developed matched by a normal second EEG examination.

An 87 year old man was admitted with a 3 week history of 'confusion'. Physical examination was normal. Cranial CT scan revealed only mild cerebral atrophy and EEG was 'inconclusive'. Cerebrospinal fluid (CSF) showed a lymphocytosis (52/mm^3) and raised protein (0.76 g/l). Intravenous acyclovir was given and he made a full recovery. Culture of CSF isolated herpes zoster virus.

An 85 year old woman was admitted with worsening 'confusion' over 10 days. Clinical examination and cranial CT scan were both normal. CSF analysis showed no cells but elevated protein (0.90 g/l). An EEG was 'suggestive of underlying encephalitis'. No antiviral therapy was administered and the patient gradually recovered over the next week. Serology subsequently confirmed recent infection with herpes zoster.

Diagnosis of HZE in elderly patients can be difficult in the absence of a preceding zoster skin lesion and a presentation with 'confusion' rather than the more common picture of focal neurological signs.[1] Not all patients with HZE will have a history of a recent segmental zoster rash.[1] In addition, as our first case showed, oral antiviral therapy does not seem to protect patients with cutaneous zoster lesions from developing encephalitis.

All cases showed cranial CT scanning to be unhelpful in the diagnosis of HZE in the elderly. We suggest EEG combined with CSF culture and venous serology to be the best investigations, although serology results are rarely available early enough to influence treatment decisions.[2]

Parenteral acyclovir has been recommended for HZE[3] but as our third case showed, prognosis in the older patient is good even without treatment.[4] The case for antiviral therapy on clinical suspicion of HZE alone remains unproven and should be considered only in patients in whom positive EEG or CSF results complement a clinical picture of cognitive impairment with or without a recent history of cutaneous herpes zoster.

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Acute severe adverse clozapine reaction resembling systemic lupus erythematosus

Sir,

Clozapine is a unique neuroleptic agent currently recommended for use in patients with schizophrenia exhibiting resistance to, or intolerance of, other neuroleptics.[1] Despite enthusiasm regarding its efficacy,[1] significant toxicities of clozapine have been reported including neutropenia, dose-dependent non-specific repolarization changes on electrocardiogram, fever, anticholinergic side effects, pleuro-pericarditis and abnormal liver function with cholestasis.[2,3] We report a case of an acute severe illness resembling systemic lupus erythematosus in a patient with schizophrenia who had recently been prescribed clozapine.

A 39 year old male paranoid schizophrenic had been receiving treatment with chlorpromazine and haloperidol. Three weeks after beginning clozapine (300 mg/day), he was admitted to hospital with a one week history of fatigue and a 3 day history of a progressive severe illness associated with a dry cough, precordial pleuritic chest pain, chills, flushes and generalized arthralgias. He denied ingesting any medications other than clozapine. Examination revealed fever (38.5°C). Blood pressure was 114/60 mmHg, pulse rate 120/minute and respiratory rate 32/minute. Crackles were heard over the left lower lung and a pleuro-pericardial rub was noted over the precordium. The chest X-ray showed increased interstitial lung markings at the left base. An electrocardiogram revealed a sinus tachycardia of 100, and ST abnormalities consistent with pericarditis. Transthoracic echocardiography was normal. The following laboratory abnormalities were noted: haemoglobin 109 g/l, white blood cell count 10.4×10^9/l with toxic granulations and a ESR of 108 mm/hour, alanine transaminase (ALT) 57 U/l (normal range 5–56 U/l), albumin 21 g/l (normal range 30–55 g/l), activated partial thromboplastin time (APTT) 48 seconds (normal range 21.8–39.4 seconds), and an anti-nuclear antibody (ANA) titre of 1/80. The clozapine was discontinued on admission, and chlorpromazine apart, no other pharmacotherapy was prescribed. His fever, arthralgia and chest pain resolved rapidly, and he showed a marked clinical improvement over his 5 day hospital admission. The haemoglobin increased to 123 g/l and the white blood cell count decreased to 6.1×10^9/l with no abnormal appearing cells. Albumin rose to 32 g/l. The APTT remained elevated at 54 seconds and the ALT rose to 79 U/l.

He was reviewed 6 months later at which time he remained asymptomatic with an unremarkable physical examination. The other laboratory investigations had returned to normal values except the partial thrombo-

plastin time (PTT), which remained elevated a year later (73.1 seconds) and the ANA (titre 1/1,280).

The patient's DNA profile did not show the presence of double stranded DNA antibodies. Specific antigen studies were performed which revealed no antibodies to SSA and SSB but positive antibodies to centromere and histones.

The patient's clinical presentation with arthralgias, pneumonitis, polyserositis and fever 2–3 weeks after the initiation of therapy with clozapine, and the rapid clearing of symptoms and signs upon discontinuation of the drug suggests an acute toxic drug reaction. Further, previous reports of patients treated with clozapine in whom fever and pleuro-pericarditis occurred[2,3] are consistent with this hypothesis, and there are reports of reactive clozapine metabolites.[4] An infectious aetiology for this patient's presentation is unlikely given the temporal relationship of clozapine exposure, and the rapid development and resolution of a severe illness in the absence of any specific therapy.

Another interesting feature of this case is the fact that the patient's PTT was prolonged when he presented initially. This prolongation was found to be associated with a positive test for anti-cardiolopin antibodies (ACL). A recent PTT is still prolonged. In spite of this the patient has no symptoms of the anti-cardiolipin syndrome. The presence of ACL has been previously reported in association with chlorpromazine therapy.[5,6] These reports also note that to date, no chlorpromazine–induced ACL has been associated with the anti-cardiolipin syndrome.[7]

We believe that this is the first reported case of clozapine toxicity resembling acute systemic lupus erythematosus.

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