

Treatment with the direct oral anticoagulants (DOACs) Apixaban and Rivaroxaban associated with significant worsening of behavioural and psychological symptoms of dementia (BPSD)

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Objective. To demonstrate the increasing evidence for an aetiological role of cerebral mitochondrial dysfunction in neuropsychiatric disorders.

To raise awareness of the importance of frontline staff partaking in post marketing surveillance of medications.

Case report. We report the cases of two patients who developed worsening BPSD, coinciding with starting the factor Xa inhibitor DOAC medications Apixaban and Rivaroxaban respectively. Both patients required detaining under the Mental Health Act (MHA). Their symptoms improved significantly, within two weeks, on switching to alternative anticoagulant therapies and they were both discharged from the acute psychiatric ward.

Discussion. Frontline healthcare staff in acute settings and the community manage a heavy workload. It is all too easy to overlook potential neuropsychiatric drug side effects, especially if they are not clearly listed. They may be easily missed amongst older patients and wrongly attributed to dementia.

Rivaroxaban is structurally related to the antibiotic Linezolid which has been reported to cause mitochondrial toxicity. Pre marketing In vitro studies concluded the risk of mitochondrial toxicity associated with this anticoagulant to be low. However a more recent in vitro study, using rat kidney mitochondria, reported evidence of mitochondrial swelling and a collapse of the membrane potential following exposure to low doses of Rivaroxaban. The effect of Apixaban, which is structurally related to Rivaroxaban, has yet to be investigated on mitochondrial function.

Recent research supports not only an association between reduced cerebral mitochondrial function and neuropsychiatric symptoms and disorders, but also the aetiological role it may play.

There is a need for a far greater awareness and understanding of the potential cerebral mitochondrial toxicity of drugs commonly prescribed to our older populations.

Conclusion. Cerebral mitochondrial toxicity can have a significant impact on the health and well-being of patients.

Older patients are particularly prone to experiencing neuropsychiatric side effects that may not have been apparent during preclinical trials.

Development of a rating scale of drugs that are potentially less toxic to cerebral mitochondria could inform national prescribing guidelines and enable safer treatments to be offered to older people, reducing the likelihood of them experiencing apparent behavioural and psychological symptoms of dementia.

Dyeing to live – a case of clozapine in disguise, and physicians' courage

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Objective. ... in which clozapine tablets were dyed pink, to work around a delusion preventing treatment, and physicians tolerated and monitored an alarming early response to the drug.

Patient. 56-year-old female with severe enduring Bipolar I Disorder, current episode manic with psychosis, already an inpatient for six months. When first seen by us, polypharmacy was evident including haloperidol 25 mg daily. Thorough trials of mood stabilisers and second generation antipsychotics in various combinations had all failed. She had never had a clozapine trial.

MSE. Dishevelled middle-aged woman of European descent. Restless; shuffling gait; speech pressured, rapid and whispering, often to the point of unintelligibility. Affect labile: anxious and distressed, suspicious, angry, elevated and demanding. Thought form tangential+++ content paranoid persecutory themes, pre-occupied with sexual trauma and delusional belief that yellow medication whether solid or liquid was poisonous. Risks of vulnerability, falls, aggression, neuroleptic malignant syndrome (NMS) and protracted psychotic mania requiring long term hospitalisation.

Plan. Change to clozapine.

Problem. All formulations are yellow.

Solution. Team discussion, ethical analysis, clozapine tablets dyed with red vegetable dye.

Ethical analysis. Potential benefit to patient great; current medications not effective and NMS possibly developing; she was fully informed about clozapine with no attempt made to hide the identity of the now crimson tablets.

Outcome. Patient accepted the clozapine. Temperature, C reactive protein (CRP) and troponin were all normal at baseline but all rose above normal in week 1 of initiation. They peaked in week 3 and by week 4 were dropping, normalising completely within a few weeks. She was transferred to a medical ward for monitoring during weeks 2 and 3 of titration. There were no electrocardiogram changes, no chest pain, no signs of bowel obstruction and no evidence of agranulocytosis. Clinically, she remained well throughout except for the rise in temperature. Once the yellow medicine delusion receded she accepted undyed yellow tablets; the result was discharge home with her best mental state and level of functioning in 15 years.

Significance of this case. There are no cases in the literature that we could find where tablets had been dyed, or where clozapine had been persisted with when such rises in temperature, CRP and troponin occurred. This case illustrates both. The risks in our view were outweighed by the simple fact that clozapine was her only hope of a life worth living.

Lockdown and visual hallucinations in older people: a community perspective

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Objective. After COVID-19 was declared as a pandemic, different countries have enforced lockdowns, and shielding to mitigate the spread of the virus as preventing loss of lives was the priority.

Our aim is to look for possible explanations for increased rates of visual hallucinations presented to Community Mental Health Teams for Older People during the period of lockdown.

Case report. A review of clinical cases presenting with new onset visual hallucinations to the Community Mental Health Teams for

Older People during the lockdown period in 2020 was summarised in two case scenarios. One scenario represents cases with known background of dementia, while the other scenario represents new referrals during the lockdown period with no known psychiatric background. In those cases, the visual hallucinations started during lockdown with no clear cause, did not respond to psychotropic medications, physical health investigations were all normal and hallucinations improved markedly with the end of the lockdown and social isolation.

Discussion. From clinical practice point of view, during the period of lockdown in the COVID-19 pandemic, visual hallucinations has been one of the commonest presentations reported to the Community Mental Health Teams for Older People. Families were calling frequently reporting that their loved ones were “seeing things”. Possible underlying causes include: social isolation, sensory and perceptual deprivation, visual impairment and Charles Bonnet syndrome, lack of cognitive stimulation activities with progress of dementia, superimposed delirium, in addition to depression secondary to loneliness, reduction in community support, increased alcohol consumption and negative effects of repeated media consumption.

Conclusion. There has been a marked increase in reporting visual hallucinations in the shielding older people population in the community during the period of lockdown in the COVID-19 pandemic. This shielded population was not exposed to COVID-19, so it didn't give an explanation to this new phenomenon. Though there are multiple possible causative factors, the effect of the lockdown itself with its resultant social isolation and sensory deprivation remains to be the most significant. Shielding the older people population throughout the COVID-19 pandemic came as an essential measure as the physical safety and preventing loss of lives was the priority; however the lockdown had significant negative effects on the mental health of the shielding population. It remains unclear if those negative effects are going to be reversible in the future, resulting in poor quality of life.

Hypnic headache: a rare type of primary headache disorder

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Objective. Hypnic Headache are a very rare primary headaches that affect the elderly, with an average age of 60 years. Research in the areas of neurophysiology and treatment options for Hypnic Headache are necessary in order to better understand, and improve outcomes for this rare headache disorder.

Case report. Mr. X is a 70-year-old patient, has been presenting with the complaints of headache during sleep at night for the last 1 year. The Headache started after 3 to 4 hours after falling asleep. Due to headache, he wakes up from sleep around 03:00 to 04:00 am almost every night and his headache persist for 30 to 40 minutes. After waking up from sleep he keeps himself busy with religious activity and the headache gradually resolves. He then goes back to bed again.

Mr. X also informed that, the headache is dull in nature and located in left temporo occipital region. It is not associated with photophobia, phonophobia, nausea, vomiting, tearing or discomfort in the leg. He gives no history of early morning headache or day time headache,

sleep disorder, snoring or sleep apnea. He has no past history of trauma to the head, fainting attack, unconsciousness, weakness or paralysis of limbs, seizures or non-epileptic seizures. He is a non-smoker, non-alcoholic, non-hypertensive & non-diabetic person.

On general examination, his heart rate is 70 beats/min, blood pressure 138/68 mm of Hg. There are no anemia, jaundice or oedema present in him. His both lung fields are clear. On neurological examinations there are nothing abnormality detected. His Serological investigations, CBC (Complete Blood Count) FBS (Fasting Blood Glucose), lipid profile are within normal limit. CT scan of the brain is normal. There are no cerebral atrophy or volume loss compatible with age.

Mr. X was treated by several general practitioners with paracetamol, diclofenac sodium, mefenamic acid, tramadol hydrochloride. He used these drugs either singly or in combinations. But with this treatment there were no significant improvement occurs. Mr. X is scared and depressed for his sleep time headache.

Discussion. Hypnic headache is a very rare headache disorder. It occurs in age groups over 60 years. It occurs at night during sleep and waking the patient up, hence the name of it “alarm clock headache”. It is commonly unilateral and lasts for 15 minutes to 4 hours. Hypnic headache commonly dull or throbbing in character and does not make the patient restless, unlike in Cluster Headache. After waking up from sleep, most patients engage in some activity. Hypnic headache is not associated with rhinorrhea, tearing and ptosis. Diagnosis is mainly clinical. Secondary causes headache must be excluded. International Classification of Headache Disorders 3rd Edition (ICHD-3)-beta provides diagnostic criteria for hypnic headache. Pathophysiology of hypnic headache is not clearly identified. Usual treatment options of Hypnic headache includes bed time coffee, lithium carbonate, indomethacin. Our patient fulfil all the criteria of Hypnic headache and he feels improvement with Indomethacin 50 mg in divided doses.

Conclusion. Hypnic Headache is a very rare type of primary headache. It should be diagnosed only after other secondary causes of headache have been excluded. Caffeine, lithium carbonate, flunarizine, indomethacin, used to treat the patient of Hypnic Headache. Lack of study and awareness about these disorders can lead to delays in diagnosis and treatment. Clinical trials are needed to find out proper treatment, but it will be difficult to perform because of the rareness of this disorder.

The impact of the COVID-19 pandemic on obsessive compulsive disorder: a single case study

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Objective. A growing body of research evidence shows that individuals with Obsessive Compulsive Disorder (OCD) have been negatively affected by the COVID-19 pandemic including deterioration of OCD symptoms plus relapse from previously well-controlled OCD. The impact of the COVID-19 pandemic is discussed in a single case study of a patient with OCD consisting of contamination concerns. In addition, the effectiveness of providing Exposure and Response Prevention (ERP) virtually is evaluated with regards to the treatment outcome in COVID-19 related OCD.

Case report. This study describes a 41-year-old, single, employed female with OCD consisting of concerns of contamination and infecting others thereby causing harm. The total duration of the disorder is 32 years with the most recent presentation being of three years duration. Relapse during the pandemic resulted in