

Multiple drugs

Delirium following off-label use and sedation: 10 case reports

In a case series of 16 patients, 10 men aged 47–90 years were described, of whom 8 men developed delirium following off-label treatment with ritonavir, valaciclovir, darunavir, oseltamivir, cobicistat/darunavir or lopinavir/ritonavir for COVID-19. Additionally, 5 of these 10 men also developed sedation following treatment with aripiprazole for delirium [*routes, durations of treatments to reactions onsets and outcomes not stated*].

Patient 1: The 77-years-old man presented and diagnosed with Covid-19. He had a history of prostatic hypertrophy. He was started on off-label treatment with hydroxychloroquine 800 mg/day, ritonavir 100 mg/day, valaciclovir 3000 mg/day and darunavir 800 mg/day. Additionally, aspirin (cardioaspirin) was also started. Subsequently, he developed delirium hyperactive and paranoid ideation. The intensive care delirium screening score and modified overt aggression scale were found to be 6 and 28, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 1 and 11, respectively. Subsequently, he developed mild sedation.

Patient 5: The 75-years-old man presented and diagnosed with Covid-19. He had a history of hypertension. He was started on off-label treatment with hydroxychloroquine 400 mg/day, ritonavir [Novir] 100 mg/day, oseltamivir 30 mg/day and darunavir [Prezista] 800 mg/day. Additionally, ceftaroline-fosamil [ceftaroline] and tamsulosin were started. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 6 and 27, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 2 and 19, respectively. Subsequently, he developed mild sedation.

Patient 6: The 72-years-old man presented and diagnosed with Covid-19. He had a history of ventricular fibrillation and bacteraemia due to hip replacement. He was started on off-label treatment with hydroxychloroquine 800 mg/day, darunavir 800 mg/day, ritonavir 100 mg/day and oseltamivir 150 mg/day. Additionally, ceftaroline-fosamil [ceftaroline], warfarin and amiodarone were started. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 23, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 1 and 5, respectively.

Patient 7: The 47-years-old man presented and diagnosed with Covid-19. He was started on off-label treatment with hydroxychloroquine 200 mg/day, ritonavir [Novir] 100 mg/day, oseltamivir 75 mg/day and darunavir [Prezista] 800 mg/day. Additionally, ceftaroline-fosamil, tamsulosin and aripiprazole were also started. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 27, respectively. Therefore, he was started on IM aripiprazole. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 2 and 10, respectively.

Patient 8: The 53-years-old man presented and diagnosed with Covid-19. He had a history of hypertension. He was started on off-label treatment with hydroxychloroquine 400 mg/day, darunavir 800 mg/day and ritonavir 100 mg/day. Additionally, dexamethasone, omeprazole and olmesartan-medoxomil were also started. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 21, respectively. Therefore, he was started on IM aripiprazole. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 1 and 11, respectively.

Patient 9: The 55-years-old man presented and diagnosed with Covid-19. He had a history of hypertension. He was started on off-label treatment with hydroxychloroquine 400 mg/day and cobicistat/darunavir 800/150 mg/day. Additionally, dexamethasone and atenolol were also started. Subsequently, he developed delirium hyperactive and aggressive behavior secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 24, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 2 and 14, respectively. However, he developed mild sedation.

Patient 10: The 64-years-old man presented and diagnosed with Covid-19. He had a history of hypertension, dyslipidaemia, obesity and depressive disorder. He was started on off-label treatment with hydroxychloroquine 400 mg/day and lopinavir/ritonavir 800/200 mg/day. Additionally, tocilizumab, cardioaspirin, rosuvastatin, losartan, citalopram and lorazepam were started. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 21, respectively. Therefore, he was started on IM aripiprazole. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 2 and 16, respectively.

Patient 13: The 72-years-old man presented and diagnosed with Covid-19. He had a history of cholecystectomy. He was started on off-label treatment with hydroxychloroquine 200 mg/day, ritonavir [Novir] 100 mg/day and oseltamivir 30 mg/day. Subsequently, he developed delirium hyperactive secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 6 and 26, respectively. Therefore, he was started on IM aripiprazole injection. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 0 and 9, respectively.

Patient 14: The 90-years-old man presented and diagnosed with Covid-19. He had a history of mitral/aortic valve incompetence and chronic renal failure. He was started on linezolid, methylprednisolone, enoxaparin-sodium [Clexane] and morphine. Subsequently, he developed delirium hyperactive and persecutory ideation secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 5 and 25, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 2 and 9, respectively. However, he developed mild sedation.

Patient 15: The 71-years-old man presented and diagnosed with Covid-19. He had a history of recent coronary bypass and cardiac ischaemia. He was started on cotrimoxazole [sulfamethoxazole/trimethoprim], aspirin [cardioaspirin] and enoxaparin sodium. Subsequently, he developed delirium hyperactive and persecutory ideation secondary to antiretroviral therapy. The intensive care delirium screening score and modified overt aggression scale were found to be 6 and 32, respectively. Therefore, he was started on IM aripiprazole injection 9.75 mg/1.3 mL. The intensive care delirium screening score and modified overt aggression scale following two hours of aripiprazole were found to be 0 and 5, respectively. However, he developed mild sedation.

