

Covid-19 infection in an individual with Down Syndrome, obesity, and hypothyroidism: a case from the UAE

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Covid-19 infection severity has been associated with pre-existing conditions including obesity. Individuals with Down Syndrome (DS) are potentially at high risk. Reports on the outcomes of Covid-19 infection in individuals with DS are scant. Here we present such a case. MA is a 27-year old Emirati male with DS, obesity and hypothyroidism. He was brought to the ER with a history of hemoptysis (2 days), fever and cough (1 week). He tested positive for Covid-19. Initial investigations showed high CRP (44 mg/l), and mildly elevated ferritin (541 mcg/l) and D-dimer (0.93 mcg/ml). A chest CT scan showed classic Covid-19 pneumonia features with moderate severity score of 10/25. On Day 7 post-admission, his condition deteriorated; septic shock secondary to gram negative septicaemia with multi-organ failure developed. He required ventilator support and was intubated in ICU. Oliguric/anuric acute kidney injury (creatinine 882 mmol/l) followed, requiring hemodialysis; thrombocytopenia and deranged liver function tests were reported. He was prescribed full course COVID-19 regimen with multiple courses of broad-spectrum antibiotics and antifungal medication. After 10 days, MA was extubated but remained on oxygen supplementation, until finally weaned off oxygen completely. His renal function gradually recovered; his transaminitis and thrombocytopenia resolved. His severe hypernatremia (sodium 170 mmol/l) improved on hypotonic fluid. MA was discharged after 5 weeks with a 10-day ICU stay. Post-Covid, swollen legs, uncontrolled headache, hair loss, and weight loss (9 kg) were noted. Hypothyroidism was inadequately controlled (TSH 11.72 mIU/l) 3 months post-discharge requiring thyroxine dose increase (150 to 175 mcg OD). This report highlights management challenges of COVID 19 infection in individuals with DS who often have other co-morbid conditions including obesity. Hospital admission can be prolonged and the course complicated by multi-organ failure. Specific preventative strategies including social distancing measures and vaccination schedules are needed for people with DS.