Multiple drugs

S

Various toxicities: case report

A 73-year-old man developed pancytopenia, COVID-19 infection and *Legionella* infection following treatment with docetaxel and prednisolone for prostate cancer. Subsequently, he exhibited lack of efficacy while receiving off-label treatment with levofloxacin, piperacillin/tazobactam, vancomycin, ciclesonide, dexamethasone and nafamostat for COVID-19 infection. He also exhibited lack of efficacy during treatment with levofloxacin, piperacillin/tazobactam, vancomycin, ciclesonide, nafamostat and dexamethasone for legionella infection and remdesivir for COVID-19 infection [*routes, dosages and durations of treatments to reaction onsets not stated*].

The man, who had prostate cancer, was receiving chemotherapy with docetaxel and prednisolone. Concomitantly, he was receiving pegfilgrastim and rivaroxaban. Subsequently, he presented with fatigue over five days. Physical examination demonstrated that he was alert and oriented. He exhibited fever, dyspnoea, tachycardia and atrial fibrillation. The A-DROP score for assessing the severity of community-acquired pneumonia by the Japanese Respiratory Society was 3 points. He was hospitalised for severe pneumonia. On admission, laboratory investigations were performed. He had pancytopenia. Chest CT showed an infiltrative shadow and pleural effusion in the upper and lower left lobes but did not show the appearance of a typical COVID-19 radiological pattern. The urine *Legionella* antigen test by immunochromatography was positive. Also, SARS-CoV-2 test by loop-mediated isothermal amplification of swabs from the nasal cavity was positive. Pancytopenia, COVID-19 infection and *Legionella* infection were attributed to docetaxel and prednisolone chemotherapy.

The man immediately started receiving levofloxacin, piperacillin/tazobactam [tazobactam/piperacillin], vancomycin, ciclesonide, nafamostat [nafamostat mesilate] and dexamethasone for legionella infection and as off-label treatment for COVID-19 infection. He also received remdesivir for COVID-19 infection. On day 2 of hospitalisation, despite this treatment, his dyspnoea worsened and respiratory rate increased (lack of efficacy). Chest radiography revealed worsening pneumonia. Hence, tracheal intubation was performed. He was diagnosed with acute respiratory distress syndrome (ARDS). Subsequently, he was treated with unspecified analgesia, sedation and haemodynamic maintenance. Thereafter, his condition improved. Following 2 days of intubation, his partial pressure of oxygen/fraction of inspired oxygen (P/F) ratio worsened and hence, prone position therapy was started. On day 6 of hospitalisation. His serum creatinine increased and continuous haemodiafiltration was initiated. On day 8 of hospitalisation, his P/F ratio improved and he was extubated. His general condition also improved. Continuous haemodiafiltration was discontinued. On day 14 of hospitalisation, he was transferred to the general ward. On the day 20, oxygen administration was no longer necessary. On day 27 of hospitalisation, he was discharged.

Shimizu M, et al. Co-infection with Legionella and SARS-CoV-2: a case report. JA Clinical Reports 7: 2021. Available from: URL: http://doi.org/10.1186/s40981-021-00467-3