

Fingolimod

S

Type 2 second degree atrioventricular block: case report

A 55-year-old man developed type 2 second degree atrioventricular block (AVB) during treatment with fingolimod for multiple sclerosis. [route and dosage not stated]

The man, who had multiple sclerosis, had been receiving fingolimod treatment since 2011. On the 27 March 2020, he presented to a primary care hospital with fever, dry cough, dyspnoea, anosmia, bone and joint pain and ageusia. Subsequent examination showed peripheral oxygen saturation of 87%, respiratory rate of 32 breaths/min and severe bilateral interstitial pneumonia. Therefore, he was hospitalised. A nasopharyngeal swab specimen was positive for SARS-CoV-2 ARN. Hence, fingolimod was discontinued from 27 March 2020. During hospitalisation, he was on non-invasive ventilation for respiratory support. He started receiving off-label treatment with hydroxychloroquine, lopinavir/ritonavir and systemic unspecified steroid treatments for COVID-19. On 15 April 2020, he was discharged following a negative result for SARS-CoV-2 on a nasopharyngeal swab. His peripheral oxygen saturation and respiratory rate were 95% and 16 breaths/min, respectively. During the following days, he experienced asthenia and mild dyspnoea with moderate exertion. After 46 days of treatment discontinuation, fingolimod therapy was re-initiated. At treatment restart, his heart rate was 86 beats/min and blood pressure was 127/77mm Hg. His baseline electrocardiogram (ECG) was normal. However, approximately after 3 hours from administration of fingolimod, he developed asymptomatic type 2 second-degree AVB (Mobitz II).

The man's AVB resolved after about 9 hours. Following the consultation with cardiologist, the echocardiogram was performed which showed normal ejection fraction, dimension, and ventricular motion. He did not receive any treatment for AVB due to stable blood pressure. At night telemetry monitoring showed a single episode of type 1 second degree AVB. On the next day, he was discharged with a sinus rhythm and normal ECG. His fingolimod was permanently discontinued.