Natalizumab

Coronavirus disease-2019 infection: 6 case reports

In a single centre study involving patients treated with natalizumab for relapsing multiple sclerosis (MS), six patients (5 women and 1 man) were described who developed COVID-19 infection during the treatment with natalizumab for MS.

A 47-year-old woman (patient 1 from table 1 and 2), had relapsing MS and had previously received treatment with interferon beta-1b for MS. Subsequently, she was hospitalised and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 12 October 2020, following the administration of 28 doses of natalizumab, she developed COVID-19 infection associated with natalizumab. Her COVID-19 infection recovered showing a negative COVID-19 swab test on 30 November 2020

A 52-year-old man (patient 2 from table 1 and 2), had relapsing MS and had previously received treatment with interferon beta-1a, interferon beta-1b and cyclophosphamide for MS. Subsequently, he was admitted and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 14 November 2020, after receiving 69 doses of natalizumab, he developed COVID-19 infection associated with natalizumab. He was hospitalised for COVID-19 and received off-label treatment with azithromycin and prednisolone for the COVID-19 infection along with paracetamol for fever. His COVID-19 recovered showing a negative COVID-19 swab test on 28 December 2020

A 39-year-old woman (patient 3 from table 1 and 2), had relapsing MS. Subsequently, she was hospitalised and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 13 January 2021, following the administration of 18 doses of natalizumab, she developed COVID-19 infection associated with natalizumab. She developed John Cunningham virus infection of unknown aetiology as well. Her COVID-19 infection recovered showing a negative COVID-19 swab test on 28 January 2021.

A 31-year-old woman (patient 4 from table 1 and 2), had relapsing MS. Subsequently, she was hospitalised and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 15 January 2021, following the administration of 13 doses of natalizumab, she developed COVID-19 infection associated with natalizumab. Her COVID-19 recovered showing a negative COVID-19 swab test on 16 february 2021.

A 34-year-old woman (patient 5 from table 1 and 2), had relapsing MS and has previously received treatment with fingolimod for MS. Subsequently, she was hospitalised and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 16 January 2021, following the administration of 57 doses of natalizumab, she developed COVID-19 infection associated with natalizumab. Her COVID-19 recovered showing a negative COVID-19 swab test on 25 february 2021.

A 32-year-old woman (patient 6 from table 1 and 2), had relapsing MS and has previously received treatment with interferon beta-1a for MS. Subsequently, she was hospitalised and started receiving treatment with IV natalizumab 300mg for relapsing MS. On 5 March 2021, following the administration of 62 doses of natalizumab, she developed COVID-19 infection associated with natalizumab. Her COVID-19 recovered showing a negative COVID-19 swab test on 8 March 2021.

Chisari CG, et al. Natalizumab administration in multiple sclerosis patients during active SARS-CoV-2 infection: a case series. BMC Neurology 21: No. 1, Dec 2021. Available from: URL: http://doi.org/10.1186/s12883-021-02421-3