<u>Sars-CoV-2 infection in haematological patients during allogenic stem cell transplantation: a</u> double case report

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As the coronavirus disease spread all over the world, scientific research boomed, often excluding patients with malignant diseases, especially those with haematological malignancies. Herein, we report 2 cases of Sars-Cov-2 infections in patients with severe immunosuppression due to conditioning chemotherapy for allogenic stem cell transplantation (SCT).

We collected medical information from 2 patients with acute myeloid leukemia (AML) who were undergoing conditioning chemotherapy for allogenic SCT, and contracted an infection by Sars-Cov-2.

A few days before allogenic SCT for AML, we performed nasopharyngeal swabs on both our patients. PCR analysis came back positive for Sars-Cov-2 infection. However, none had symptoms associated with COVID-19. While in profound aplasia, both patients were treated with hydroxychloroquine for 5 days total. Interestingly enough, respiratory deficiency did not occur for any of the patients, not during nor after aplasia.

Poor clinical outcomes were expected for both our patients considering their immunosuppression, yet we witnessed the opposite. To date, the available data concerning patients with malignant diseases are contradictory: some conclude cancer patients are more at risk of severe disease and unfavourable outcome, while others state the opposite. More specifically, among patients with haematological malignancies, patient outcomes vary greatly and it is difficult to draw conclusions due to underrepresentation in the aforementioned studies of those fragile patients and the variable immunosuppressed states they are in.

Today, questions remain unanswered: Has immunosuppresive treatment positively affected our patients' evolution? Should immunosuppression be considered as a treatment option in COVID19? This is a bold propisition, but one that should be looked into.

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