THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-1059

Tacrolimus treatment of pure red cell aplasia due to anti-erythropoietin antibodies induced by COVID-19 in hemodialysis patient: A case report

Yongyu Feng, Yisheng Liang, Zhonglin Feng, Shuangxin Liu, Lixia Xu
Department of Internal Medicine-Nephrology, Guangdong Cardiovascular Institute Guangdong , Provincial People's Hospital Provincial People's Hospital,Guangdong Academy of Medical Guangdong Academy of Medical SciencesSciences, China

Case Study : Pure red cell aplasia (PRCA) caused by coronavirus disease 2019 (COVID-19) infection inducing anti-erythropoietin (anti-EPO) antibodies is very rarely reported. In this article, we report a case of a hemodialysis patient who developed high titers of anti-EPO antibodies leading to PRCA after successful treatment of COVID-19 infection with tacrolimus and Roxadustat. The patient was infected with COVID-19 after 1 year of EPO treatment and despite increasing frequency of subcutaneous injection of EPO, hemoglobin (Hb) levels continued to decline and the patient required frequent RBC transfusions. After ruling out other causes of anemia, laboratory tests confirmed the production of anti-EPO antibodies, so we diagnosed PRCA. Anemia remained unimproved with systemic prednisone and cyclosporine therapies. Retest positive for anti-EPO antibodies. We used tacrolimus instead of cyclosporine. No further RBC transfusions were required after 4 weeks of tacrolimus and renal anemia was corrected by treatment with Roxadustat. The anti-EPO antibodies turned negative. Although this report emphasized COVID-19 infection can induce anti-EPO antibodies, resulting in antibody-mediated PRCA, of which the associated mechanisms remain unclearly defined.

屏幕截图 2024-02-03 172332.png