TEMPORALLY CARDIOVASCULAR ADVERSE EVENT DURING RITUXIMAB INFUSION: A CASE REPORT

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Objectives:

Rituximab is a chimeric mouse/human monoclonal antibody directed against the B cell CD20 receptor. It has been widely used in the treatment of hematological disorders with good therapeutic effectiveness and tolerability profile.

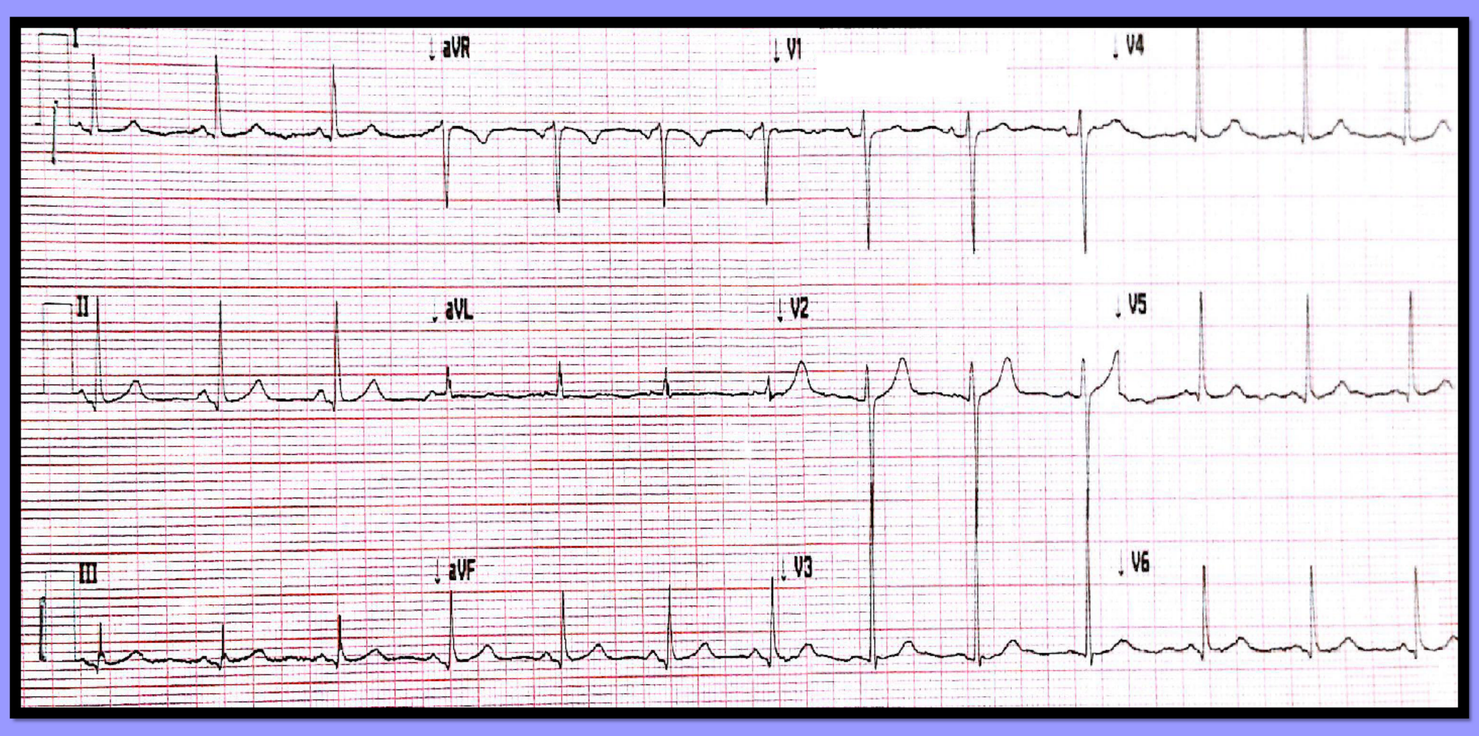
This biological agent is now increasingly employed even in several autoimmune diseases, as an alternative therapeutic option for patients refractory to standard treatment, with encouraging results and less serious side effects than cytotoxic regimens. However, also Rituximab is not a complication-free agent. Most frequently reported side effects include fever, bronchospasm and hypotension, whose incidence seem to be related to the infusion speed, that usually regress by stopping the infusion. A very low incidence of cardiovascular events has been also reported, but always in patients with preexisting cardiac diseases.

Case Presentation:

We report the case of a 20-years old woman affected by stage IV Lupus Nephritis (LN) first diagnosed 4 years before, that experienced cardiovascular accident during the third infusion of a four-dose treatment program performed with the standard dosage of 375 mg/m2 Rituximab on days 1,8,15 and 22. Any cardiovascular risk factor was preliminary excluded by cardiologic clinical examination, ECG and Echocardiographic evaluation.

Rituximab infusion was preceded by a desensitizing protocol. The standard 375 mg/m2 dose was administered in 750 ml of 0.9% saline solution at a rate of 50 ml/h. During the infusion, all vital signs were normal and no cardiovascular symptom was observed, until the onset of rash and facial swelling during the fifth hour of treatment. The infusion was immediately stopped. Blood pressure and lung auscultation were normal, but ECG showed inverted T waves in V3-V6-DII-DIII-Avf (Figure 1) and a mild-moderate increase of enzymatic indices of myocardial necrosis enzymes and NT-pro-BNP. The patient was strictly monitored and after few hours both electrocardiographic and enzymatic alterations regressed, without further consequences.

Figure 1



Conclusions:

This case emphasizes the necessity to perform a careful cardiac monitoring during Rituximab administration, because acute cardiac complications can be elicited by the rapid release of cytokines induced by the infusion of this agent also in patients without apparent evidence of cardiologic risks. Moreover, this case also show that Rituximab-associated cardiologic events can occur despite previous administrations of this drug had been well tolerated.

References:

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