

Letter to the Editor

Attention to Infliximab adverse events: chimeric monoclonal antibodies can induce anti chimeric antibodies that may result in Kounis hypersensitivity associated acute coronary syndrome

Dear Editor,

Infliximab is genetically produced murine chimeric antibody (from the Greek mythological monstrous fire-breathing hybrid chimera composed of parts of more than one animal) that contains polypeptides from different species, such as humans, in order to reduce antibody's immunogenicity. It consists of 25% murine sequences in the variable region of antibody, but some patients have developed antichimeric antibodies against infliximab¹. Infliximab is anti-TNF- α antibody widely used for the treatment of chronic inflammatory diseases such as rheumatoid arthritis, ankylosing spondylitis, Crohn's disease, ulcerative colitis and systemic vasculitis.

In the very interesting report published in *this Journal*² among 36 patients suffering from Crohn's disease and ulcerative colitis and treated with infliximab, 2 developed anaphylaxis, 8 mild acute infusion reaction, 2 hypotension, 2 respiratory distress, 2 skin eruptions and macules, 1 hypertension and 1 tightness in chest. Although treatment and cardiological work up was not described, it seems likely that these symptoms were due to Kounis hypersensitivity associated acute coronary syndrome³. This syndrome is defined, as concurrence of acute coronary syndromes with conditions associated with mast cell and basophil activation, involving interrelated and interacting inflammatory cells and including allergic, anaphylactic and anaphylactoid insults⁴. Three variants of this syndrome have been described so far that include coronary artery spasm, plaque erosion and/or rupture manifesting as acute myocardial infarction and stent thrombosis with thrombus infiltrated by eosinophils and mast cells⁵.

The use of infliximab has been associated with plethora of hypersensitivity reactions⁶ such as atopic dermatitis, acne, allergic contact dermatitis, allergic pulmonary aspergillosis, alopecia areata, atopic dermatitis, cutaneous vasculitis, eruption, erythema nodosum, eczematoid eruption, eczematoid dermatitis, eczematoid-like purpura of Doukas-Kapetanakis, granuloma annulare, lichen planus, necrotizing fasciitis, niacin-like reaction, nummular eczema, psoriasiform eruption, pustular eruption, red man syndrome (striking, "glowing" red discoloration of the skin), serum sickness, urticarial rash, urticarial vasculitis and acute myocardial infarction (type I variant of Kounis syndrome)⁷.

Therefore, in an effort to prevent and treat such infliximab-induced consequences we recommend the followings: careful history of drugs and adverse drug reactions and allergies (atopy), both antibody and patch, skin prick, intradermal skin testing for the drug, macrophage and T-cell activation studies before infliximab administration. Furthermore, cardiac enzymes and troponins, total IgE, IgG, specific IgE, IgG and desensitization strategies if it is proved necessary. Considering the use of mast cell stabilizers in association with steroids and antihistamines might prove also beneficial⁸.

Conflict of Interest

The Authors declare that they have no conflict of interests.

Financial Disclosure

The Authors have no financial relationships relevant to this article to disclose.

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