Chapter 7

A BRIEF AND CURRENT OVERVIEW OF INTRAVENOUS IMMUNLOBULIN G TREATMENT

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IVIG HISTORY

First use of antibodies in treatment developments were observed in the late 19th century. The use of immune serum in the treatment the foundations were laid by Emil von Behring and Sihibassaburo Kitasato. Edwin J. Kohen, produced a blood product that i was 15-20 times more intense than in plasma immunoglobulin (Ig), using ethanol fractionation method at low temperature, in the years following the second world war. It was successfully applied with antibody deficiency patients, in 1979 for the first time. It was first licensed in 1981 for the treatment of primary and secondary immunodeficiencies.

Recent studies performed in last 20 years clarified the action mechanisms of these treatment protocols, thus, immunoglobulins as prophylactic or therapeutic agent, can be used not only in the treatment of those with immun deficiency but also in many autoimmune, infectious, and hematological diseases (1).

IVIG STRUCTURE

Immunoglobulins are glycoprotein molecules, which are capable of specifically binding with antigens that exhibit antibody

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6) If neutropenia occurs, it may sometimes resolve spontaneously or may require corticosteroid treatment.

7) Appropriate tests should be performed to evaluate the presence of anti-neutrophil antibodies in both product and patient serum in the event of transfusion-associated acute lung injury (TIAD). Immunoglobulin-induced TIAD patients can be successfully treated, usually within 96 hours, using oxygen therapy and appropriate ventilatory support.

8) Stroke is a rare but potentially fatal side effect of IVIG, incidence 0.6%. High-dose therapy occurs 24 hours after ingestion. It is more common in hypercoagulable conditions such as chronic hypertension and polycythemia vera with previous stroke, carotid artery stenosis. In these cases, application should be made under appropriate antiaggregant / anticoagulant treatment.

9) Myocardial infarction (MI) is very rare but can result in death. It is seen after high dose in half of the cases. Risk factors include; Previously MI, hypertension, new bypass surgery and severe diabetes mellitus. An accurate history should be taken and the infusion rate should be kept as slow as possible. Cardiac enzyme and ECG monitoring should be performed.

Referance

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