

Association of immunoglobulin G abnormalities in diseases: a mini review

ABSTRACT

Immunoglobulins are antibodies that play important roles in preserving our immune system. They have the ability to initiate humoral responses and remove antigen from the body. Out of the five major isotypes of immunoglobulins, IgG are most abundantly found in human serum. Abnormalities –deficiency or elevation in the level of IgG are found to be associated to the occurrence of several autoimmune diseases. These may include rheumatoid arthritis, Crohn's disease, Mikulicz's disease, Kuttner's tumour and Hashimoto's thyroiditis. Apart from autoimmune diseases, IgG has been found to play a role in initiating anaphylaxis, a severe and life threatening form of allergy and lately it has been discovered in cases of dengue virus infection too. It is important to acknowledge the roles of IgG on diseases especially subclass IgG4 which the elevation has been tied to numerous diseases such as Kuttner's tumour and Hashimoto's thyroiditis hence termed IgG4-related diseases. In addition, the roles of IgG in anaphylaxis are of importance, too, as IgG has been used in allergy immunotherapy. Hence, this review is a mini compilation of effects of IgG abnormalities based on their subclasses. Hopefully it will provide insightful understanding on the development of diagnostic and therapeutic courses for the aforementioned IgG abnormalities in the future.

Keyword: Immunoglobulin G (IgG); Abnormalities; Autoimmune diseases; Anaphylaxis; Dengue virus infection