

Ideaology of Immuno deficiency diseases

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Received: March 08, 2021; **Accepted:** March 18, 2021; **Published:** March 29, 2021

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Immunodeficiency diseases are often caused by inherited syndromes, infections, drugs, medical conditions, pregnancy, ageing and lots of other factors. Immunodeficiency is defined as inadequate functioning of the system. The severity varies resulting in differing types of infection. It can occur at multiple points across the immune reaction.

There are two sorts of immunodeficiency disorders:

Primary: The disorders which are usually present at birth such as genetic disorders and are usually hereditary. They typically become evident during infancy or childhood. However, some primary immunodeficiency disorders aren't recognized until adulthood. There are quite 100 primary immunodeficiency disorders. All are relatively rare.

Problems within the ordering that acts as a blueprint for producing the cells of the body [DNA] cause many of the system defects.

Rare conditions caused mostly by genetic defects of the system which will cause an abnormal production of antibodies [most frequently common variable immunodeficiency], abnormal cellular response, abnormal phagocytosis, deficiencies within the complement system, or immune dysregulation.

Secondary: These disorders generally develop later in life and sometimes result from use of certain drugs or from disorder, like diabetes or human immunodeficiency virus [HIV] infection. They're more common than primary immunodeficiency disorders.

Causes of secondary immunodeficiency include severe malnutrition, certain chronic diseases like diabetes, immunosuppressive medication or chemotherapy, certain cancers like leukemia and thus the absence of the spleen [sometimes the spleen must be removed due to trauma, for example].

Secondary immunodeficiency diseases are usually mixed [including an impaired specific immune reaction [humoral and cellular] and impaired nonspecific immune reaction [e.g., abnormalities of the complement system]. Key etiologic factors include medications [anticonvulsants, nonsteroidal anti-inflammatory drug drug drugs, immunosuppressive treatment, and chemotherapy], infections [HIV, measles, herpes simplex virus, bacterial infections [including mycobacteria], parasitic infections [malaria]], malignancy [chronic

leukemia, Hodgkin lymphoma, monoclonal gammopathies, solid tumors], metabolic disturbances [diabetes mellitus, kidney failure, liver failure, malnutrition], autoimmune diseases [systemic LE, atrophic arthritis, Felty syndrome], burns etc.,

Immunodeficiency diseases have traditionally been defined as defects within the development and performance of T and B cells, the first effector cells of specific cellular and humoral immunity respectively. However, it's become increasingly evident that innate immune mechanisms contribute greatly to host defense, either acting alone or by enhancing specific T and B cell responses.

Immunodeficiencies are often primary or secondary. Primary immunodeficiencies resulting in T-cell deficiency include DiGeorge syndrome, also referred to as congenital thymic aplasia, chronic mucocutaneous candidiasis, hyper-immunoglobulin M syndrome, and interleukin-12 receptor deficiency.

One of the foremost common signs of primary immunodeficiency has infections that are more frequent, longer lasting or harder to treat than are the infections of somebody with a traditional system.

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Citation: Zaini RG (2021) Ideaology of
Immuno deficiency diseases. J Transm Dis
Immun. Vol.5 No.2:29