ASSIGNMENT ON DIFFERENT TYPES OF BASIC IMMUNOLOGICAL DISORDERS

ONOH JESSICA MOSES

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1. IDENTIFY AND BRIEFLY EXPLAIN 5 PRIMARY IMMUNODEFICIENCY DISORDERS.

ANSWER;

* Selective IgA deficiencies
* Wiscott-Aldrich syndrome (WAS)
* Thymic hypoplasia
* Complement deficiencies
* Di-George syndrome

1. Selective IgA deficiencies; is an immune system condition in which you lack enough immunoglobulin A (IgA) a protein that fights infection (antibody). Signs and symptoms may be pneumonia, ear infections. Sinus infection, allergies, asthma and diarrhea.

Auto immune diseases in which the immune system attacks particular organs or tissues in the body can be found with selective IgA deficiency include rheumatoid arthritis, lupus, celiac diseases or inflammatory bowel diseases.

1. Wiscott-Aldrich syndrome (WAS); is a rare x-linked recessive diseases characterized by eczema, thrombocytopenia (low platelet count), thrombocytopenia) are caused by mutations of the same gene. Signs and symptoms may include autoimmune disorder in children, petechiae and bleeding. Spontaneous bleeds and bloody diarrhea.
2. Thymic hypoplasia: is a condition where the thymus is underdeveloped or involuted. Calcium levels can be used to distinguish between the following two conditions associated with thymic hypoplasia;

* 22q11.2 deletion syndrome: hypocalcaemia
* Ataxia telangiectasia; normal levels of calcium.

1. Complement deficiencies: this is an immunodeficiency of absent or suboptimal functioning of one of the complement system proteins. Hypocomplementenia may be used more generally to refer to decrease complement levels while secondary complement disorders means decrease complement levels that are not directly due to a genetic case but secondary to another medical condition. Signs and symptoms recurring infection can be caused by two types namely;

* Inherited; - properdin deficiency is an x-linked disorder that also causes susceptibility to Neisseria infections.
* C1-inhibitor deficiency or hereditary angioedema will have low c4 with normal c1 levels.
* Acquired; acquired Hypocomplementenia may occur in the setting of bone infections (osteomyelitis), infection of the lining of the host (endocarditis) systemic lupus erythematosus is associated with low c3 and c4 membrano-proliferative glomerulonephritis usually has low c3.

1. Di George syndrome; is also known as 22q11.2 deletion syndrome, is a syndrome caused by the deletion of a small segment of chromosome 22. While the symptoms can vary, the often include congenital heart problems, specific facial features, frequent infections, developmental delay, learning problems and cleft palate. Associated conditions include kidney problems, hearing loss and autoimmune disorders such as rheumatoid arthritis or grave’s diseases.
2. IDENTIFY AND BRIEFLY EXPLAIN 2 SECONDARY IMMUNODEFICIENCY DISORDERS

ANSWER;

1. AIDS; it is an abbreviation of ACQUIRED IMMUNO DEFICIENCY is the progression of HIV and it is also the last stage of HIV (HUMAN IMMUNODEFICIENCY VIRUS).

AIDS is acquired not an inherited virus which weakens the immune system and creates a deficiency of CD4+ cell in the immune system which is a group of illnesses taking place at the same time. It can be transmitted through various means e.g. direct contact with infected blood or through sexual intercourse.

AIDS can be caused by an RNA virus or retrovirus. People with AIDS indicator conditions (clinical category C) and those in categories A3 or B3 are considered to have AIDS it can be prevented by public health or personal strategies.

1. Diabetes mellitus; is defined as metabolic disorder caused by a factor of islet of Langerhans of the pancreas to produce insulin which is responsible for metabolism of sugar in the body. If there is lack of production of insulin it will lead to disorder of CHO, fats and proteins characterized by hyperglycemia, degenerative vascular changes and neuropathy.

Diabetes mellitus is grouped into four major classification namely;

* Type 1 diabetes mellitus (insulin-dependent) destruction of beta cell.
* Type 2 diabetes mellitus (non-insulin dependent) beta cells can still produce insulin but is not enough for the body function. I.e. insulin resistance with relative insulin deficiency.
* Gestational diabetes mellitus (GDM); increase blood glucose level during pregnancy.
* Diabetes mellitus associated with other conditions/ syndrome.