

A Short Communication on Hematology

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INTRODUCTION

Hematology (also spelled haematology) is the branch of medicine concerned with the study of the cause, prognosis, treatment, and prevention of diseases related to blood. The blood plays an essential roles in human health, which includes:

- Transporting vital substances, such as oxygen and nutrients, around the body.
- Helping to control the body's balance of water and acidity.
- Helping to fight off the disease.

The Haematology is responsible for the diagnosis and in the management of a wide range of benign and malignant disorders of the red and white blood cells, platelets and the coagulation system in adults and children. It also includes the treatment of blood disorders and malignancies, including types of hemophilia, leukemia, lymphoma and sickle-cell anemia. Hematology is a branch of internal medicine that deals with the physiology, pathology, etiology, diagnosis, treatment, prognosis and prevention of blood-related disorders.

The physicians specialized in hematology are known as hematologists or haematologists. Their routine work mainly includes the care and the treatment of patients with hematological diseases. The hematologists focus largely on lymphatic organs and bone marrow and may diagnose blood count irregularities or platelet irregularities. Hematologists treat organs that are fed by blood cells, including the lymph nodes, spleen, thymus and lymphoid tissue.

Areas of study

There are four major areas of study present within the hematology which are hemoglobinopathy, hematological malignancies, anemia and coagulopathy.

Hemoglobinopathy

It is the study of abnormality in the globin chains of hemoglobin molecules. In addition to sickle cell anemia, thalassemia (also known as erythropoiesis) is part of hemoglobinopathy.

Hematological malignancies

It is concerned with the diagnosis and treatment of cancers of the bone marrow, blood and lymph nodes. Myeloma is one type of hematological malignancy, along with leukemia and lymphoma.

The other disorders treated by a hematologist include arterial thromboembolism, deep-vein thrombosis and neutropenia.

Hematology tests

There are several hematology tests and procedures that are performed by the hematologists. They are as follows:

- **Complete blood cell count (or CBC):** This test can help to diagnose anemia, inflammatory diseases, and blood cancer. It can also help with monitoring the blood loss and infection.
- **Platelet count:** This test helps diagnose and monitor bleeding disorders.
- **Blood enzyme tests:** There are many types of these tests, which a doctor uses to help diagnose cardiovascular conditions, including heart attack.
- **Bone marrow biopsy:** This procedure can help diagnose and monitor anemia, thrombocytopenia, which involves having a low platelet count, and some cancers.
- **Blood transfusions:** This involves the body receiving healthy blood intravenously – through an IV.

A hematologist might have one of the following specialties.

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