Challenges associated with the effective management of hematological malignancies in developing countries

Osaro Erhabor
Usmanu Danfodiyo University, Nigeria

Hematological cancers or malignancies are a group of disorders that affect the production and function of blood cells. Many of these disorders arise from abnormal clonal proliferation of hematopoietic cells in the bone marrow. The hematopoietic stem cells in the bone marrow mature and develop into three distinct types of blood cells: erythrocytes, leucocytes and thrombocytes. Hematological cancers are often associated with suboptimal hemopoietic cell development and uncontrolled proliferation of abnormal blood cells in the bone marrow and infiltration into the peripheral blood thus significantly affecting the normal function of the cellular elements of blood (oxygen transport, fighting infection and prevention of hemorrhage and thrombosis). The commonest types of hematological malignancies include: Leukemia (associated with the abnormal clonal proliferation of abnormal white blood cells), Lymphoma (blood cancer associated with abnormal lymphocytes or lymphoma cells which often infiltrates the lymph nodes and other tissues and negatively affect the lymphatic system, immune system and function) and Myeloma (a hematological malignancy of the plasma cells which are the antibodies producing cell which play a role in humoral immunity). The incidence of hematological cancers in developing countries is on the increase particularly with an aging population. Hematological cancer survival rates are predictably inferior in developing compared to developed countries. In developing countries, advanced health care systems and technologies required for the effective management of patients are neither geographically nor economically accessible. One of the greatest challenges of modern medicine in developing countries is poor access to chemotherapeutic agents due to socioeconomic realities. There is also unavailability of modern diagnostic techniques required for molecular diagnosis and monitoring. There is suboptimal access to safe and adequate quantity of blood and specialized blood components (FFP, Platelet concentrate, irradiated and CMV negative blood products) required for the effective transfusion support of these patients. Other challenges include poor health infrastructure, lack of adequate qualified staff and suboptimal financial resources to support the running of an effective hemato-oncology service. There is need for the establishment of a collaborative network among hematologists, oncologists and biomedical scientists in developed and developing countries to facilitate the effective management of hematological malignancies in developing countries. There is need for pharmaceutical companies to become more humane by ensuring the availability, affordability and accessibility to life saving chemotherapeutics for the management of patients with hematological malignancies particularly in developing countries. There is need to investment in health infrastructure, personnel and research in developing countries to facilitate better hematological cancer diagnosis and management.

n_osaro@yahoo.com