?Disorders of White Blood Cells and Lymphoid Tissues ?The haemopoitic system produce all blood cells include their ?precursors and their derivatives ?The number of WBC in the peripheral circulation normally ranges from 5000– ?10000 cell/ ul. of blood.?Neoplastic Disorders of Haemopoitic System and ?Lymphoid Tissues ?The Neoplastic disorders include: ?–Leukemias ?–Lymphomas ?–Multiple Myeloma ?Leukemias ?Leukemias are malignant tumors of the haemopoitic stem cells ?characterized by diffuse replacement of bone marrow by neoplastic cells.?Treatment: ?In addition to removal the causative agent like drug, infection; current treatment ?administration of recombinant haemopoitic growth factors such as granulocyte colony ?stimulating factor (G–CSF) these factors stimulate neutrophils production by the bone ?marrow.?The leukemic cells proliferate mainly in bone marrow, circulate in the ?blood and infiltrate in the spleen, lymph nodes,?and other organs.?Lymphopenias are much less common; they are associated with congenital ?immunodeficiency diseases, or are acquired in association with specific clinical status, ?such as treatment with corticosteroids. About 50–70% of WBC is granulocytes (nutrophils, eosin, and ?basophile) about 20–30% are lymphocytes and about 2%– 8% are monocytes.Total ?WBC count reduces to 1000 cell/ ul. In some cases the total WBC count reduce to 200– ?300 cell/ ul. Reduction in the WBC number that leads to increase the susceptible to ?infections which may be sever enough to cause death.?Etiology and pathogenesis ?The mechanisms that cause neutropenia can be broadly divided into two ?categories: ?1).The removal of neutrophils from circulation is acceleration due to: ?–Inflammation – Idiopathic ?–Infection –Immune destruction ??Clinical Symptoms: ?The initial symptoms are malaise, chills, and fever, followed by marked weakness ?and fatigue.In acute cases are characterized by ?replacement of the bone marrow with immature cells and rapidly fetal.?The pathogenesis of clinical disease in all relates to the progressive accumulation in the ?bone marrow of lymphoblasts. Defect in neutrophils production due to: ?–Exposure to radiation – Cytotoxic drugs admistration ?2).Acute Lymphocytic Leukemia (ALL): This type of leukemia characterized by ?accumulation of lymphoblasts.?Sever reduction in the number of granulocytes in the blood is known agranulocytes. ?2). ?2).