

CHRONIC MYELOGENOUS LEUKEMIA..

◉ Diagnostic findings

- Low RBC count
- Low Hb, Hct
- Normal no of lymphocytes, normal or low no of monocytes
- Presence of philadelphia chromosome

CHRONIC LYMPHOCYTIC LEUKEMIA

- ◉ Common leukemia in adults
- ◉ Seen between 50 to 70 years of age
- ◉ Characterized by the production and accumulation of functionally inactive but long lived small mature appearing lymphocytes

- ◉ Lymphocytes infiltrate bone marrow, spleen and liver
- ◉ Lymph node enlargement present
- ◉ Increased incidence of infection (T cell deficiency)

CHRONIC LYMPHOCYTIC LEUKEMIA..

⦿ Clinical manifestations

- ✓ Chronic fatigue
- ✓ Anorexia
- ✓ Splenomegaly and lymphadenopathy
- ✓ Hepatomegaly
- ✓ Fever
- ✓ Weight loss
- ✓ Frequent infections

CHRONIC LYMPHOCYTIC LEUKEMIA..

◉ Diagnostic findings

- Mild anemia and thrombocytopenia with disease progression
- Total WBC count > 100,000 | micro litre
- Increase in peripheral lymphocytes
- Increase in the presence of lymphocytes in bone marrow

MANAGEMENT

○ Chemotherapy

- ✓ First stage : Induction therapy (attempt to induce or bring about a remission)

- ✓ Second stage: post induction or post remission chemotherapy
 - * intensification
 - * consolidation
 - * maintenance therapy

INDUCTION THERAPY

- ◉ Seeks to destroy leukemic cells in the tissues, peripheral blood and bone marrow in order to restore normal hematopoiesis

- ◉ Chemotherapeutic agents → cytarabine and anti tumour antibiotics (daunorubicin, doxorubicin, idarubicin)

POST INDUCTION CHEMOTHERAPY

◉ Intensification therapy

- Given immediately after induction therapy for several months
- Includes the same drugs as those used in induction but at higher dosages

POST INDUCTION CHEMOTHERAPY..

⊙ Consolidation therapy

- ✓ Started after a remission is achieved
- ✓ Consists of one or two additional courses of the same drugs given during induction or involve high dose therapy
- ✓ Purpose → eliminate remaining leukemic cells that may or may not be clinically evident

POST INDUCTION CHEMOTHERAPY..

⦿ Maintenance therapy

- ✓ Treatment with lower doses of the same drugs used in induction or other drugs given every 3 to 4 weeks for a prolonged period of time

MANAGEMENT....

- ◉ In addition to chemotherapy, corticosteroids and radiation therapy are used
- ◉ Total body radiation → used to prepare a patient for bone marrow transplantation
- ◉ In ALL prophylactic intrathecal methotrexate or cytarabine (given to decrease the chance of CNS involvement)
- ◉ CNS leukemia → cranial radiation

DRUG THERAPY

- ◉ Alkylating agents : Busulfan, chlorambucil, cyclophosphamide
- ◉ Anti tumour antibiotics : daunorubicin, doxorubicin, mitoxantrone, idarubicin
- ◉ Anti metabolites: cytarabine, 6-mercaptopurine, methotrexate, fludarabine
- ◉ Corticosteroids: Prednisone, betamethasone
- ◉ Nitrosoureas: carmustine
- ◉ Mitotic inhibitors: vincristine, vinblastine

⦿ BIOLOGICAL THERAPY

it is used to help the immune system to recognize and attack leukemia cells.

Eg: Rituximab, Gemtuzumab ozogamicin

⦿ TARGETTED THERAPY:

In targeted therapy uses drugs that attacks the specific vulnerabilities with in cancer cells.

Eg: imatinib

⦿ RADIATION THERAPY

radiation therapy uses X-Rays or other high energy beams to damage the leukemia cells and to stop their growth.

◉ STEM CELL TRANSPLANTATION

it is a procedure to replace diseased bone marrow with healthy bone marrow.

NURSING MANAGEMENT

- ◉ Assess the general condition of the patient
- ◉ Closely monitor the lab values
- ◉ Maintain good IPR with the patient
- ◉ Provide psychological support
- ◉ Instruct the patient to have a well balanced diet
- ◉ Monitor vital signs

- ◉ Include family members also in providing care
- ◉ Explain the side effects of chemotherapy and radiation therapy
- ◉ Administer antibiotics
- ◉ Maintain aseptic techniques while doing the procedures
- ◉ Proper isolation of the patient
- ◉ Provide health education to the patient

NURSING DIAGNOSIS

- ◉ Imbalanced nutrition less than body requirement related to inadequate nutritional intake and anorexia
- ◉ Activity intolerance related to weakness and imbalance between oxygen supply and demand
- ◉ Impaired oral mucous membrane related to low platelet count

NURSING DIAGNOSIS

- ◉ Ineffective therapeutic regimen management related to lack of knowledge of disease process, activity and medication

- ◉ Risk for infection related to bone marrow depression