SUMMARY

Non Hodgkin lymphomas are one of the most common malignant diseases worldwide, including more than 20 different malignant lymphoproliferative disease that originate from lymphocytes. Non-Hodgkin lymphoma is presently classified according to the universally accepted World Health Organization (WHO) classification which defines non-Hodgkin lymphoma subtypes according to morphology in combination with cell phenotype, genetic features, clinical features, race, geographic distribution and microbiologic features.

In 1994, a Revised Europeon- American Classification of Lymphoid Neoplasms (REAL) was proposed and presented by the International lymphoma study group . It distinguished three major categories of lymphoid malignancies which included B-cell , T-cell and Hodgkin disease. Non-Hodgkin lymphoma diagnosed clinically that patient may present with B-symptoms (fever, night sweats or loss of > 10% of body weight) or even in the absence of B-symptoms patient may report weakness, malaise, poor appetite and persistent Adenopathy may also be part of the initial presentation.

Non Hodgkin lymphoma also diagnosed by laboratory studies as complete blood count (CBC) which may shows anemia or pancytopenia secondary to bone marrow infiltration we may also find increase levels of serum uric acid, LDH and hypercalcemia, imaging studies play also a role in diagnosis as chest X-ray , CT scan, Bone scan, Gallium scans, PET scan and MRI. Also non-Hodgkin lymphoma diagnosed by Fine –needle aspiration, lymph node biopsy, bone marrow aspirate and biopsy, Immunophenotyping studies, Molecular biology and cytogenetic studies.

Avariety of factors have been identified as having a prognostic significance on response to treatment, relapse-free and overall survival in patients with lymphomas, these factors including age, performance status (PS), LDH ,Ann Arbor staging and number of extranodal disease sites.

There are around 287.000 cases of (NHL) in world per year .

More males than females are affected and incidence increase with age. Geographically NHL is most common in developed countries (52% of the total cases, and the seventh most common cancer in more developed countries).

The rates of NHL in Egypt (13.5/100.000) could be considered one of the highest rates in the world exceeding that of the US SEER. Patients with HIV/AIDS, or who have received immunosuppressant therapy, have a higher risk of developing NHL. Viral infections such as HIV, HTL-1, HCV and EB virus also associated with NHL. Infection of the stomach with Helicobacter pylori is associated with gastric lymphoma. Agricultural work with possible exposure to pesticides and occupational exposure to solvents or fertilizers have to be confirmed as causes of NHL.

There is an increased risk of NHL among persons with a family history of lymphoma or hematological cancers.

Some studies showed that lifetime use of antibiotics was positively associated with risk of NHL and also there is a greatly increased relative risk of NHL in conjunction with potent immunosuppressive therapy following renal, liver, heart or bone marrow transplantation.

But several allergic conditions may be associated with a reduced risk of NHL, also people who drink alcoholic beverages have a lower risk of NHL than those who do not.

Most reports have shown no excess risk of NHL overall in tobacco or cigarette smokes but there are several exceptions, that there is a specific association with risk of the common follicular NHL subtype, also there is increase risk of NHL with use of hair dyes especially in women and for dark dye colors.

There is inverse associations between NHL risk and higher intakes of all vegetables combined, but particularly with green leafy and cruciferous vegetables, and with higher intakes of the nutrients lutein , zeaxanthin and zinc.