

Facts about Non-Hodgkin's lymphoma

DR MD MOFAZZEL HOSSAIN

Non-Hodgkin's Lymphoma (NHL) refers to a group of cancers arising from lymphatic system of the body which help us fight infection and diseases.

The cancer originates in the lymphocytes (a type of white blood cell) and gradually spreads throughout the other components of this system like lymph node, spleen, tonsils and other lymphoid tissues in the gut, respiratory tract and bone marrow.

Lymphocytes are mainly located at lymph node and hence it is called most vital part of this system. They are mostly grouped in armpit, neck, groin, near elbow and in abdomen which are only felt manually when they are enlarged up to a sizeable dimension due to infection or cancer. Lymphocytes are also found in many organs indicating that lymphoma may originate also from organs not otherwise known as lymphoid organs.

Cause

The exact cause of transformation of lymphoid cells into cancer is not known, but several associated conditions are considered as causative factors in lymphoma.

Infections with viruses like Epstein Bar Virus, HIV and

bacteria e.g. gastric lymphoma caused by a bacterium called Helicobacter pylori.

Infection by these organisms may give rise to genetic abnormalities. Immune deficiency state either congenital or acquired is associated with higher incidence of NHL.

Diagnosis

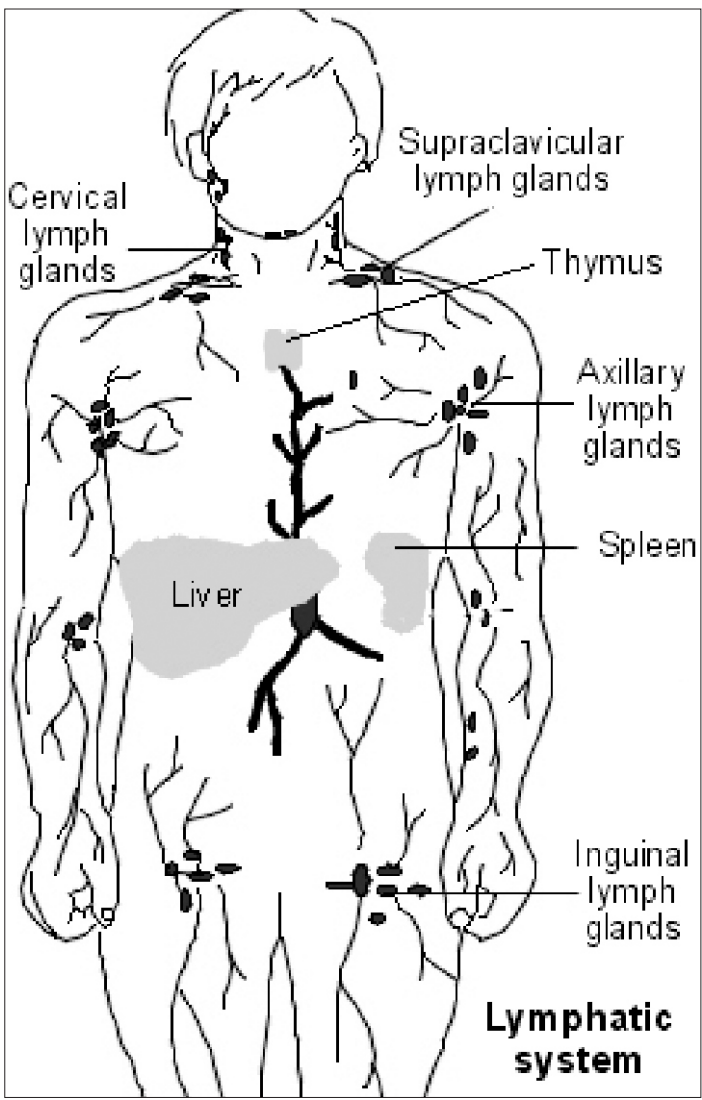
Diagnosis of NHL is simple when patient presents with enlarged lymph node in accessible parts of body such as neck, armpit or groin.

Excision and biopsy is the standard procedure, FNAC (Fine needle aspiration cytology) as a means of initial diagnosis is not recommended which may be misleading.

If the patient has lymph node enlargement only inside the abdomen then diagnosis may require operative procedure known as laparotomy (opening up of abdomen) to get tissue for histopathological examination.

However, in such cases ultrasonography or CT scan guided FNAC may provide some clue to the diagnosis even if it cannot confirm.

When only extra-nodal organs are involved, biopsy or FNAC may be necessary to confirm the diagnosis of NHL. About 10-20 percent of patients present without evident lymph node



enlargement posing a very difficult diagnostic problem. In such patients imaging studies may aid to discover some intra-abdominal lymph node enlargement or lesions in extra-nodal organs providing clues for diagnostic exploration.

To determine the extent of the disease, staging of cancer apart from physical examination of patient is needed. Staging dictates the modality of treatment and indicates the prognosis of disease.

Treatment

Treatment of NHL depends on the histopathological type and extent of disease.

High grade NHL is highly sensitive to both chemotherapy and radiotherapy and prognosis is good. Some factors like age, co-morbid illnesses, general condition (also known as performance status), organ dysfunctions not related to lymphoma are important for taking into consider before embarking into the toxic chemotherapy.

Radiotherapy used to play important role in the management of NHL. Even now it plays major role in the treatment of localised low grade NHL (stages 1 and 2).

The gold standard for treatment of high grade NHL is chemotherapy with combination of

drugs. An effective and latest option called immunotherapy is recommended now and yields better results.

Many patients who are either unfit or unlikely to tolerate chemotherapy because of multiple organ dysfunctions, immunotherapy is the treatment of choice for them.

With the given information that early stage of disease goes into remission mostly and in many cases can be cured. Our target should be to detect the disease at earlier stage, confirm the diagnosis and commence appropriate therapy as early as possible.

Efforts should be made to alleviate undue fear and apprehension about chemotherapy and its side effects such as loss of hair, vomiting etc. which are all temporary and mostly controllable with newer medicine.

This can be done by open discussion and providing detail information about the disease and its treatment modalities. Awareness about cancer, its early warning signs and the fact that most of the recent therapies are available in our county, will reassure the cancer patients.

Dr. Lt. Col. Md. Mofazzel Hossain (Retd) is an Associate Professor of Oncology, Bangladesh

Medical Update

Insulin pill hope for diabetics

Diabetes patients could soon be able to take a pill to control their condition instead of repeated injections, researchers have claimed



Some diabetics have a fear of needles

BBC News

Experts at the Robert Gordon University in Aberdeen have found insulin can be covered by a coating which means it could eventually be taken orally.

Currently, the drug has to be injected so it is not broken down before it reaches the bloodstream. The development offers hope to patients with a phobia of needles.

The research, presented at the British Pharmaceutical Conference in Manchester, shows that the coating means that insulin is protected from enzyme breakdown.

Dr Colin Thompson, of the university's School of Pharmacy, said: "We have been working on developing an oral insulin because studies show that a great many people with diabetes fear injections."

"Being able to take insulin orally would have a significant impact on the lives of many of

these patients - not just eliminating the need for injections, but also offering a much more convenient form of treatment."

People with type 1 diabetes rely on insulin injections. Often, type 2 diabetes can be controlled by diet alone or other oral diabetes drugs. It is only as the disease progresses that insulin may be needed.

Type 2 diabetes is far more common than type 1.

Other scientists have also been looking at ways to deliver insulin by mouth without it being degraded in the stomach.

Taiwanese investigators are using a chemical found in shrimp shells to protect the drug.

Inhaled insulin is already available to those diabetics with a proven needle phobia or people who have severe trouble injecting.

New device makes cataract surgery easier

A new surgical device called a pulsed electron avalanche knife (PEAK-fc), which cuts tissue with short bursts of electric pulses, makes it easier to perform cataract surgery in complicated cases, according to a report in the British Journal of Ophthalmology.

Cataracts develop as the lens of the eye becomes clouded. The risk of this common eye problem increases with age and with exposure to other risk factors such as UV light exposure, smoking, and diabetes.

Blurred vision, blare, and cloudy spots are common symptoms. If indicated, cataracts can be treated by replacing the natural lens with an artificial one.

In the new study, Dr. Siegfried G. Priglinger from Ludwig-Maximilians-University, Munich, Germany and colleagues evaluated the

safety and effectiveness of PEAK-fc in 20 patients undergoing complicated cataract surgery.

The operations were performed successfully in most patients. Moreover, unlike conventional techniques, use of PEAK-fc caused very little damage to healthy tissues surrounding the target area. No complications related to the device were noted.

"PEAK-fc was successfully used for a variety of surgical maneuvers commonly encountered in patients undergoing complicated (cataract) surgery," Priglinger and colleagues conclude. "PEAK-fc allowed for surgical cutting in a very precise manner, resulting in...minimal collateral damage at the edges of the cut."

Source: British Journal of Ophthalmology

Did You Know



Smokeless tobacco use linked to throat cancer

A study from India shows that use of smokeless tobacco in the form of chewing tobacco or snuff is associated with an increased risk of developing cancer in the "hypopharynx" — the area at the back of the throat immediately above the larynx, or voicebox.

The increasing popularity of smokeless tobacco is a cause for concern, Dr. Amir Sapkota and colleagues write in the October 15th issue of the International Journal of Cancer.

Chewing tobacco is consumed in the form of pan, khaini, guthka, mawa or zarda — all of which contain tobacco and slaked lime as their main components. Snuffing of tobacco, alone or mixed with slaked lime (naswar) either through nose or mouth, is also popular, they explain.

Sapkota and colleagues studied 1,024 patients with various head and neck cancers and 718 healthy controls from four major cancer centers in India.

Among non-smokers, smokeless tobacco use was

associated with a significantly higher risk of cancers of the hypopharynx but not of cancers of the larynx, the researchers report.

The odds ratio for hypopharyngeal cancers was 2.85 among tobacco snuff users, which increased to 3.34, 3.58 and 4.59 among those chewing tobacco in the form of pan, zarda and guthka, respectively.

"Direct and prolonged contact is necessary for the effect of chewing tobacco to manifest," Sapkota and colleagues postulate. This could probably explain the lack of association between smokeless tobacco and cancers of the larynx, they suggest.

Sapkota and colleagues noted, "The increasing usage of smokeless tobacco products combined with the ill-perceived notion that it is a relatively safe product compared to cigarettes, may pose a substantial threat to public health in the coming years."

Source: International Journal of Cancer

PALLIATIVE CARE

Supporting and giving ease to the terminally ill patients

MAHBUBA ZANNAT

When Abdul Matin (not a real name) came to know that he had "Cancer", his whole world fell apart. It was really hard for him to believe it and immediately he began considering himself as the most unfortunate and isolated man on the earth.

The disease brought curse and misery to the family, as the 45-year-old man with four children lost his job, sold off the only piece of land he had to bear the expenses of the costly investigations and injections along with other paraphernalia.

But as the days passed by, the condition of Mr. Matin gradually deteriorated. His mental agony

Medical University (BSMMU).

"Whereas the valid, simple and relatively inexpensive palliative care approach and models that are acceptable and maintainable at the community level do exist in this world, but unfortunately the service is non-existent in Bangladesh", he told The Daily Star elaborating the success story of the Neighborhood Network Of Palliative Care (NNPC) services offered in the Keralla state of India.

Two thirds of those in need of PC live in developing countries. According to the World Health Organisation (WHO), there are around twelve lakh cancer patients in Bangladesh and every year further 2.25 lakh new patients are added to this pool.

cancer is potentially curable. Realistically palliative care remains the only option for majority of the cancer patients in Bangladesh as same as in the developing world.

Though this essential service is non-existent in Bangladesh so far, at least in 13 countries in the world this is treated as an individual subject. Singapore has a developed palliative care base. Asia Pacific Hospice Palliative Care Network (APHPCN) is based in Singapore.

While talking about PC, Medical Director of West Clinic Excellence Cancer Centre Dr Steven Tucker told the Daily Star that the service is widely available in Singapore and everyone involved in cancer treatment knows and utilises the knowledge and skill gained in palliative medicine so far worldwide.

"In Singapore, palliative care goes hand in hand with curative cancer treatment approach" he said adding that it was first formalised in the National University Hospital.

"The great certainty of human existence is that we all are born to die. Palliative care has much to offer in easing our passage at the end of life and it has the potential to do this for many million people around the world. It is a moral responsibility of the mankind to provide care to those who leave life, elderly people, the terminally ill people — those dying slowly of cancers and AIDS. The same care and attention that we give to those who enter life," said Graham Arthurs, a palliative care consultant from Wrexham, UK.

Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

It also helps the family to cope during the patient's illness and in their own bereavement using a team approach to address the needs of these patients and their families.

HEALTH TIPS

10 symptoms not to ignore

STAR HEALTH DESK

You already know that the obvious signs and symptoms — chest pain, abdominal pain or unexplained bleeding — are generally good reason to seek immediate medical care. But, the not-so-obvious symptoms may leave you questioning whether you need to see a doctor.

Here is a list of warning symptoms. Some of the symptoms here may seem to be surprising. But, be aware of the significance of these symptoms and when it is important to seek timely medical care. It could make a difference in the quality of life and may even save your life.

Don't ignore the symptoms

Don't ignore the following 10 signs and symptoms — some of which are not obviously alarming. But, trust that your body informs you of its needs. While some messages are more urgent than others, milder but persistent symptoms may also signal trouble.

1. Unexplained weight loss

If you find you are losing excessive weight without intending to do so, see a doctor. Unintentional excessive weight loss is considered to be a loss of more than:

- 5 percent of your weight within one month
- 10 percent of your weight within six to 12 months

An unexplained drop in weight could be caused by a number of conditions, such as an overactive thyroid (hyper-thyroidism), depression, liver disease, cancer or other noncancerous disorders, or disorders that interfere with how well your body absorbs nutrients (mal-absorption disorders).

2. Persistent fever

If you have a normal immune system and you are not undergoing treatment, such as chemotherapy for cancer, a persistent low-grade fever — over 100.4°F — should be checked if it lasts for a week or more. If you have a fever with shaking chills, or a high fever — greater than 103°F — or if you are otherwise severely ill, see a doctor as soon as possible.

If you have an immune system problem or take immune-suppressing drugs, fever may not be a reliable warning sign and doctor or oncologist can tell you what would signal a need for an evaluation.

Persistent fever can signal

hidden infections, which could be anything from a urinary tract infection to tuberculosis. At other times, malignant conditions — such as lymphomas — cause prolonged or persistent fevers, as can some medications and conditions, and reactions to certain drugs.

Fever is common with treatable infections, such as urinary tract infections. But if a low-grade fever persists for more than two weeks, check with your doctor. Some underlying cancers can cause prolonged, persistent fever, as can tuberculosis and other disorders.

3. Shortness of breath

Feeling short of breath — beyond the typical stuffy nose or shortness of breath from exercise — could signal an underlying health problem. If you ever find that you are unable to get your breath or that you are gasping for air or wheezing, seek emergency medical care. Feeling breathless with or without exertion or when reclining also is a symptom that needs to be medically evaluated without delay.

Causes for breathlessness may include chronic obstructive pulmonary disease, chronic bronchitis, asthma, heart problems, anxiety, panic attacks, pneumonia, a blood clot in the lung (pulmonary embolism), pulmonary fibrosis and pulmonary hypertension.

4. Unexplained changes in bowel habits

See a doctor if you have any of the following:

- Severe diarrhea lasting more than two days
- Mild diarrhea lasting a week
- Constipation that lasts for more than two weeks
- Unexplained urges to have a bowel movement
- Bloody diarrhoea
- Black or tarry-colored stools

Changes in bowel habits may signal a bacterial infection — such as campylobacter or salmonella — or a viral or parasitic infection. Among other possible causes are inflammatory bowel disease and colon cancer.

5. Mental status changes

Immediate medical evaluation is warranted if any of the following occur:

- Sudden or gradual confused thinking
- Disorientation
- Sudden aggressive behavior
- Hallucinations in someone who has never had them

Changes in behavior or thinking may be due to infection, head