Diffuse Large Cell Lymphoma

Your doctor has just diagnosed that you have a "diffuse large cell lymphoma".
This is a type of non-Hodgkin's lymphoma (NHL), a disease linked to malign proliferation of cells within the immune system. These cells are found especially in the lymphatic ganglions, the lymph, the spleen and the bone marrow.
In their normal state, these cells help defend the organism against foreign agents (bacteria, viruses, etc)

The occurrence of a non-Hodgkin's Diffuse large B or T cell lymphoma is linked to uncontrolled multiplication of abnormal B or T lymphocytes. B lymphocytes have as their role the production of antibodies. T lymphocytes are responsible for cell mediated immunity (they destroy foreign agents themselves or mobilise other cells to perform this function). The accumulation of malignant cells ends up forming one or more tumours. These develop generally in the lymphatic ganglions. But they may also affect other organs, in particular the spleen and the bone marrow.

Diffuse large cell lymphomare non-Hodgkin's lymphomas (NHL), one of around thirty types noted to date. They are the most frequent NHLs, as they represent about 40% of all cases of this kind of disease. Latest estimates suggest that 3000 to 4000 new cases of diffuse large cell lymphoma are diagnosed each year in France.
The frequency of this disease increases with age. At the time of diagnosis, the average age of patients is around 60.
The causes for non-Hodgkin's diffuse large cell lymphomas remain unknown in the great majority of cases. Different risk factors likely to increase susceptibility to this disease have been identified: for instance, infections of certain viruses, such as the AIDS virus, hepatitis C or the EBV virus (also responsible for glandular fever). Environmental factors (especially exposure to pesticides) also figure among contributory factors. Finally, immunity deficiency following an organ transplant can also lead to susceptibility to this kind of lymphoma.
Diffuse large cell lymphoma is neither hereditary nor contagious.

Doctor's notes :

Certain treatments may lead to sterility, especially where men are concerned. So sperm conservation is offered after the diagnosis.

The first symptoms

The most frequent sign at the outset of the disease is an increase in the size of one or more ganglions. Rarely painful, even when they become apparent, these are often to be found in the neck, or the armpits, but may be present in other parts of the body, in particular the chest or the abdomen.

When they are enlarged, these ganglions may cause various disorders. So enlarged ganglions around the abdomen are likely to produce an abdominal problem, bloating or back pain. In the area of the chest they may cause respiratory problems. Other more general non-specific symptoms may also show, especially a temperature, an unexplained weight loss, abundant night sweats or fatigue. Diffuse large cell lymphomas are among the NHLs called "aggressive", meaning that they develop rapidly, in a matter of a few weeks or months.

Diagnosis

An increase in volume of one or more ganglions, along with the observable clinical signs, is symptoms that indicate a lymphoma. The diagnosis for the latter is arrived at from a biopsy, involving the removal of one of the enlarged ganglions. The cells contained in the sample are examined under the microscope by an anatomo-pathologist, a doctor specialised in the study of tissues. The morphological and immunological characteristics of the abnormal cells, and the way in which they are arranged, enable the diagnosis of a diffuse large cell lymphoma or that of another form of NHL to be confirmed.

Other tests are then carried out to determine the spread of the disease and its stage of development. Several scans or x-rays are taken especially in search of "deeper" effects, i.e. those than cannot be detected in the course of a clinical examination. As a general rule, the doctor will prescribe a chest X-ray, and an ultrasound scan of the neck, chest, abdomen and pelvis. Positron emission scan (PET scan) is a test often used to detect all the active seats of the disease. Blood tests are also carried out, especially to measure the elements that mark the progress of the disease. Depending on the state of health of the individual patient, other tests may be requested to complete the assessment.

Any treatment is likely to produce unwanted side-effects and may present risks. Your doctor will inform you and will tell you which signs to look out for before you start the treatment suggested

Participating in a clinical trial

The best way to contribute to the improvement of disease management is to treat patients in the context of clinical trial. If your doctor suggests this could apply to you, he will explain its purpose, protocol, expected benefits, potential risks and will give you an information leaflet.

Participating in a trial of course means you will first have to give your written informed consent.

Useful contacts:

- **Secretarial / appointment:**
- **Nursing consultation:**
- **Consulting psychologist:**
- **Social worker:**
- **In an emergency:**

Treatment

The way in which follicular lymphomas are treated depends particularly on the stage of development of the disease and the risk factors for progression evaluated during the assessment.
In all cases, treatment has to be started quickly. This treatment will comprise chemotherapy associated with immunotherapy in the case of large B cell lymphomas.
Chemotherapy is based on the use of medicines that attack the diseased cells, either by destroying them or by blocking their growth.
Immunotherapy consists of administering monoclonal antibodies specifically aimed at the diseased cells in the case of B NHLs. This type of medicine imitates natural antibodies and brings about the death of the cells they are targeting.
The treatment is administered in the form of courses repeated every fourteen or twenty-one days. The choice of medicines and the number of courses are determined depending on the characteristics of the disease, and especially its degree of spread. The treatment enables more than 50% of patients to be cured. The cure comes through obtaining a remission, i.e. the disappearance of all the clinical, radiological and biological signs of the lymphoma. The length of the remission is variable from one patient to the next and a relapse may occur, most often in the first two years of a remission period. A relapse or a recurrence of the disease results in the reappearance of the clinical symptoms and biological signs of the disease. In this instance, a new course of treatment needs to be put in place. This treatment will be suited to the recurrence as well as the general state of health of the patient. Generally, it will initially be based on a new course of chemotherapy associated with immunotherapy using monoclonal antibodies. It is thus possible to obtain a new period of remission. In cases where the NHL is at an advanced stage, an intensive chemotherapy course with very strong doses may be suggested, followed by a grafting of root cells (see box to the left above) in order to reinforce the remission.

Follow-up

When remission is achieved following treatment, it is essential to see a specialist doctor at regular intervals. This follow-up generally includes blood tests along with a complete clinical examination at the time of the appointment. This enables the stability of the remission to be checked. After several years of remission, one may conclude that the disease is cured.
In the case of a relapse, the follow-up enables this to be detected early and the most appropriate treatment to be put in place most quickly.
The rhythm of the follow-up is matched to the needs of each individual patient.