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MYELODYSPLASTIC SYNDROME - a patient's guide

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Overview

Myelodysplastic Syndrome (MDS) is a disorder of the bone marrow that affects the blood.

It usually occurs in the elderly, and more often in men than in women.

It may cause no symptoms, or may be associated with pallor and fatigue.

It is not a cancer, but over time a proportion of cases may change and develop into a leukaemia (blood cancer).

What is it?

The myelodysplastic syndrome (MDS) is a blood disorder in which blood cells are not formed properly in the bone marrow. So a problem in the functioning of the bone marrow is the essential cause of the myelodysplastic syndrome.

The bone marrow, which normally replenishes blood continuously with new cells, becomes crowded with cells in their early stages of production, while the number of mature blood cells released into the circulation is reduced. The red blood cells (erythrocytes), which are the type of cell made in the largest number by the bone marrow, are particularly affected.

Although the formation of cells is abnormal, the myelodysplastic syndrome is not considered a cancer, as it is not due initially to proliferation of a single kind of cell. However some people with the myelodysplastic syndrome go on to have further changes in their bone marrow, with rapid multiplication of one type of cell, and develop a cancer of the blood system such as leukaemia, an abnormal growth of white blood cells.

Less than a third of patients with MDS can be expected to progress to a related malignancy (cancer).

The reason for the abnormal functioning of the bone marrow in the myelodysplastic syndrome is not usually known. Sometimes previous radiation exposure or use of strong drugs for treatment of other medical conditions (such as chemotherapy for a previous cancer) are suspected.

Diagnosis:

The reduction in number of red blood cells released into the blood stream can lead to the detection of myelodysplasia in a person when their blood is tested (a full blood count).

The test may be done because anaemia (a lack of red blood cells) is suspected, perhaps because a patient has been tired or pale, or may have been taken for some other reason and the changes of myelodysplasia are found unexpectedly. Myelodysplasia usually occurs in those over 50 or 60 years old, and in men more often than in women.

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What are the symptoms?

Myelodysplastic syndrome may have no symptoms and be detected only by a blood test. If circulating red blood cells are greatly decreased in number there may be fatigue and pallor due to anaemia.

Less commonly, lack of other cell types may produce symptoms, namely increased bruising and bleeding due to lack of platelets (small cells important for blood clotting), or fevers and infection due to a reduction in the number of white blood cells.

Sometimes there may be a feeling of abdominal fullness due to enlargement of the spleen, or nonspecific symptoms of poor appetite and weight loss.

What is the treatment?

MDS may not require treatment itself, as it may cause no symptoms or problems for the patient. No treatment has been found to be particularly beneficial for patients.

However, the blood should be retested at intervals to check for any change into a malignancy such as leukaemia. The interval between such tests cannot be given as a general rule, but should be individualised in each case. If leukemia develops, specific treatment, usually in the form of chemotherapy, should be undertaken with the advice of a haematologist (blood specialist).

Bone marrow transplantation as a treatment for MDS is under investigation, particularly in the USA.