DIAGNOSED WITH

MYELOMA?

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What is MYELOMA?

Myeloma is a disease of the blood-forming cells. Your blood contains 3 types of cells:

Red blood cells carry oxygen

Platelets help clot blood

White blood cells protect you against infection

Blood cells are made in the spongy red part of the bone marrow. Myeloma is a cancer that develops and grows in the bone marrow.

Myeloma arises from plasma cells, a type of white blood cell which normally makes antibodies in order to prevent and fight infection. In Myeloma, plasma cells become cancerous.

When there is a build-up of cancerous cells in the bone marrow it prevents the production of normal blood cells. This can cause anaemia (low red blood cells), bleeding (low platelets) and infection (low white blood cells).

The cancerous plasma cells do not produce helpful antibodies but produce paraproteins (non-functioning antibodies) which can harm the kidneys and make the blood too thick.

The cancerous plasma cells grow everywhere where there is red bone marrow (including the pelvis, spine, hips, shoulders and ribs). These cells produce chemicals that can damage the bones causing holes, fractures and collapse of vertebrae in the spine.

Whilst a specific cause of Myeloma is still unknown there are risk factors that can increase ones chance of getting Myeloma.

Common Signs and Symptoms

SYMPTOMS DUE TO PLASMA CELLS INVADING BONE MARROW

ANAEMIA
A low red blood cell count can cause tiredness, palpitations and shortness of breath

INFECTIONS
Infections due to low white blood cells and abnormal antibodies

BLEEDING / BRUISING
Easy bruising or bleeding due to low blood platelets (poor blood clotting)

SYMPTOMS DUE TO KIDNEY DAMAGE

SWELLING OF BODY

SHORTNESS OF BREATH

PASSING LESS OR NO URINE

SYMPTOMS DUE TO PLASMA CELLS DAMAGING THE BONE

BACK PAIN / BONE FRACTURES
Including vertebrae collapse, unexplained fractures

NERVE COMPRESSION
Pressure on spinal cord or nerves may cause weak legs or loss of urine / stool control

HIGH CALCIUM
Can cause constipation, nausea, passing more urine, abdominal pain or confusion

It is important to note that Myeloma may not cause symptoms in the early stages. Also, many of these symptoms are not unique to Myeloma, as they are present in many chronic illnesses.

Tests done to diagnose

BLOOD TESTS

Initial tests screen for anaemia, abnormal protein levels, kidney function, and calcium levels. Further blood tests may be done to predict prognosis and track response to treatment.

X-RAYS / OTHER SCANS

Determine the presence, severity and location of bone damage

BONE MARROW BIOPSY

Determines the presence and percentage of abnormal plasma cells

Main types of diseases with abnormal plasma cells and paraproteins

MGUS
(Monoclonal Gammopathy of Undetermined Significance)

Paraprotein in the blood but no other features of myeloma. Does not need treatment due to a low risk of progression to Myeloma. It is monitored every 6 - 12 months.

SMOULDERING MYELOMA

Higher blood paraprotein and increased plasma cells in the bone marrow but no other features of myeloma. Has higher risk of progression to myeloma. Smouldering Myeloma usually does not need treatment but is closely monitored, usually every 3 to 6 months, and will be treated if needed.

SYMPTOMATIC MYELOMA

Increased plasma cells in the bone marrow or abnormal plasma cells elsewhere, and high paraprotein in the blood. This together with evidence of anaemia, bone disease, high calcium or kidney damage. Symptomatic myeloma requires treatment.

Possible side effects of treatment

Treatment of Myeloma

If you are diagnosed with Myeloma, your treatment team will discuss treatment options and details thereof with you.

Treatment of your symptoms / complications

This includes pain control, management of infections, high calcium, fractures, spinal cord or other nerve compression, and optimisation of kidney function. This is done with medications, radiation therapy and surgery.

Specific treatment to control Myeloma

There have been many new developments in managing Myeloma and the ability to control the disease is improving.
Whilst Myeloma isn't considered curable, with treatment it can often be controlled for many years.

Treatment is planned depending on whether the patient will be able to have a bone marrow transplant or not. Bone marrow transplantation is a physically demanding procedure and is generally reserved for patients younger than 65 who are otherwise well.

Patients who are eligible for transplant generally get 4-6 cycles of combination treatment including steroids, chemotherapy and a drug developed specifically for Myeloma. If the cancer responds well, their own bone marrow stem cells will be collected and they will have a stem cell transplant. After the transplant patients may get more treatment to maintain disease control. A second transplant may be done at a later date.
Patients who are ineligible for transplant will receive combination treatment which will not include a stem cell transplantation. If patients relapse after treatment, they will receive further treatment to try to control the disease again and to relieve symptoms.

Please note:
The information provided here is meant to be a general overview and should not be used as a substitute for professional medical advice. If you have any questions or concerns about your health, please consult with a healthcare professional.

For more information:
www.bloodsa.org.za

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Bristol Myers Squibb Foundation

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