

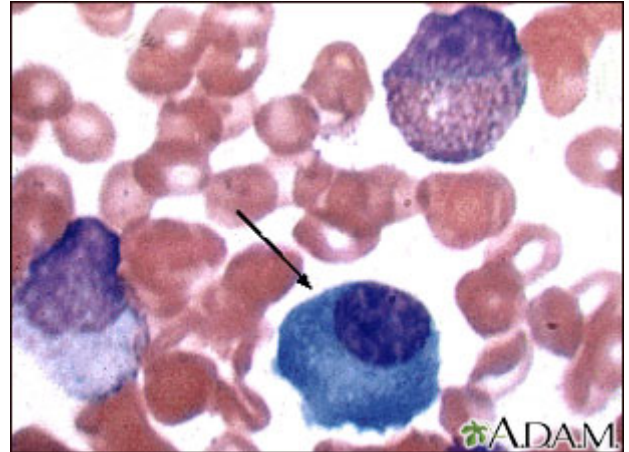
Waldenström macroglobulinemia

Definition

Waldenström macroglobulinemia (WM) is a cancer of the B lymphocytes (a type of white blood cell). WM is associated with the overproduction of proteins called IgM antibodies.

Alternative Names

Waldenström macroglobulinemia;
Macroglobulinemia - primary;
Lymphoplasmacytic lymphoma;
Monoclonal macroglobulinemia

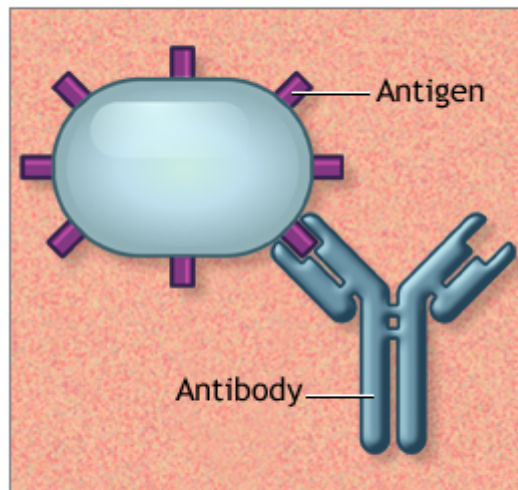


Causes

WM is a result of a condition called lymphoplasmacytic lymphoma. This is a cancer of the white blood cells, in which the B immune cells start dividing rapidly. The exact cause of too much production of the IgM antibody is unknown. Hepatitis C may increase the risk of WM. Gene mutations are often found in the malignant B cells.

Production of excess IgM antibodies can cause several types of problems:

- Hyperviscosity, which causes the blood to become too thick.. This can make it harder for blood to flow through small blood vessels.
- Neuropathy, or nerve damage, when the IgM antibody reacts with nerve tissue.
- Anemia, when the IgM antibody binds to red blood cells.
- Kidney disease, when the IgM antibody deposits in kidney tissue.
- Cryoglobulinemia and vasculitis (inflammation of the blood vessels) when the IgM antibody forms immune complexes with cold exposure.



An antibody is a protein produced by the immune system in response to the presence of an antigen.

ADAM.

WM is very rare. Most people with this condition are over 65 years of age.

Symptoms

Symptoms of WM may include any of the following:

- Bleeding of the gums and nosebleeds
- Blurred or decreased vision
- Bluish skin in the fingers after cold exposure
- Dizziness or confusion
- Easy bruising of the skin
- Fatigue
- Diarrhea
- Numbness, tingling, or burning pain in the hands, feet, fingers, toes, ears, or nose
- Rash
- Swollen glands

- Unintentional weight loss
- Vision loss in one eye

Exams and Tests

A physical examination may reveal a swollen spleen, liver, and lymph nodes. An eye exam may show enlarged veins in the retina or retinal bleeding (hemorrhages).

A CBC shows a low number of red blood cells and platelets. Blood chemistry may show evidence of kidney disease.

A test called serum protein electrophoresis shows an increased level of the IgM antibody. Levels are often higher than 300 milligrams per deciliter (mg/dL), or 3000 mg/L. An immunofixation test will be done to show that the IgM antibody is derived from a single cell type, (clonal).

A serum viscosity test can tell if the blood has become thick. Symptoms usually occur when the blood is four times thicker than normal.

A bone marrow biopsy will show increased numbers of abnormal cells that look like both lymphocytes and plasma cells.

Additional tests that may be done include:

- 24-hour urine protein
- Total protein
- Immunofixation in urine
- T (thymus derived) lymphocyte count
- Bone x-rays

Treatment

Some people with WM who have increased IgM antibodies do not have symptoms. This condition is known as smoldering WM. No treatment is needed other than careful follow-up.

The treatment aim in people with symptoms is to decrease the symptoms and the risk of developing organ damage. There is no current standard treatment. So your provider may suggest that you participate in a clinical trial.

Plasmapheresis removes IgM antibodies from the blood.. It also quickly controls the symptoms caused by blood thickening.

Medicines may include corticosteroids, a combination of chemotherapy medicines and the monoclonal antibody to B cells, rituximab.

Autologous stem cell transplant may be recommended for some people with otherwise good health.

People who have a low number of red or white blood cells or platelets may need transfusions or antibiotics.

Outlook (Prognosis)

The average survival is about 5 years. Some people live more than 10 years.

In some people, the disorder may produce few symptoms and progress slowly.

Possible Complications

Complications of WM may include:

- Changes in mental function, possibly leading to coma
- Heart failure
- Gastrointestinal bleeding or malabsorption
- Vision problems
- Hives

When to Contact a Medical Professional

Call your provider if symptoms of WM develop.

References

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Review Date: 4/12/2018

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