

Renal Services

Amyloid

What is Amyloid?

Amyloid is a protein which can be deposited in tissues where it can interfere with the normal activity of the body.

What does it do to the kidneys?

When we look at a sample of a kidney taken in a biopsy (a small piece removed with a needle) under a microscope, deposits of amyloid can be seen in the blood vessels and in the kidney. It causes filtering problems, which cause protein loss with fluid retention and ultimately may lead to kidney failure.

Protein Loss with Fluid Retention

The obvious sign of this is ankle swelling. In severe cases the swelling may affect the legs up to the thighs, with fluid around the hands and face. Fluid can collect internally, causing abdominal swelling or breathlessness.

Abnormal Kidney Function

This is normally detected by blood tests which measure the chemicals the kidney removes from the body. Symptoms of kidney failure include itching and tiredness and being sick. Not all patients with amyloid develop kidney failure.

How can it affect my body?

This is different from patient to patient, so that no two people with amyloid have exactly the same problems. Amyloid can affect many parts of the body.

Here is a list of some of the problems that may occur:

Skin

Amyloid can affect the small blood vessels underneath the skin.



Patient Information

Amyloid makes these blood vessels fragile, and bruising may occur very easily, particularly on the forearms or around the eyes.

Bowel

It is quite common for parts of the bowel to be affected by amyloid. This can cause a tendency for diarrhoea or constipation, or in some cases difficulty with swallowing or sickness.

Bones and Joints

Amyloid can cause swelling around joints, although this is not usually a major problem. There can be compression of one of the nerves to the hand around the wrist, and if you have numbness or tingling in the thumb or palm of the hand you should let your doctor know, as this can usually be dealt with by simple surgery.

Nerves

Occasionally amyloid can upset nerves that run down the body to the feet. This can cause pains or numbness in the feet. The nerves to blood vessels may also be affected causing problems with blood pressure control.

Heart and liver

These organs can have amyloid deposited in them. It's normal to have your liver function measured by a blood test and to have a tracing of your heart.

What causes amyloid?

Several types of protein can cause amyloid. By far the most common are fragments of antibodies. This occurs if the bone marrow overproduces antibodies due to abnormal cells, chronic infection or a rare genetic disease.

If your amyloid is caused by abnormal cells in the body, we will discuss your case with the haematologists, who may want to perform a bone marrow test. Rarely amyloid is caused by chronic severe inflammation in the body, such as in some forms of arthritis. Very rarely, amyloid runs in families.

What treatment is available?

Amyloid is not usually curable, but we are able to control the symptoms it produces.

Fluid Retention

You need to control the amount of salt and water you eat and drink, and may need to take tablets (diuretics or water tablets) to make the kidneys produce more urine.

Protein loss

Protein loss causes the body to become weak and reduce the ability to fight infection. We can give you specialist dietary advice about eating an appropriate diet.

Chemotherapy for the bone marrow

In some cases where antibody production is causing amyloid, we will try to suppress the activity of the bone marrow with drugs, normally by a course of tablets. The risks and possible benefits of such treatment will be discussed with you.

How will amyloid affect my life?

This varies from person to person. Some patients with amyloid lead essentially normal lives, others unfortunately have to accept some limitations due to weakness or breathlessness. We would encourage you to be as active as you can, and to lead as normal a life as possible.

For further information please contact:

National Amyloidosis Centre <http://www.ucl.ac.uk/medicine/amyloidosis/nac>

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