

Solitary plasmacytoma

This Infosheet explains what a solitary plasmacytoma is, what causes one, what the signs and symptoms are, what diagnosis involves and how they are treated.

What is a plasmacytoma?

A plasmacytoma is a localised build-up of abnormal plasma cells that occurs either inside bone or within the soft tissue.

Plasma cells are a type of white blood cell which forms part of the immune system. Plasma cells are normally found in the bone marrow, which is the soft substance found in the centre of larger bones.

The plasma cells associated with plasmacytomas are malignant (cancerous).

Plasmacytomas can occur as a feature of a plasma cell cancer called myeloma. Myeloma is associated with complications such as anaemia, high levels of calcium in the blood and reduced kidney function.

A plasmacytoma can also exist as a discreet, single mass of abnormal plasma cells – this is called a solitary plasmacytoma.

A solitary plasmacytoma found inside the bone is called a solitary bone plasmacytoma (SBP). One found outside the bone, in the soft tissue, is called a solitary extramedullary plasmacytoma (SEP).

Some patients diagnosed with a solitary plasmacytoma will go on to develop myeloma. In general, the risk of progression to myeloma is higher in patients with an SBP compared to those with an SEP.

Patients with either type of solitary plasmacytoma are monitored regularly for signs and symptoms that may indicate progression to myeloma.

Who can get a solitary plasmacytoma?

SBP are uncommon and make up approximately 5% of all of plasma cell disorders. It is twice as common in men as in women. SEP are even less common than SBP.

A solitary plasmacytoma most commonly occurs in people

later in life – the average age at diagnosis is 60. It is very rare in those under the age of 30.

What causes a solitary plasmacytoma?

The cause or causes of a solitary plasmacytoma are unknown.

What are the signs and symptoms of a solitary plasmacytoma?

The most common sites for an SBP are the spine and the long bones of the arms and legs. When a solitary plasmacytoma occurs in bone, the first symptoms patients notice are usually pain and tenderness in the affected bone.

Over 80% of SEP occurs in the head and neck region, particularly in the upper airways (nose, throat and sinuses), but may also be found in the gastrointestinal tract, lymph nodes, bladder, lung or other organs. With an SEP, the symptoms will depend on the particular site; for example, you may experience difficulty with swallowing if the solitary plasmacytoma is found in the throat.

How is solitary plasmacytoma diagnosed?

A person is diagnosed with a solitary plasmacytoma when:

- A biopsy reveals a single mass of abnormal plasma cells either inside the bone or soft tissue
- X-rays or other scans (e.g. MRI) show no other lesions in the bone or in the soft tissue
- A bone marrow biopsy shows no evidence of abnormal plasma cells in the bone marrow
- Blood tests show no signs of myeloma-related complications such as anaemia, high calcium or reduced kidney function

How are solitary plasmacytomas treated?

The treatment that is used most commonly for both types of solitary plasmacytoma is radiotherapy. The aim of treatment is to eliminate the solitary plasmacytoma. Radiotherapy involves focusing radiation (similar to X-rays) on the solitary plasmacytoma to kill the malignant cells. This is generally given over several days to reduce the impact of any side-effects. Each treatment dose of radiotherapy is known as a 'fraction'.

In both kinds of solitary plasmacytoma, chemotherapy is not commonly used. However, in some cases of SBP, the addition of chemotherapy to radiotherapy treatment can be advantageous.

In some patients with an SEP, surgery to remove the solitary plasmacytoma is an option while some patients with an SBP may require orthopaedic surgery to provide bone stability.

How are patients with a solitary plasmacytoma monitored?

Radiotherapy generally provides excellent local control of a solitary plasmacytoma. However, there does remain the risk of a future recurrence, or progression to myeloma. For this reason patients with a solitary plasmacytoma require long-term follow up. This generally occurs in the hospital outpatient department and will involve regular checks and blood tests.

Future directions

Ongoing research aims to understand how best to diagnose, treat and manage solitary plasmacytoma, and what influences its progression to myeloma in some patients.

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation. All Myeloma UK publications are extensively reviewed by patients and healthcare professionals prior to publication.

Other information available from Myeloma UK

Myeloma UK has a range of Essential Guides, Infoguides and Infosheets available covering many areas of myeloma, its treatment and management.

To order your free copies or to talk to one of our Myeloma Information Specialists about any aspect of myeloma, call the **Myeloma Infoline: 0800 980 3332** or **1800 937 773** from Ireland.

The Myeloma Infoline is open from Monday to Friday, 9am to 5pm and is free to phone from anywhere in the UK and Ireland.

Information and support about myeloma is also available around the clock at www.myeloma.org.uk

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