

Fact sheet 10

Borderline ovarian tumours

We, Ovacome, are a support network for people affected by ovarian cancer in the UK. We provide information and support, raise awareness and put you in touch with others who are suffering from ovarian cancer.

If you are diagnosed with a 'borderline ovarian cancer' (BOC), you can feel very worried and uncertain. However, most women who develop this condition are completely cured by surgery and never need any more treatment.

This fact sheet explains BOC and describes the best care for the small group of women who have more difficult cases of BOC.

There is a glossary with this fact sheet, to explain words you may not be familiar with.

What is borderline ovarian cancer (BOC)?

BOC is probably best defined by what it is not. 'Ordinary' ovarian cancer is when cells grow uncontrollably on the surface of the ovary and are able to spread to other organs.

Most cases of ordinary ovarian cancer are found at an advanced stage (stage 3 or 4). This is when the cancer has spread beyond the ovary.

Although BOC arises from the same type of cells on the surface of the ovary, their growth is much more controlled, and they are usually not able to invade other tissues.

For this reason, some doctors prefer the term 'borderline ovarian tumour' rather than 'borderline ovarian cancer'.

Because BOC behaves in a much less aggressive way, in most women the condition has not spread beyond the ovary when it is diagnosed (stage 1 disease). This means that for women who have had surgery to remove an early disease, the risk of it coming back is very small (less than 5%). Most experts recommend that no special follow-up is needed after surgery for stage 1 BOC.

The difficult cases

There are three situations which can cause you greater concern or uncertainty.

1. Borderline ovarian tumours which have spread beyond the ovary.
2. Mucinous borderline tumours involving the ovary, when tests suggest these could be tumours from a tumour in the appendix.
3. Stage-1 borderline ovarian tumours in young women treated with limited surgery to allow you to keep your ovary. There could be an increased risk of the disease coming back in the ovary you have kept.

Borderline ovarian tumours which have spread beyond the ovary

A small number of cases of women with BOC have cancer which has spread as 'deposits' to other organs, usually the peritoneal membrane.

Non-invasive implants

Most of these 'deposits' do not invade the underlying tissue. If these 'non-invasive

implants' are present, it is rare for them to cause problems, even if they stay after surgery.

We do not know the absolute correct way to care for women with non-invasive implants of BOC, because research studies comparing different treatments (including observation) have not been performed.

Most women with BOC with non-invasive deposits to the peritoneum (stage 2 or 3) have no other problems, and no treatment (such as chemotherapy or radiotherapy) is known to reduce the risk of problems. At present, the best care involves regular follow-up care to check for signs that the remaining deposits have grown.

Invasive implants

In a very small number of women the deposits of BOC show a tendency to invade the tissues. This behaviour is more like conventional ovarian cancer, suggesting more chance of a tumour growing in the future.

For women with invasive deposits, the outlook is generally better than for women diagnosed with the equivalent stage of ordinary ovarian cancer, as the tumour still does not necessarily behave as cancer does.

There is still a question as to whether to treat women with invasive implants of BOC with chemotherapy immediately, or to wait until there is definite evidence of the condition getting worse. Close observation and repeated scans often show that the condition hardly changes over time. This means that you may not need chemotherapy in the long term.

It is important to be aware of the limits of chemotherapy in treating stage-3 BOC with invasive implants. The chance of there being a benefit is quite low, and the disease cannot be completely removed. This means it is reasonable to be cautious with chemotherapy and put off using it until it is needed.

Repeated surgery can be valuable in certain cases. Samples of tumours taken during an operation may show a change in how the tumour is behaving. If pathology results show that the tumour has features like 'conventional' ovarian cancer, then standard treatment for ordinary ovarian cancer can be recommended.

Mucinous borderline ovarian tumours

Most borderline ovarian tumours are classified as 'serous' from their appearance under the microscope.

A smaller number have a different appearance and are called 'mucinous'. Sometimes a small, undetected mucinous tumour can develop in the appendix, and spread to the ovary. This can give the appearance of a primary ovarian tumour, when in fact it is a secondary tumour.

It is important to consider this possibility in all cases of mucinous borderline ovarian cancer, so that a separate appendix tumour is not left behind at surgery.

It is difficult to decide the type of ovarian tumour (serous or mucinous) at the time of the operation. So surgeons must carefully inspect the whole abdomen, including the appendix, to look for a hidden primary tumour.

After surgery the pathologist may use special tests to tell apart a mucinous borderline tumour which has arisen from the appendix from one which was originally from the ovary.

Multidisciplinary teams dealing with ovarian tumours should always discuss these cases in detail, so they can make sure you receive the correct advice and treatment.

Stage-1 borderline ovarian tumours in young women treated with limited surgery

If you are a young woman with a borderline ovarian tumour, you may want to keep an ovary so you can have children in the future. In this situation, a surgeon may remove the affected ovary, but leave the apparently normal ovary and uterus (womb). The surgeon must examine the abdomen carefully, to check if any cancer has spread.

In about 20% of these cases, the tumour comes back in the ovary that is left.

This means you need regular check-ups after surgery. Follow-ups include ultrasound examinations every six months for about two years, then yearly. Later it may be appropriate for women who have had their family to have the remaining ovary removed. This removes the risk of problems in the future, and means they will not have to go for follow-ups.

If you would like more information or you would like to discuss anything to do with ovarian cancer, phone our support line on 0845 371 0554, Monday to Friday from 9am to 4pm. Or, you can visit our website at www.ovacome.org.uk.

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Glossary

Biopsy	Removal of a small piece of tissue from an organ or part of the body so it can be examined under a microscope.
Chemotherapy	Treating a disease with medication, such as cytotoxic drugs (drugs that kill cancer).
Malignant	Malignant tumours have the ability to invade and destroy surrounding tissues and can spread to other organs.
Mucinous tumours	Mucinous borderline ovarian tumours are a less common type of borderline ovarian tumour. They look different under the microscope, showing glandular structures.
Multidisciplinary Team (MDT)	Several members of different hospital departments who meet to discuss the treatment plan for individual patients.
Pathology	The branch of medicine that deals with examining parts of the body that have diseases.
Peritoneal membrane	Membrane that lines the abdomen and covers other internal organs.
Primary tumour	The first cancerous tumour to develop in a particular part of the body.
Radiotherapy	Treating a disease with radiation.
Secondary tumour	A tumour that comes back in a different place from where it started, or spreads (also called metastasis).
Serous tumours	Serous borderline ovarian tumours are the most common type of borderline ovarian tumour. They come from the surface membrane of the ovary and have a particular appearance under the microscope.

Ultrasound scan

Using sound waves to build up a picture of organs inside the body, through a probe placed on the abdomen or in the vagina.