Cancer Division

Risk of cancer in the other testicle

Testicular cancer does not spread from one testicle to the other. However, it is possible to develop a second primary in the other testicle though this is rare affecting only one or two patients in a hundred. Second tumours are normally detected very early when confined to the testicle and are usually cured with surgery alone, without need for further treatment.

There are 3 risk factors associated with a second testicular tumour;

- An early age of diagnosis of the first tumour (less than 31 years), and
- A low testicular volume (less than 12mls)
  or
- A history of maldescent of the testes

If these factors are present, the risk of developing a second tumour at some point in the future rises to about one in three. Therefore, it is very important to identify those who are most at risk.

In this situation, a biopsy of the normal testicle will be discussed. This issue may be raised by the surgeon at the time of orchidectomy or by the oncologist at a later date. It can be carried out at the time of the first orchidectomy or following cancer treatment.

The reason for a biopsy is to detect any signs of pre-cancerous cells in the healthy testicle which may develop into a malignant tumour at a later date. This is known as carcinoma in situ or CIS. The risk of CIS progressing to cancer over five years is 50%, but it is believed that this will occur in all patients with CIS if follow up is long enough. Nevertheless, for patients who have not completed their family, delay may be a good option.

The biopsy may be carried out under general anaesthetic where a small incision is made in the scrotum and a small amount of testicular tissue removed for analysis. Alternatively, it may be done using ultrasound guidance where a needle biopsy is taken under local anaesthetic. If you have been treated with chemotherapy, it is important to wait at least two years following completion of treatment. This is so that a reliable result is obtained as chemotherapy can affect healthy cells in the short term and obscure the result.

If CIS is diagnosed there are two options for management. One is close surveillance of the remaining testicle with an annual ultrasound scan to assess for signs of a developing tumour. At the first sign that the CIS is progressing into a malignant cancer it would be recommended that you have a second orchidectomy. A second orchidectomy carries with it the risks associated with any surgical procedure and anaesthetic and includes post operative infection, bleeding or pain. The long term side effects of a second orchidectomy are

- Permanent infertility due to loss of cells which produce sperm
- Hormone insufficiency requiring lifelong hormone replacement with testosterone

In addition you have the added risk that the tumour may have seeded elsewhere prior to the orchidectomy and would require additional treatment following surgery.
The other option following a CIS positive biopsy is treatment up-front to prevent it developing into a tumour. Treatment involves radiotherapy to the testicle. This will remove the risk of cancer, but unfortunately has the unpleasant side effects noted above (i.e. infertility and potential hormone insufficiency, though the risk of total hormonal failure is small)

If the biopsy is negative, then the risks of developing a second tumour are extremely low.

The side effects will be discussed in detail with you before you elect for the biopsy or any relevant treatment. It is important to remember that the risk of a second tumour for those in the high risk group is less than 40% and that, because patients usually detect second tumours early, they have a very good outcome and are often cured with orchidectomy alone.

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