Will Butcher – Vascular Surgery

Patient information

Exposure for anterior spine surgery, incorporating; why do I need a vascular surgeon for my spine operation?

You have been given this information sheet because you are due to have back surgery with an exposure through your tummy. In contrast to surgery on the back where the approach is from the back, there are a number of things that need to be moved out of the way so the spine surgeon can do his work. The reason a vascular surgeon is involved is that the two main things to be moved are the main artery and vein running through your tummy.

Most of the organs in your tummy are contained within a "bag" called the peritoneum. The spine and the vessels are behind this. There are two ways to get to the spine, either through the peritoneum or around it. Usually the easiest for us and better for you is if we can sweep the peritoneum and the organs it contains to the side (usually from left to right). This will give me the view I need of the major vessels and allow me to safely mobilise them out of the spine surgeon's way. Sometimes we are not able to sweep the peritoneum to the side and we have to go through the peritoneal cavity. This is a bit trickier and does involve a slightly longer recovery. Nevertheless, the exposure is quite adequate and the spine surgery is identical.

The reasons why we sometimes go through rather than around the peritoneum usually relate to previous tummy surgery where the scarring prevents development of a plain around the peritoneum. Any previous surgery in the tummy may be a problem, especially hernia repairs and surgery in the pelvis. We will always try and develop the path around the peritoneum, in some cases of prior surgery we are successful but sometimes not.

When I get to the major artery (Aorta) and vein (Vena Cava) I will mobilise them either to the side or separate them to expose the spine. This involves the tying and cutting of some small branches of these vessels to help move the vessels, this process is of no great importance to you in the future.

The main reason a vascular surgeon is asked to do this exposure is to reduce the risk of injury to these vessels. Injury to the vessels may cause some bleeding (usually the vein rather than the artery) which I will be on hand to deal with but may also cause blockages gusually arteries if this happens). Again, my presence at the operation means that I can repair this immediately. If there is bleeding this is usually repaired by simply using a few stiches to close the vessel or repair it. If the vessel is blocked the repair is often a bit more complicated. This problem is more common if there is some previous vascular disease (hardening of the arteries). If this occurs, this involves opening the vessel and removing some clot, or clearing out some of the thickened arterial lining (Endarterectomy). If I have to open a vessel this may require the use of a patch to repair the vessel. For this we may use a patch of man-made material off the shelf or I may remove a small length of vein from your groin for this purpose. This is the vein that is commonly involved in varicose veins and is completely superfluous. You will not notice it's loss. Generally it is better if we do the repair with your own tissue rather than a man-made fabric. The need for some sort of vascular repair is unusual – significantly less than 10% and importantly does not seem to affect the success of the spine surgery.

After the spine surgery is complete, I will do a final inspection to ensure that the blood vessels are all intact and working well before closing up the tummy again. This part of the operation is the same whether we go through the peritoneum or around it.

Your spine surgeon may have several reasons for wishing to complete your surgery from the front. The main benefits are:

- Less damage to key supporting muscles in the back.
- Ability to remove the old disc more completely and place a large disc replacement
- Lower risk of damage to nerves and other spine joints which are at risk during an approach from the back.
- Reduced risk of deep infection of the replacement.

I will usually see you prior to the spine surgery. During this consultation I will explain my role more fully also explaining a bit more about the procedure. I will also try and give you a feeling about whether we will need to go through the peritoneal cavity or around it. I will also have a look at your xrays and other imaging to confirm that the vessels are normal. If they are diseased, the exposure may be higher risk. Occasionally, we may take the view that the risk is too high and the spine surgery will be done another way.

It is important to know that a vascular surgeon is not always present at the surgery. In some low risk cases the spine surgeon will feel confident to undertake the surgery him or herself. In these cases a vascular surgeon will be called only if there is a problem during the surgery.

Risks of this surgery

Risks relating to the approach:

- The major risks relate to injury to one of the main blood vessels causing either bleeding or blockage (around 5%). If there is a major injury to one or more of the major the vessels this can be very serious but fortunately is rare.
- There is a small risk (around 1%) of injury to one of the abdominal organs, bowel, bladder or kidney. The risk of this is very low and is certainly less if we are able to remain outside the peritoneum.
- There is also a very small (<1%) risk of damage to pelvic nerves which can result in changed sexual function in men. During intercourse this may result in the semen being discharged into the bladder rather than the normal way.
- After the surgery if the tummy wall fails to heal properly an incisional hernia may occur (around 5%). This is when a bulge of skin forms in the wound and can be uncomfortable. Repair is sometimes but not always necessary.
- Minor infections in the incision may occur but generally are minor and resolve quite quickly, some antibiotics may be required.
- After any type of abdominal surgery the bowel may take a few days to settle back to normal. In the early phase this can result in vomiting and tummy pain (ileus). To try and prevent this we will usually restrict your food and fluid intake for a few days until things are working again normally. If the bowel does take a long time to settle down, we will sometimes need to drain the stomach with a tube inserted through the nose, this is uncomfortable but is usually preferable to the vomiting and retching it treats. Fortunately, as long as we reintroduce feeding cautiously this is unusual. It is important to go slowly with food reintroduction in the early phase.

There are other risks relating to the spine surgery which your spine surgeon will explain.

It is important that you know that I am not trained in spine surgery and therefore can not offer advice as to the suitability or otherwise of the decision to have spine surgery.

PRIOR TO YOUR APPOINTMENT WITH ME

Most of the pre-operative preparation will be undertaken by the Spine surgeon, the reasons you are coming to see me are:

- So that you and I can meet.
- So that I can go through the operation with you in person.

- I need to be sure you understand the risks of the surgery from a vascular perspective and therefore ensure you understand my role.
- There are some other administrative matters to deal with as well.

I do not really need you to bring all your x-rays and scans with you, but what I will need is a record of your previous scans, the dates they were done and with which radiology company. I can then look up most scans on my computer.