13 Problems, Complications and How to Get Out of Trouble

A number of complications may occur during the course of repair, and some of these will be described as learning lessons in how to cope.

Are things not going well?

- Could exposure be improved by larger episiotomies or vaginotomies? Or by more head-down tilt?
- Is the lighting the best that it could be?
- Is the patient slipping down the table? Shoulder rests are essential for a very steep Trendelenberg position, but many operating theatres do not have them. Provided that the patient is placed with her buttocks well over the table with her thighs well flexed, it is possible to obtain 20% of head-down tilt without the patient moving down.
- Are you using an assistant well? An assistant unfamiliar to you should not do anything until asked, and then keep doing it until asked to change. If you have a regular assistant, he or she will be able to anticipate your needs. The most useful skill is to be able to pick up the tip of a needle for the surgeon deep in the vagina (5/8-circle needles make it much easier for surgeons to do this themselves).
- Try to use your assistant as little as possible, and keep the vagina clear of suction devices and instruments. We prefer mostly swabbing ourselves to clear blood and do not use suction as a routine. If flaps are sutured up, there is much less for someone to hold. As Kees Waaldijk has said, 'one person inside the vagina is already a crowd'.

An injured ureter

One of the most embarrassing mishaps is the accidental injury of a ureter at surgery. This has occurred to almost every fistula surgeon – not only beginners. This accident usually happens when mobilizing the bladder in the region of the cervix. Sometimes, the injury is recognized immediately, or it may be noticed at the end of the repair when clear urine is seen escaping.

This accident can be prevented by identifying and catheterizing the ureters at the earliest opportunity during a repair. This is usually done before making any incisions other than vaginotomies, but sometimes it is necessary to begin mobilization before there is any chance of visualizing the orifices. Here, the ureters are at risk, so it is

important to avoid straying into the bladder wall and to always keep close to the cervix or stay under the vaginal skin.

It is still possible to cut the ureter with the ureteric catheter in place. If the catheter has a metal stylet, it is advisable to keep it in place during dissection so that it can be felt and so that, if the ureter is cut, it will not be transected. Most catheters do not come with a metal stylet, and on a few occasions surgeons have cut through the ureter and catheter.

Ureteric catheters are not easy to obtain in Africa, and many surgeons who have had some basic training may find themselves without them. The important step is to identify a ureter at risk with a good ureteric probe and, if the ureter needs to be protected, it is possible to use an infant feeding tube (Figure 13.1). Being soft, these tubes are not very easy to insert, and they must be passed through the urethra first. They also slip out easily, and so should be secured by a fine catgut suture in the bladder.

If a ureter is identified as being at risk, it may be possible to protect it without the use of a catheter (Figure 13.2).

How to cope with an injured ureter

There are three approaches:

1. Try to pass the catheter up the real ureteric orifice and 'railroad' it across the gap.
2. Pass a catheter up the cut ureter and fold it into the repair. A cut ureter is more difficult to catheterize in the bladder wall. The lumen may retract. Use the smallest ureteric catheter available.
3. Suture over the cut ureter, finish the repair and implant the ureter into the bladder though a separate abdominal approach.

I have used all three methods with success.

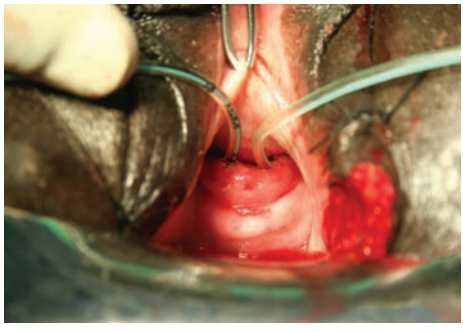

Figure 13.1 Feeding tubes used as ureteric catheters.

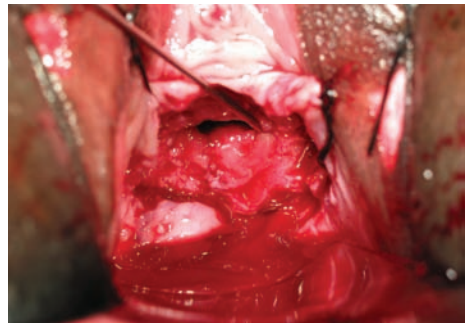

Figure 13.2 A ureter has been identified with a probe. If the distal and proximal corner sutures are placed and tied with the probe in situ, it will not be damaged.

The ureter and the ureteric catheter are cut

I have observed this twice in the hands of very experienced surgeons. The proximal catheter was impossible to extract. The repair was finished and the abdomen opened, the catheter was retrieved and the ureter was implanted into the vault of the bladder.

A trap for the unwary

A double ureter is not that uncommon (Figure 13.3).

An instructive story

A surgeon had completed a difficult repair of a vault fistula without the availability of ureteric catheters. That evening, no urine came through the bladder catheter, but urine was draining down the vagina. Next morning, the patient was taken to theatre. A dye test revealed that the repair was sound. It appeared that one ureter had been ligated and the other damaged in the bladder wall. Ideally, the repair should have been taken down and both ureters identified, but this was impractical. The practical step was to perform a laparotomy and implant both ureters. This was done, with a successful outcome confirmed by 6-month follow-up.

A desperate situation

A patient presented with a recurrent high intra-cervical fistula visible through a split open cervix. The defect extended below the level of the cervix and was judged unsuitable for a trans-vesical repair (Figure 13.4). The ureters were seen squirting on the edge of the ragged defect, but after 45 minutes could not be catheterized. The bladder was mobilized off the cervix remnant and the uterus, and the defect was

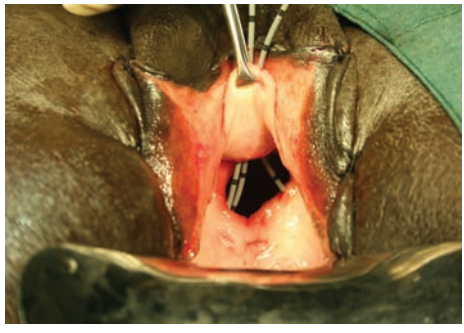

Figure 13.3 A double ureter.

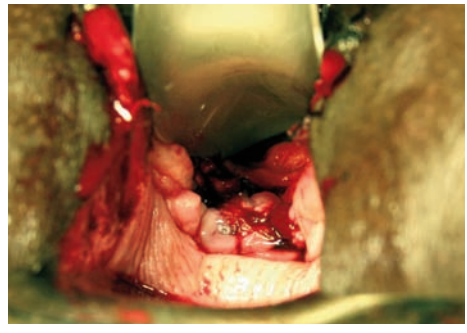

Figure 13.4 View inside the bladder from below. In this case, a deliberate decision was made to close the extensive intra-cervical defect and run the risk of including the ureteric orifices.

closed with a running suture. The ureters were clearly at risk, but there seemed to be no other option. The dye test was negative, but the patient produced no urine on the table. The abdomen was opened, and both dilated ureters were divided and anastomosed to the bladder. The patient had made a complete recovery when she was seen 3 months later.

Miscellaneous mishaps

Intra-vesical bleeding

Bleeding into the bladder should be an exceedingly rare event. We have seen it occur once in the immediate postoperative period. A surgeon had unknowingly entered the plane between bladder mucosa and muscle. It was obvious that heavy bleeding was occurring into the bladder by the appearance of haematuria with clots when the patient returned to the ward. The repair had to be taken down to secure the bleeder in the bladder wall. Although a re-repair was performed, it broke down and was repeated 4 months later.

An injured rectum

At the end of a long day of operating, a surgeon embarked on a difficult repair. In performing vaginotomies to obtain access, he inadvertently opened the rectum. This proved very difficult to repair through all the scar tissue that was present. A colostomy was performed in view of the difficulty. The fistula repair was deferred – it was repaired successfully and the colostomy closed 4 months later.

Lessons

- Do not start a demanding case late in the day.
- Always make vaginotomies just below the 3 and 9 o'clock positions.
- If in doubt, insert a finger into the rectum to act as a guide.

A missed rectal stenosis

I was presented with a patient who had a small circumferential vesico-vaginal (VVF) and a high recto-vaginal (RVF) felt on vaginal examination. The RVF was not palpable on rectal examination. I repaired the VVF and, before starting the RVF repair, I examined the patient per rectum. To my horror, I found that high up there was a complete stricture below the RVF. It would have been impossible to carry out the repair transvaginally. A colostomy was performed, followed by a later resection of the rectal stricture. In spite of considerable faecal contamination, the VVF healed.

Lesson

- It is essential to assess any potential rectal injury fully before embarking on a bladder repair.