Chapter 3

Understanding Operation Notes and Classification of Fistula

Operation notes are written by the surgeon who has performed the surgery. These notes should include individual postoperative instructions for each patient and give a description of the damage found and how it has been repaired. Understanding the patient's injury and the complexity of their operation will help in establishing what nursing care they require postoperatively.

Fistula operations are classified according to the severity of the injury. Grading of a fistula is based on the site, size and amount of scarring that has occurred. The critical factors affecting the prognosis of obstetric fistula are the length of the urethra, the size and position of the fistula, the size of the bladder and the amount of scarring caused by the injury.

A short urethra and small bladder can leave patients with stress incontinence after their fistula has been closed. Curing them to be completely dry can be challenging. Large fistulas with extensive scarring also cause difficulties and may take more than one operation to enable the woman to become dry.

There are several different classification systems used for grading fistula; however, the two most used by fistula surgeons are by Waaldijk and Goh. Classification of fistula helps to predict outcomes from surgery and to plan treatment.

There may also be an illustration of the fistula using a descriptive template. These drawings may be easier to understand than the classification systems.

Descriptive fistula drawings (Figure 25) indicate where the fistula is in relation to the cervix and urethra, the size and number of fistulas and any shading indicates the degree of scarring in the vagina or around the fistula margins.

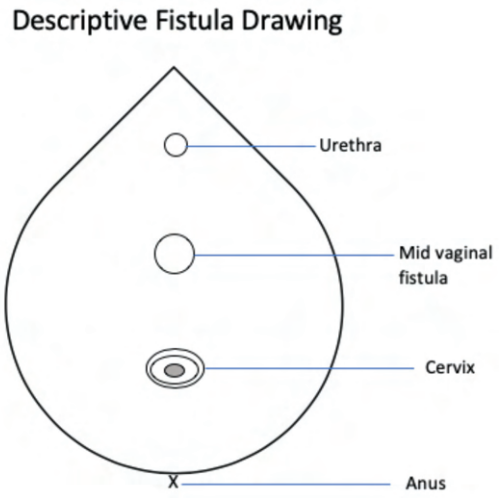

Figure 25 Descriptive fistula drawing template

Vesicovaginal fistula

The most common site for an obstetric fistula is at the urethrovesical junction, i.e. the junction at which the urethra joins the bladder. This is called a juxta-urethral fistula, with a hole between the bladder and the vagina.

There are a few other sites for fistula.

A mid-vaginal fistula is where the hole is between the bladder and the wall of the vagina.

The juxta-cervical fistula is between the bladder and part of the cervix or tissue close to the cervix.

An intracervical fistula is where the hole is between the bladder and the cervical canal. This often follows damage during a caesarean section or from a ruptured uterus.

Vault fistulas occur after hysterectomy operations and are usually the result of damage to the bladder during surgery or postoperative infection and breakdown of the wound. They are found at the apex of the vagina where the uterus has been removed and the vagina has been sewn together.

The diagram below denotes (Figure 26) the common fistula sites, but some large fistulas may cover a greater area or cover several of the areas shown on the diagram.

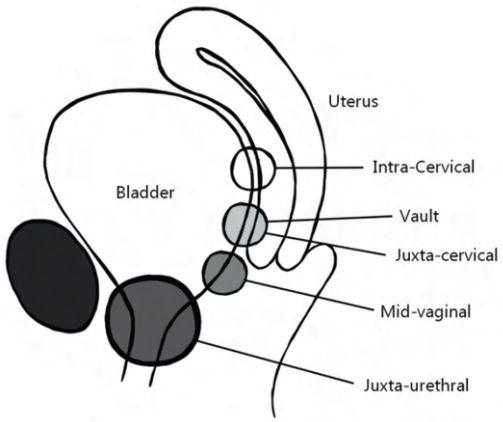

Figure 26 Different VVF sites

Ureteric and other fistulas

Ureteric fistulas are caused by damage to the ureter often during caesarean section, where the ureter has been ligated by a suture or accidentally injured (crushed with forceps, cut or cauterised by diathermy) during surgery. If this happens, urine will escape through the cervix or through the suture line of the uterus following the caesarean section causing urine to leak from the vagina.

Ectopic ureters are uncommon but can present with continuous incontinence. This is a hereditary condition in which the person is born with more than one ureter draining a kidney. If one of the ureters does not connect with the bladder, it can drain outside the bladder through the urethra or vagina. These patients will be able to pass urine normally as well as from the other ureter draining into the bladder. Although uncommon, these patients can present with similarities to VVF patients; however, the history of urinary incontinence will date back to childhood.

Vesicocutaneous fistula formation can present following delivery by caesarean section. This is where the bladder drains through a fistulous tract through the skin following complications after surgery for a caesarean operation. These are uncommon but can occur.

Rectovaginal fistula

Rectovaginal fistula (RVFs), as with VVF, are caused by pressure from the baby's head in the pelvis due to severe obstructed labour. Almost all women who have suffered RVF will have had a stillborn baby.

Most RVF can be repaired via a vaginal approach if they are low or mid fistulas, meaning that the injury between the bowel and vagina is accessible vaginally. High RVFs occur near the cervix or apex of the vagina making surgical access difficult.

Where there is a high RVF and VVF, the patient may need a temporary colostomy to allow the bowel time to heal. Both the RVF and VVF can be repaired at the same time. Managing a colostomy postoperatively and until it can be reversed poses a challenge for patients in low-income countries as access to colostomy bags and products is scarce.

These patients need careful preoperative counselling on how to manage the stoma after surgery, but also to reassure them that it is worthwhile if they can be cured. Time needs to be taken to address and allay any fears or anxieties about their proposed surgery.

Perineal tears

Severe perineal tears, including 3rd and 4th-degree tears, are often caused by rapid uncontrolled delivery with an unsupported perineum. Most women with perineal tears will have a live baby following delivery.

A 4th-degree tear happens when there is complete rupture of the anal sphincter muscle during delivery. There is also loss of the rectal/vaginal wall, leaving the patient incontinent of faeces and flatus post-delivery.

3rd-degree tears also involve rupture of the anal sphincter muscle, but the woman will have an intact rectal wall. The patient will also complain of an inability to control flatus and stool, particularly if the stool is loose.

Highlights of the operative techniques

In some surgical cases the surgeon will use additional tissue taken from other parts of the body to promote healing. These tissues include muscle flaps and fibrofatty grafts. Knowledge of these grafts and flaps is important for nursing care to ensure the wounds heal without

complications. The donor sites should also heal without problems if well cared for.

Singapore flap

A Singapore flap (Figure 27) is used in fistula repair surgery in which there is very little vaginal tissue or a significant defect in the vaginal wall to help close and promote healing of the repair.

The graft is taken from the inner thigh and used to improve the tissue and blood supply to the fistula site.

Postoperatively the patient should be nursed keeping her legs together and be on bed rest for the first 3 days following surgery to avoid any pulling on the graft site. Patients should also be advised not to sit for 5 days to avoid putting pressure on the blood supply of the flap which is close to the hip bones.

The donor site should be kept clean and dry and uncovered after the first 2 days. Sitz baths, which involve sitting in a basin of water with a small amount of salt added, should be discouraged in patients with these repairs, as sitting in water can cause the skin to break down and introduce infection to the wound.

Figure 27 Singapore flap donor site wound in the immediate postoperative period

Martius fat graft

Fibrofatty grafts such as the Martius fat graft (Figure 28) are occasionally used to help improve the blood supply and support the suture line of a fistula in which the tissue is poor, thin or fibrosed. They are often used for fistulas that involve the urethra or bladder neck. A flap is taken from the labia majora and used to pad the tissue surrounding the fistula.

Postoperatively there can be bleeding at the donor site of the graft, especially if there is no diathermy available in theatre. Regular wound checks are needed, and alternate sutures may require removal to release tension on the wound from bleeding.

Figure 28 Labial wound after Martius fat graft

Bleeding can often be controlled by applying a pressure dressing to the wound. Patients can be up mobilising the next day after a Martius fat graft repair.

Muscle flaps

Muscle flaps may be used for some operations. Commonly used muscles are the gracilis (thigh muscle), rectus abdominis (abdominal muscle) or fibres from the ischiocavernosus muscle (perineal muscle).

Gracilis flap

A gracilis flap is less common and used in repair of RVF caused by radiation therapy. The gracilis muscle is used to make a flap to improve blood supply and promote healing. These patients need to be counselled that they may experience some weakness in moving their leg away from the body afterwards (abduction).

Rectus abdominis flap

This type of flap may be used for complex transabdominal combined with transvaginal repairs. Patients need to understand that they may have weakness in the abdominal wall postoperatively.

Ischiocavernosus flap

These flaps are sometimes used in complex transvaginal repairs. Sitz baths should be avoided with this type of flap repair. There may also be increased vaginal bleeding postoperatively.