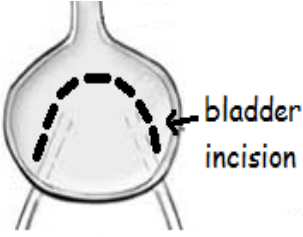
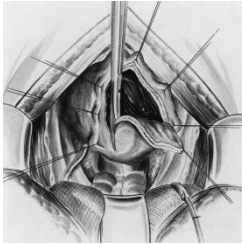
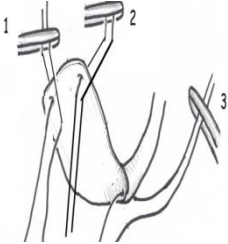
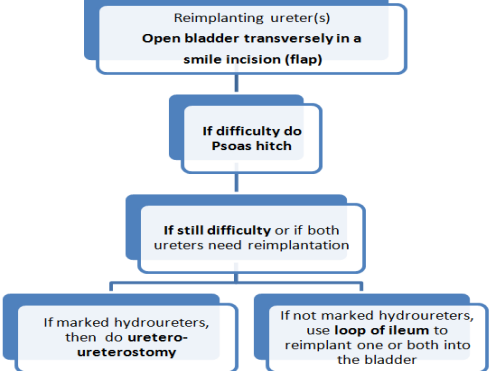


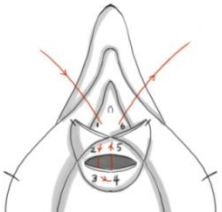
ADDITIONS TO MANUAL

1. Re-implanting the ureter

		<p>When opening the bladder for ureteric re-implant, it is a good idea to routinely make a “smile” incision. Place Allis forceps as follows: (a) Place one low on the anterior bladder wall. (b) Place the other two high up near the fundus/ dome. Incise as shown. First, mark out the incision with cautery and then deepen it with cautery or scissors. This makes a flap similar to a Boari flap. After reimplanting ureter(s), closure can be longitudinal or transverse.</p>
	<p>When re-implanting the ureter into the bladder, it is a good idea to have a routine method. First place and tie 3 sutures as shown (1,2,3). Then place 3 sutures (not shown) in between these 3.</p>	 <pre> graph TD A[Reimplanting ureter(s) Open bladder transversely in a smile incision (flap)] --> B[If difficulty do Psoas hitch] B --> C[If still difficulty or if both ureters need reimplantation] C --> D[If marked hydronephrotic, then do uretero- ureterostomy] C --> E[If not marked hydronephrotic, use loop of ileum to reimplant one or both into the bladder] </pre>


2. To prevent the urethra tearing during suturing of VVF

Tearing of urethral tissue occurs usually when the tissue is already friable or very thin. Therefore in these situations:

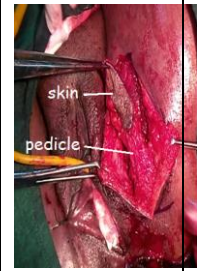
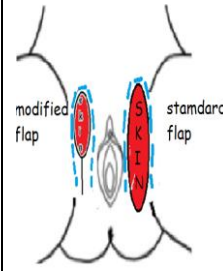
	<p><i>Option (A)</i> With a mattress suture, (1) Go through the anterior vagina wall. (2) Bite the urethral side of the fistula. (3) Bite the bladder side of fistula. Then come back up by biting (4) the bladder and (5) the urethra. Come out through (6)the vagina and tie the suture. Because the suture is tied on the outside over the vaginal tissue, it will not tear out. Note: The vagina is not closed by tying this suture as the bites are only taken on the distal vagina on the distal side. Also, the fistula repair site is not obscured so it is still possible to do a dye test etc.</p>
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Option (B): Try to adapt the tissues by suturing the pubocervical fascia bilaterally onto the para-urethral tissue over the symphysis/pubic bone and so covering the defect in the urethra i.e. transverse closure.

If the urethra has already torn: you can use the same techniques as above. Alternatively try to get some tissue from the para-urethral area to help with (longitudinal) closure.

<p>(3) Necrosis of the posterior urethra wall is due to extensive dissection of the anterior vagina wall from the distal urethra interfering with the blood supply of what is left of the distal posterior urethra. It is probably not so uncommon but often not recognised and just called breakdown of repair. Ref: <i>Step by Step Surgery of VVF Page 55 by K Waaldijk</i>. To avoid it, only perform enough dissection of the vagina off the distal urethra to allow for closure of the fistula. Also to avoid any tension, use 3-0 sutures and consider a skin flap.</p>	
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(4) Mini-Singapore flap: The aim is to harvest just enough skin that is required in vagina. Usually skin about half the length of the standard flap is required. (a) In the lower half, instead of excising the skin, it is incised in the midline. It is then undermined (staying superficial) to expose the fat and the deep fascia. (b) Incise the deep fat and fascia as in the standard Singapore flap staying lateral to maintain the main blood vessel. (c) Avoid dissection in the lower quarter especially on the medial side unless needed for mobilisation. The main advantage is that it is easier to close the donor site which heals well.
Tip! If doing both a Gracilis and Singapore flap, it is now recommended to take them from opposite sides if possible.



If skin cover is required over a Gracilis flap, the alternative to doing a Singapore flap is to take a full-thickness skin graft (ellipse of skin from the upper edge of the proximal Gracilis incision) and thin it out by removing any fat. Make a few small fenestrations (stab incisions with a size 15 blade) to prevent any fluid from building up between the graft and the muscle. Then suture it over the muscle with absorbable sutures. Place four corner sutures first and then fill in around the edges (continuous or interrupted). May place 1-3 central sutures as well (depending on the size of the graft) to help the graft adhere to the surface of the muscle. Keep the pack in for three days so the graft is not disturbed.