Figure 41. Cross-section of a ureterovaginal fistula. The ureter was cut or tied at caesarean hysterectomy. Note the stenosis in the ureter where it connects to the vagina, and the dilatation of the ureter proximal to the stenosis.
Figure 42. More commonly the ureter is implanted at laparotomy. The ureter has been mobilised and introduced through the broad ligament before implanting into the bladder via a cystotomy. It has also been fixed outside to the bladder serosa (arrowed) to reduce tension on the anastomosis.
Figure 43. A ureteric fistula draining into the vaginal vault after hysterectomy. If the ureter is not too distorted and stenosed, it can be catheterised and implanted vaginally. The ureter is catheterised, and the initial vaginal incision has been made around the ureteric fistula and extended medially to help expose the bladder to make an incision in order to perform the implantation.
Figure 44. The vagina has been mobilised and the bladder entered from the vagina (cystotomy). The ureter can now be implanted. The ureteric catheter has been pulled into the bladder and out through the urethra.
Figure 45. Cross-section showing a bladder stone with concurrent fistula. This stone could be removed vaginally through the fistula or it can be crushed with sponge-holding forceps if needed. The bladder should then be thoroughly irrigated through the fistula.
Figure 46. If a bladder stone is too large to be removed through the fistula or if there is no fistula, remove the stone by making a low transverse abdominal incision, staying in the preperitoneal space to prevent spillage into the peritoneal cavity.
Figure 47. As it can be difficult to locate the bladder, the easiest way is to fill it through the Foley catheter. Make sure to be in the correct plane by inserting a syringe and withdrawing to identify urine. Aim the needle of the syringe into the pelvis to reduce the risk of bowel perforation.
Figure 48. Cross-section showing severe vaginal stenosis.
Figure 49. The harvest site of the Singapore flap in the groin crease leaves a wide pedicle centred just medially to the ischial tuberosity.
Figure 50. The flap is introduced into the vagina by a wide tunnel. Make sure to carefully excise any skin that could remain in the tunnel.
Figure 51. The flap is in place and the harvest site has been repaired.
Figure 52. Labial rotation flap. A flap is raised from posterior to anterior and rotated into the vagina.
Figure 53. Flap developed.
Figure 54. Labial rotation flap sutured in place over areas of vaginal tissue loss.
Figure 55. Creation of a neovagina using peritoneum (Davydov procedure). The Pouch of Douglas is entered vaginally. This may be difficult and it may be necessary to develop a space for the neovagina through an area of closed scar. Flaps of peritoneum are subsequently developed. Note that this patient has had a hysterectomy.
Figure 56. The peritoneum is closed off at the new vaginal vault and sutured to the remaining vagina.
Figure 57. Cross-section showing a small distal urethral fistula.
Figure 58. Small distal urethral fistula seen vaginally.
Figure 59. Carefully mobilise the vagina and urethra as the tissues can be very thin.
Figure 60. The fistula is repaired vertically over a Foley catheter to maintain the urethral length and width.
Figure 61. Cross-section showing a patient whose large fistula was closed successfully but who is still totally incontinent of urine through a wide, open urethra. Note the short anterior vaginal wall and cervix pulled down towards the introitus.
Figure 62. The same clinical case as in Figure 61 seen vaginally. Note the retracted open urethral meatus and short, tight anterior vaginal wall with no rugae.
Figure 63. The anterior vagina was mobilised, pushing the uterus back to its normal position and the urethra has come forward. A flap should be used to fill the anterior vaginal gap and a sling of fascia to support the urethra.
Figure 64. The anterior vagina was incised and mobilised enabling the urethra to advance forward and the uterus back. The urethra was reconstructed to achieve a normal length and width and supported with a sling. The gap in the vagina was filled with a flap.