Laparoscopic Burch and Paravaginal Repair

Weakening of the pelvic supporting tissues allows the urethra and bladder neck to bounce downwards (urethral hypermobility) with coughing, sneezing, and any physical exertion, leading to leakage of urine. These situations have in common a momentary increase in abdominal pressure. This is called stress urinary incontinence, with the stress being the transient increase in abdominal pressure. The paravaginal repair reattaches, using permanent sutures, the fascia between the bladder and the vagina to the pelvic sidewall, thus re-establishing the normal anatomy. The Burch repair, using permanent sutures, creates a “hammock” for the urethra and bladder neck, so that the tissues will not bounce when exposed to increased abdominal pressure, and the patient will not lose her urine.

Through laparoscopy, the space between the bladder and pubic bone is opened up. The pubic bone is seen at the top of the picture.

The white fascia is identified on the patient’s left side.
The white fascia is identified on the patient’s right side. The bladder is seen on the left side of the picture.

Permanent sutures are used to attach the fascia to the sidewall on the patient’s left side.

Permanent sutures are used to attach the fascia to the sidewall on the patient’s right side.
The cystocele is corrected by the paravaginal repair with the fascia sutured to the left and right sidewalls. Stress urinary incontinence is then corrected with a Burch colpo-suspension. The hammock is composed of Gortex sutures (white) from the pubo-cervical fascia (supporting tissue between the vagina and bladder) to the Cooper’s ligament (running along the superior pubic rami at the top of the picture). There are 2 on each side, one at the level of mid-urethra and one at the level of the bladder neck.