

Surgery Illustrated

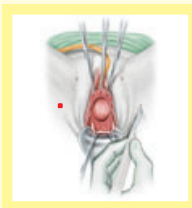
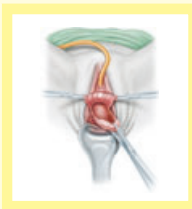
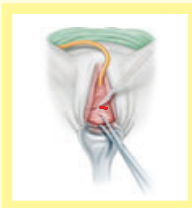
Surgical Atlas

New trends in the transobturator management of cystoceles

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ILLUSTRATIONS by STEPHAN SPITZER, www.spitzer-illustration.com



INTRODUCTION

Anterior vaginal wall prolapse is a frequent condition that affects 11% of American women. The incidence of cystocele doubles in each decade of life and it is estimated that 2.9 million women are affected by grade III–IV cystocele in the USA [1]. Because of the anterior vaginal prolapse recurrence rate of 30% in the first year, new approaches were developed to repair these hernias. The transobturator approach described by Delorme [2] in 2001, along with the principles of biosurgery, allowed for the development of a simple and minimally invasive approach for severe or recurrent anterior vaginal wall prolapse.

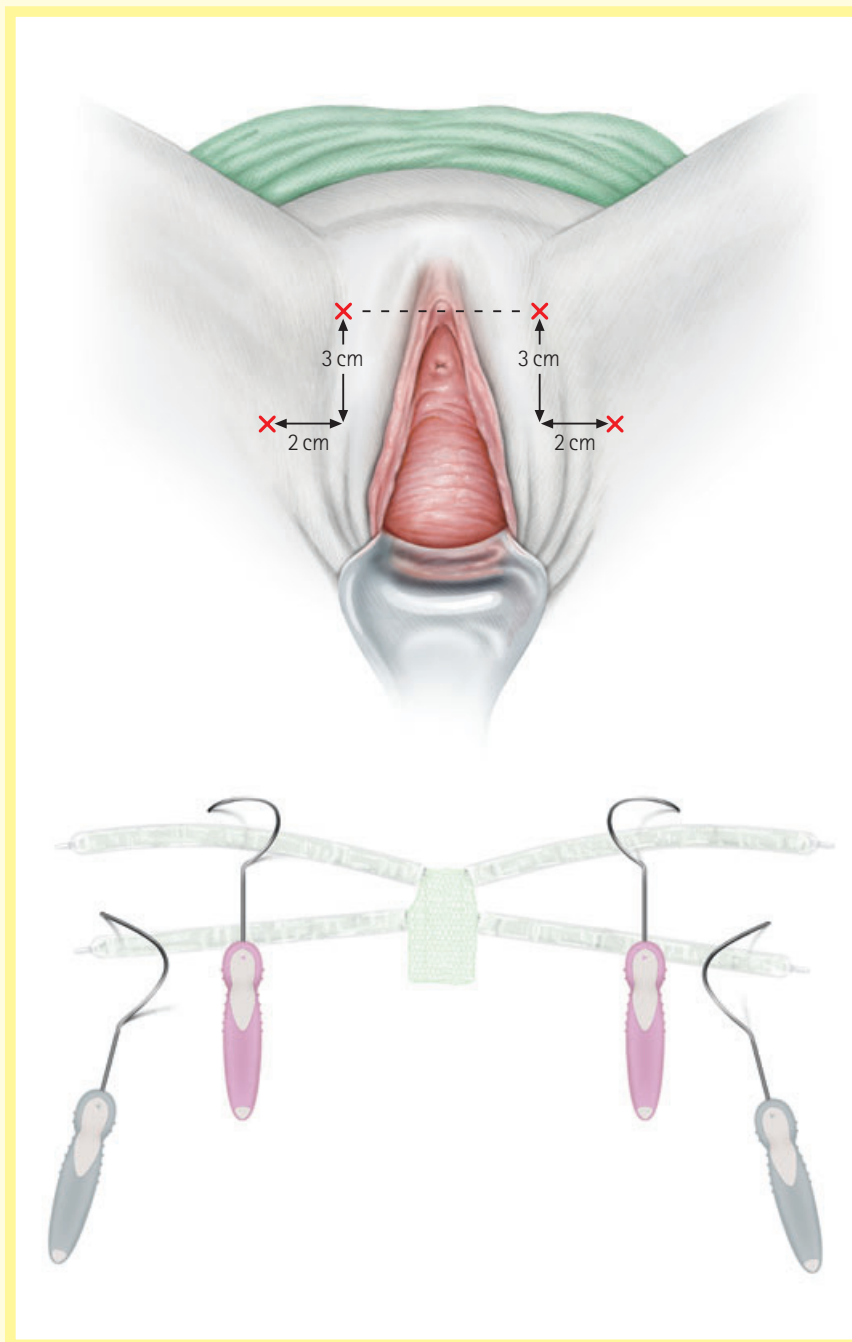
The concept of biosurgery, a term coined by Hubert Manhes in France, proposes new guidelines for minimally invasive surgery. Surgeons should abandon the classical mechanical way of thinking, changing to a more creative and rational approach to

surgery, dealing with live tissues [3].

Biosurgery improves classic surgery, using biomaterials as reinforcement for damaged tissues, and is based on seven principles:

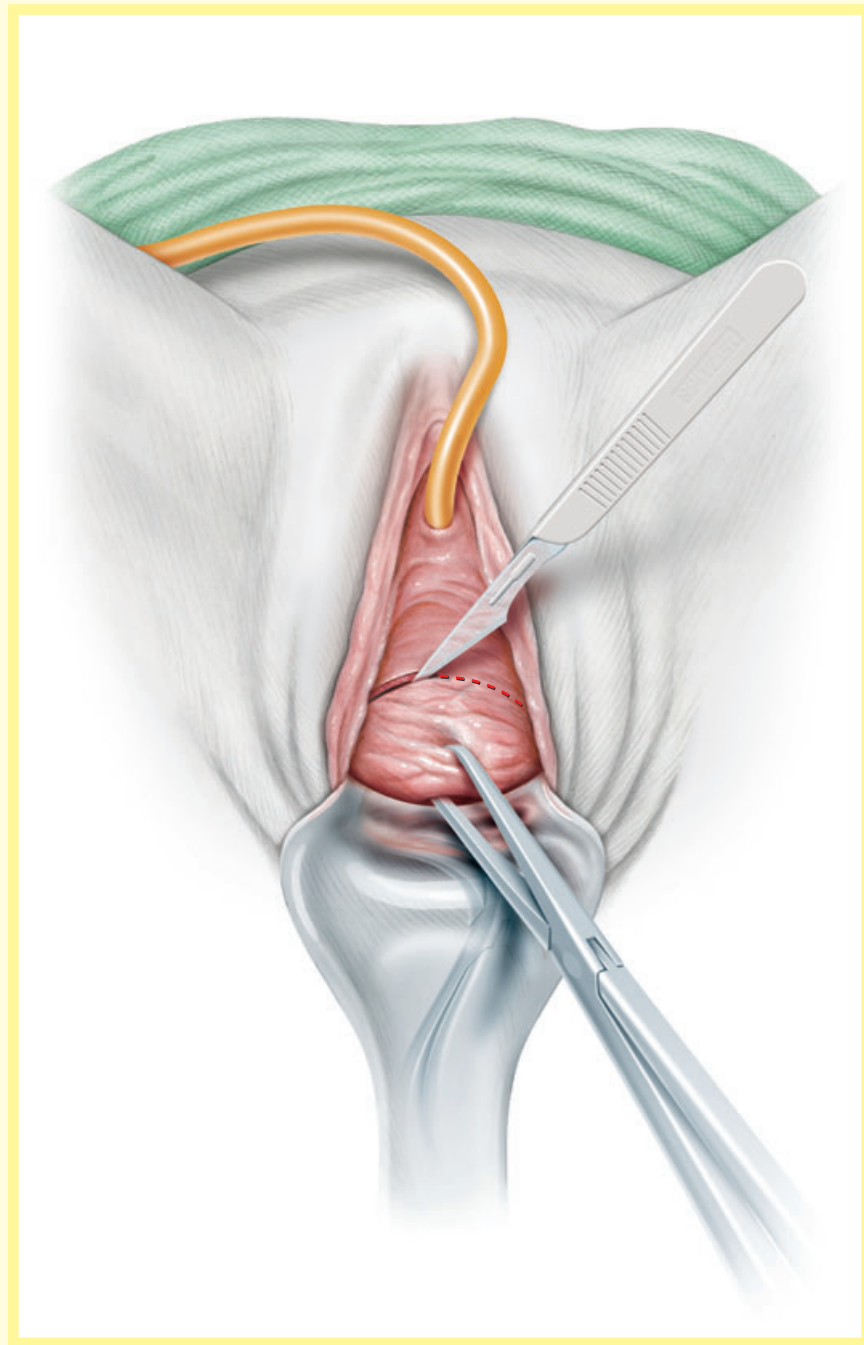
- 1 Minimally invasive approach
- 2 Physiological and anatomical cleavage planes
- 3 Minimal trauma
- 4 Specific 'ecosystem' and tissue engineering
- 5 Absence of sutures, avoiding infection and necrosis
- 6 Stimulation of body reaction with special attention to new collagen production by macrophages
- 7 Immediate anatomical and functional results

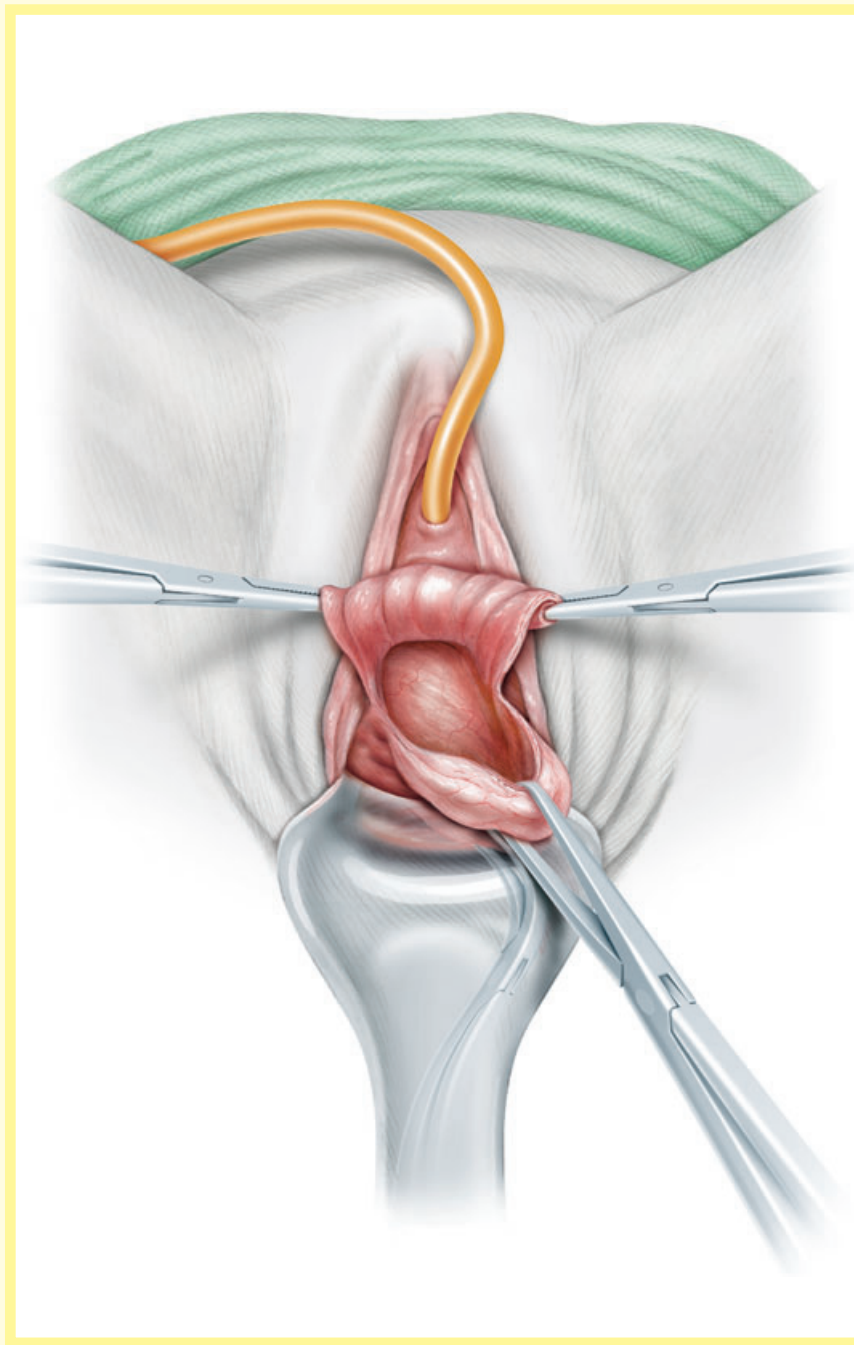
In this scenario, a new technique for transobturator repair of anterior vaginal wall prolapse sets a new trend in the minimally invasive treatment for prolapse, especially for high-grade or recurrent cystocele.

**Figures 1 and 2**

The Perigee system consists of a polypropylene mesh with two pairs of lateral self-anchoring arms and four needles to repair both central and lateral defects.

With the patient in the lithotomy position, a Pozzi clamp is placed at the uterine cervix and hydro-dissection used to facilitate dissection. An inverted U subcervical incision is made.

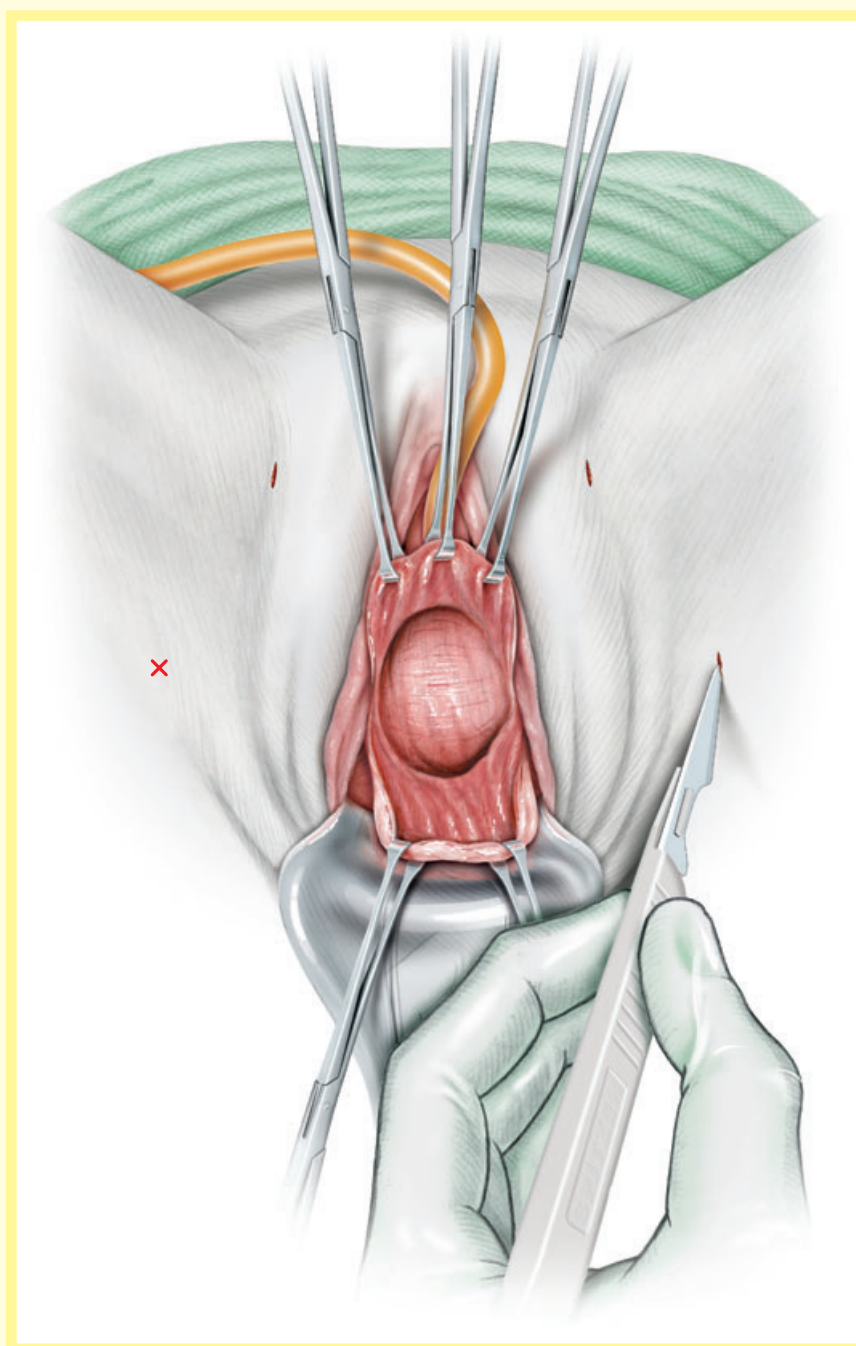


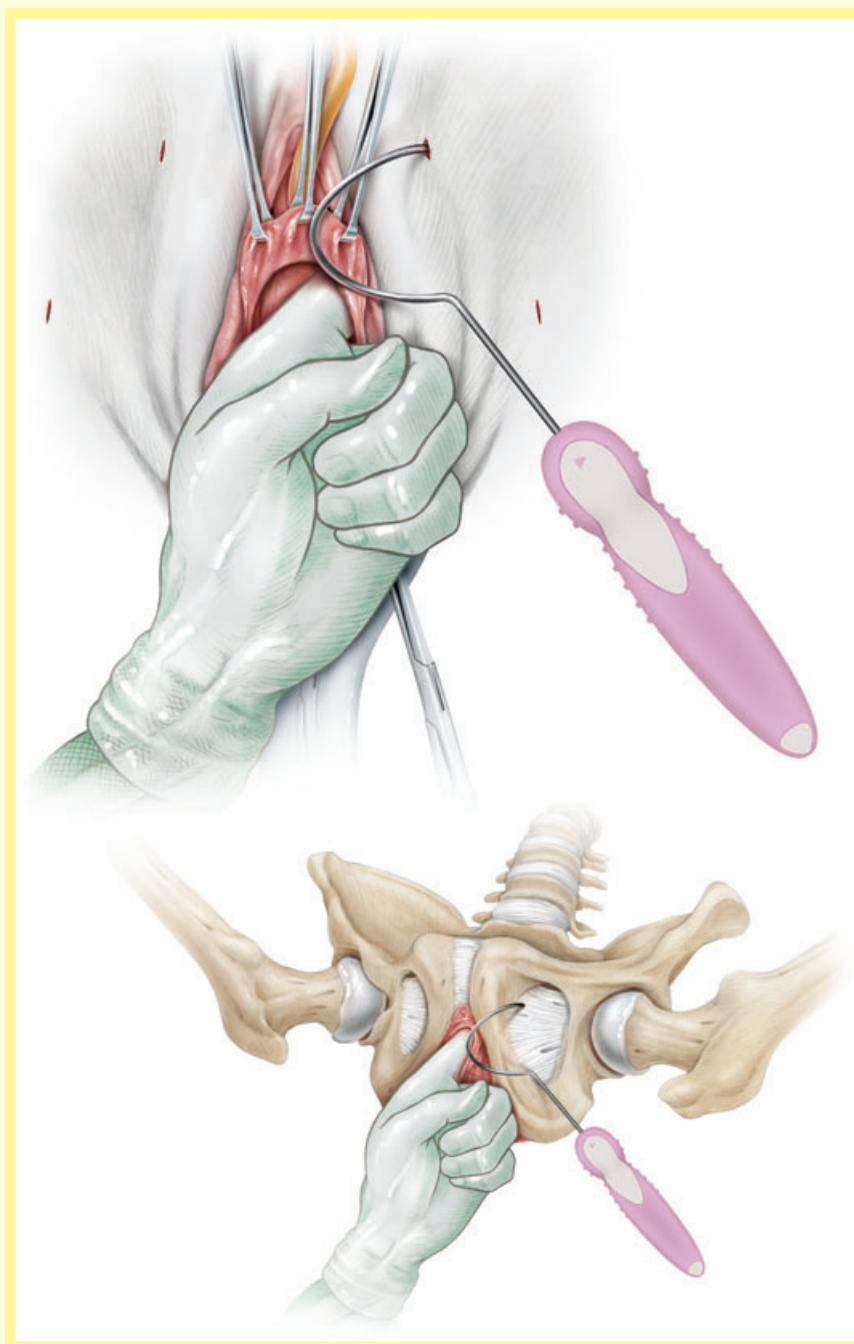
**Figure 3**

Blunt and sharp dissection allows for the roll-over of the vaginal wall to the level of the bladder neck. Lateral dissection at the ischium-pubic level permits the four Perigee needles to pass through.

Figure 4

Four stab incisions are made. The superior incisions are made in the genitofemoral folds at the level of the clitoris. The inferior incisions are made 2 cm lateral and 3 cm inferior to the superior incisions (see also Fig. 1)

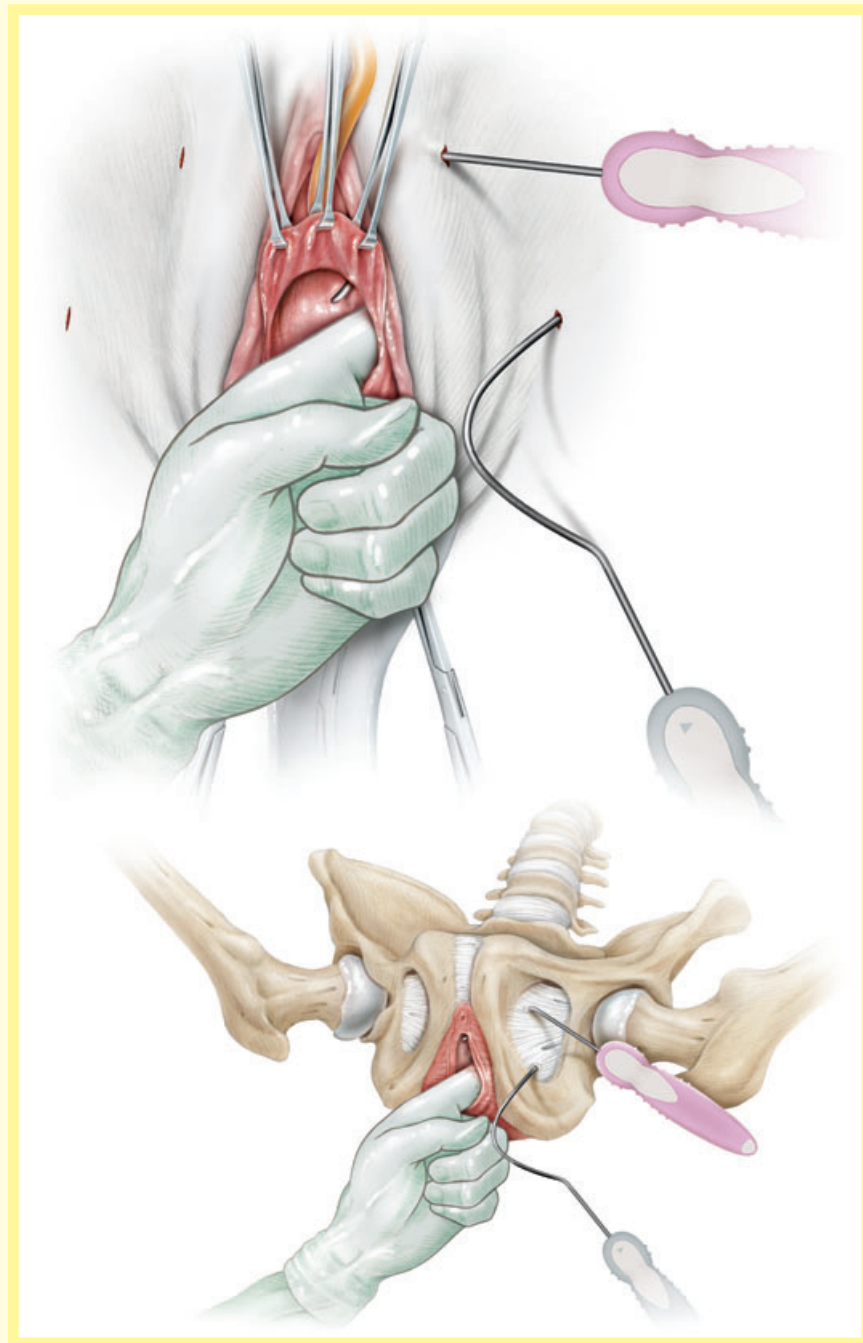


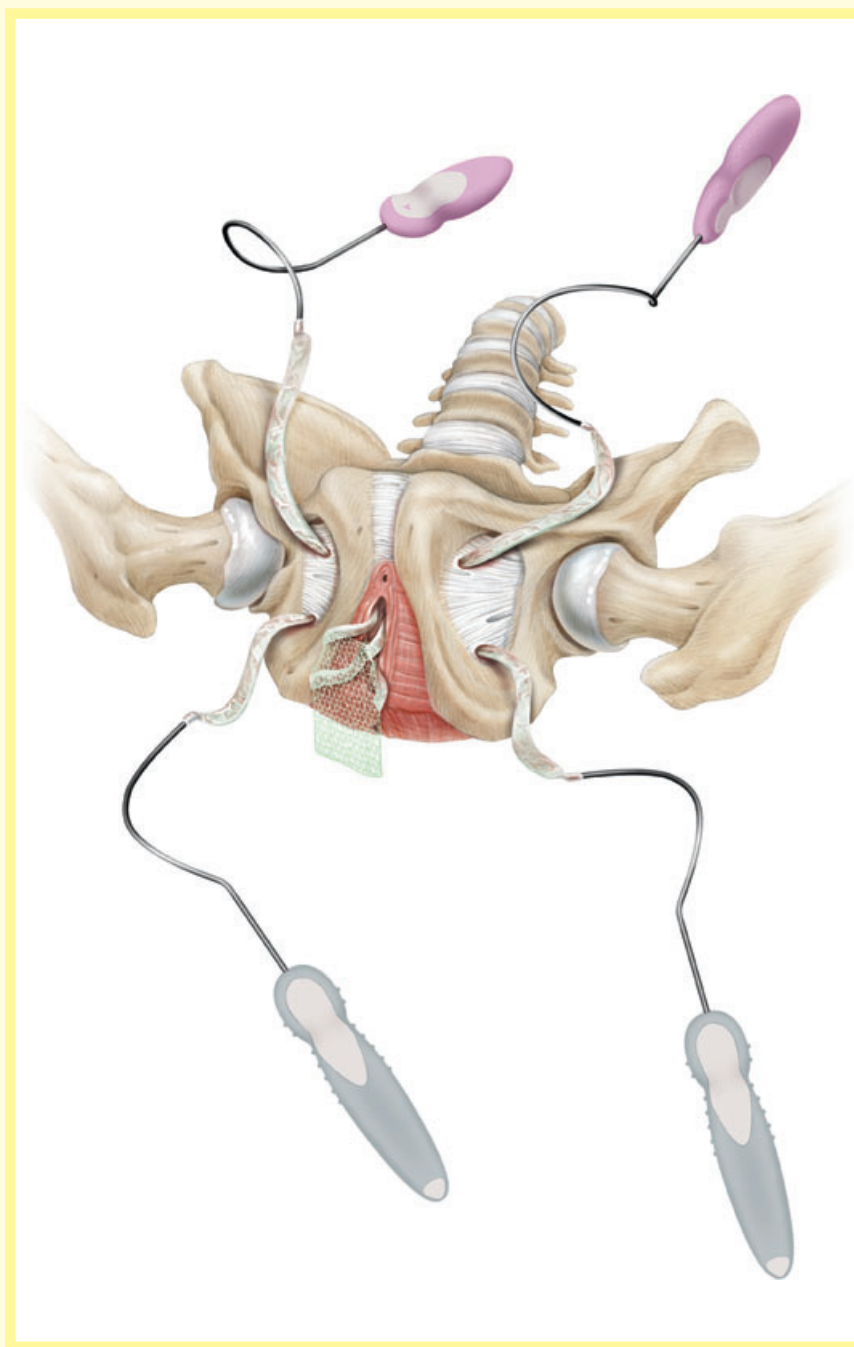
**Figure 5**

Confirm that entry point markings are anatomically appropriate by vagino-vulvar palpation using thumb and index finger. This means that the needles should be able to be guided digitally from the medial edge of the ischio-pubic ramus out of the vagina to avoid bladder perforation. A 30° inclination is used for the introduction of the superior needles.

Figure 6

The inferior needles are inserted with the handle at 90°; this allows for smooth passage around the thicker part of the bone and guides the needle from the medial edge of the ischio-pubic ramus out of the vagina.

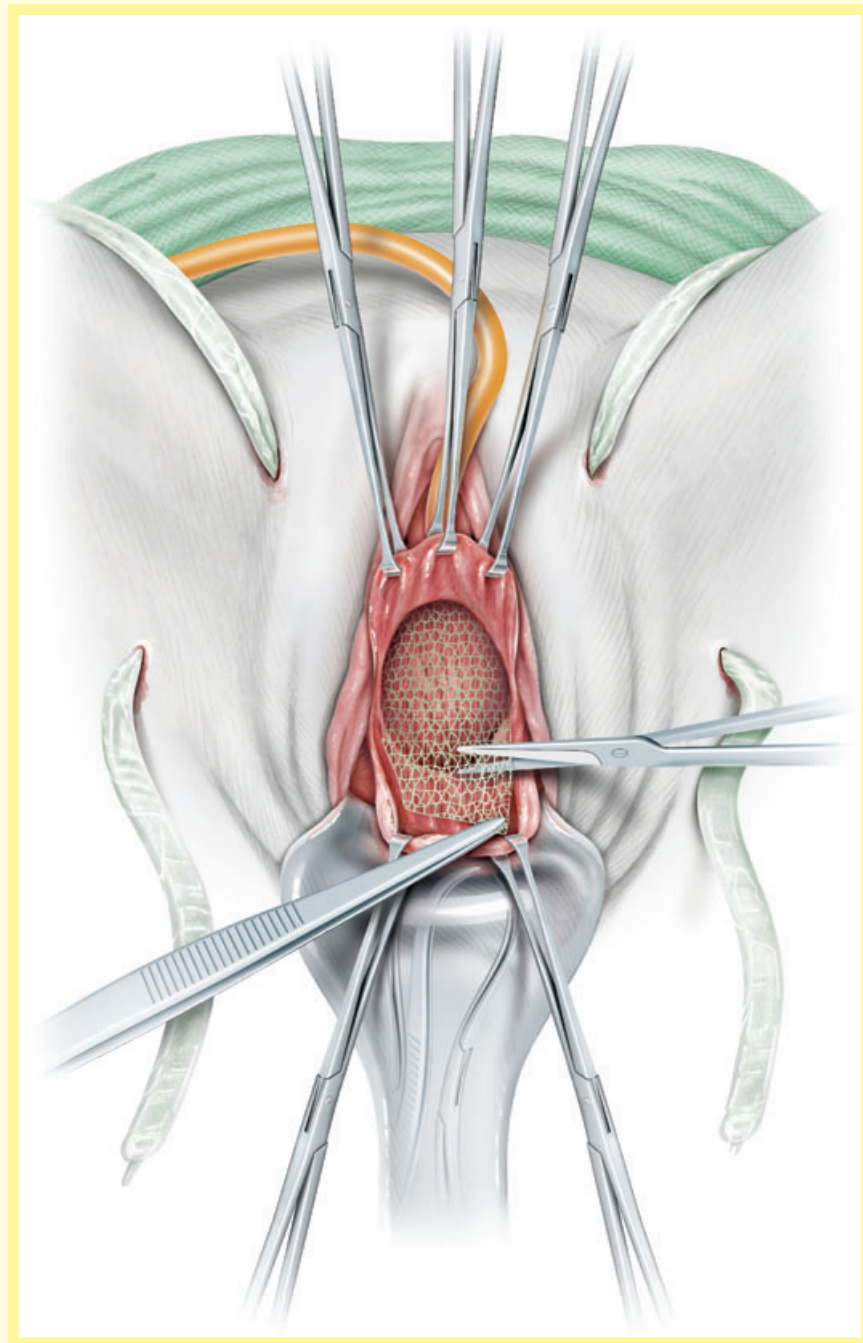


**Figure 7**

Once the needles are in place, the mesh is prepared for connection to the tip of the needles. The handle might have to be rotated to 45° to facilitate the connector fixation.

Figure 8

Pull each arm through until the 'armpit' is at the lateral edge of the cystocele. The mesh should now sit underneath the cystocele in a tension-free manner. Some folding of the mesh is expected. The tail of the central mesh should be drawn down to the lowermost portion of the cystocele. Fixing the tail at this point or leaving it free is the surgeon's preference. The redundant tail should be trimmed off. The vaginal wall is rolled over the mesh, avoiding superposition of the incision with the mesh, and consequently avoiding its exposure and infection.



POSTOPERATIVE CARE

Postoperative vaginal packing and a catheter should be left to surgeon's discretion. Antibiotic and analgesic therapy is recommended, according to local protocol. Sexual and physical activities may resume after 1 month.

This technique represents a major advance in the management of pelvic floor dysfunction, because it is safe and minimally invasive, providing adequate support for the bladder and correcting lateral defects. Our initial experience shows a clear trend for lower

complication rates than with traditional procedures, e.g. dyspareunia and vaginal stenosis, occurring in 19–32% of cases [4]. Furthermore, this technique allows urologists and gynaecologists to play an important role in reconstructive pelvic floor surgery.

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