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# INFRACOCCYGEAL SACROPEXY (ICS) AND TENSION-FREE VAGINAL TAPE (TVT) IN THE TREATMENT OF FOURTH DEGREE UTEROVAGINAL PROLAPSE WITH STRESS INCONTINENCE ASSOCIATED

## Aims of Study

The aim of the study was to observe the efficacy and safety of ICS with TVT associated in patients with third-fourth degree uterovaginal prolaps with stress-incontinence associated. The advantages of the combination of these new minimal invasiveness procedure, that create artificial neoligaments by inserting woven nylon tapes along their anatomical path, were examinated.

### **Methods**

Since January 2003 two ICS were performed in two patients with fourth degree uterovaginal prolapse with stress incontinence, by spinal anesthesia, 72 and 68 years old, respectively. After vaginal hysterectomy and cistopexy by traditional technique, under tension a longitudinal full-thickness incision approximately 4-5 cm wide was made in the posterior vaginal wall 1.5 cm below the hysterectomy scar line. Bilateral 0.8 cm perineal skin incision were made 2 cm lateral and below the external anal sphincter. The IVS Tunneller, was placed into the ischiorectal fossa for a distance of 4 cm, after digital guidance. At this point it was gently turned inwards and vaginal examination performed to determine the plane for passage through the rectovaginal fascia, so as to reach the incision. Rectal examination was performed during and after tape insertion to ensure there was no rectal perforation. The procedure was repeated on the controlateral side.

The tape was secured to the anterior vaginal vault in three points and also to remnants of the uterosacral ligaments. Posterior vaginal wall was sutured and minimal traction of the inferior extremity of tape determine tension free support of vaginal structures. Tension free vaginal tape (TVT) by traditional tecnique was performed after positive stress test.

### **Results**

Both patients were dismissed after 48 hours, without intra and post postoperative complications. The minimally invasive, minimal patient discomfort and effectiveness of the infracoccigeal sacropexy procedure in the treatment of fourth degree uterovaginal prolapse were confirmed.

Our experience suggest that ICS has similar efficacy to other more established surgical techniques to cure fourth degree uterovaginal prolapse, but with less surgical morbidity and patient discomfort.

### **Conclusions**

Fourth degree uterovaginal prolapse is a frequent disease in post-menopausal period, that is characterized by eversion totally of uterus, bladder and rectum from vaginal ostium. It is characterized by anatomical and functional loss of support and suspension mechanisms of pelvic viscera. Infact, the collagen damage of uterosacral and cardinal ligaments, determines the difficulty to repair and to suspend vaginal structures after vaginal hysterectomy. Hystorically, vaginal suspension after hysterectomy carried out by Mc Call culdoplasty, but the anatomical and functional damage of uterosacral and cardinal ligaments endurance, often limited the results of this technique. The alternative technique, ICS, was based on the conclusions drawn from the anatomical studies by De Lancey: the surgical plan was to reinforce the three levels of fascial vaginal support, level 1 by implanting a tension-free tape to create an artificial uterosacral neoligament level 2 by reinforcement of rectovaginal fascia, and level 3 by repair of the perineal body. These anatomical and functional explanations persuaded us to utilize this new technique in the treatment of total uterovaginal prolapse.

ICS is the first application of the Tension-free vaginal tape principle to the posterior part of the vagina. The purpose of the tape was to restore level 1 support by anchoring the anterior vaginal wall apex. The purpose of the posterior bridge repair was to create a critical structural mass in the posterior and latera walls so as to prevent inward collapse of the vaginal walls.

Level 3 restoration provided a firmer anchoring point for the lower pelvic floor muscles to stretch the vagina backwards, an important factor in pelvic organ support. TVT associated procedure assures urinary continence after vaginal hysterectomy, that often is cause and effect of stress-incontinence.

ICS and TVT are a minimally invasive procedures that attemp to restore normal anatomy using a prosthetic graft, with short operative times, low complication rates, poor post-operative pain and short hospital stay. ICS appears to be a simple procedure and, once learnt, it is. It is essential, however, that is not be undertaken without adequate training.