Int Urogynecol J (1994) 5:247–248

International Urogynecology Journal

Case Report

Vaginal Delivery After Pubovaginal Sling Surgery

C. C. Fitzpatrick[1], S. J. Swierewski III[1], J. W. Konnack[1], E. J. McGuire[1] and J. O. DeLancey[2]
[1]Section of Urology and [2]Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, Michigan, USA

Abstract: For pregnant women who have had previous successful surgery for genuine stress urinary incontinence, an elective cesarean section is generally recommended. Many of these patients are multiparous and can be expected to have a relatively short and uncomplicated labor. We report a case of vaginal delivery after a pubovaginal sling and urethral diverticulectomy with preservation of continence at 1 year.

Keywords: Anti-incontinence surgery; Genuine stress urinary incontinence; Labor; Pubovaginal sling; Urethral diverticulum

Introduction

It is standard practice to postpone surgery for genuine stress urinary incontinence until after the completion of childbearing, and not to recommend further pregnancy in women who have undergone successful anti-incontinence surgery [1]. For those who become pregnant after successful surgery, an elective cesarean section is considered by many to be mandatory. Many such patients are, however, multiparous and can be expected to have a relatively short and uncomplicated labor. We report a case of vaginal delivery after a pubovaginal sling and urethral diverticulectomy with preservation of continence at 1 year.

Case Report

A 34-year-old gravida 3 para 2 caucasian woman was referred to the combined gynecology/urology clinic at 34 weeks gestation for a recommendation on how she should be delivered. Fourteen months previously she had undergone a successful pubovaginal rectus fascial sling suspension and urethral diverticulectomy for severe Type III stress urinary incontinence and a large urethral diverticulum (Fig. 1). Her obstetric history revealed that she had had two previous normal vaginal deliveries. At the time of her presentation she had no urologic symptoms and expressed a strong desire to deliver vaginally. Vaginal examination confirmed a well-supported bladder neck and base and normal

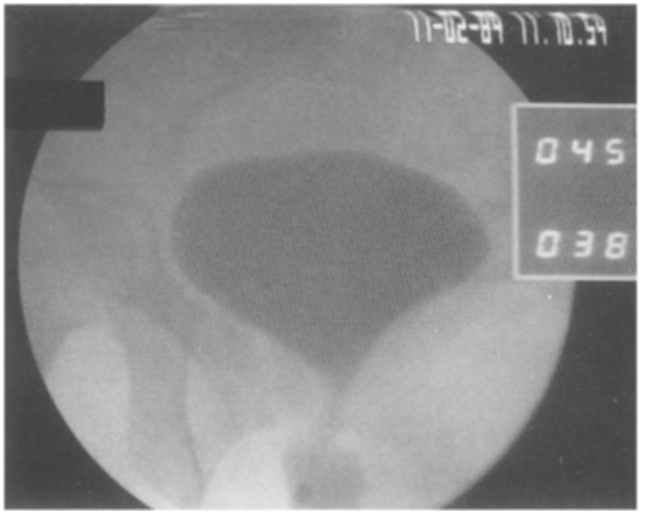

Fig. 1. Preoperative fluorourodynamics demonstrating Type III stress incontinence with a widely open bladder neck and a large urethral diverticulum (leakage at 45 cmH_2O intra-abdominal pressure).

Correspondence and offprint requests to: Dr Christopher Fitzpatrick, Urogynecology Clinic, Coombe Lying-in Hospital, Dolphins Barn, Dublin 8, Ireland.

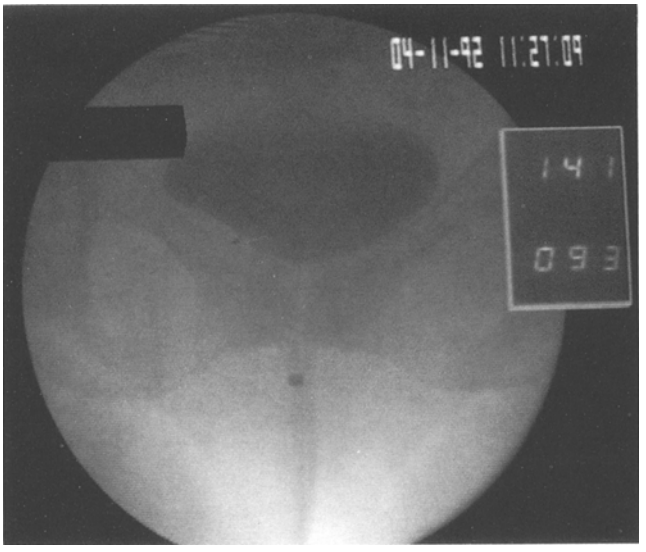

Fig. 2. Fluorourodynamics 1 year postdelivery demonstrating an intact pubovaginal sling, no recurrence of the urethral diverticulum and no stress incontinence (absence of leakage at 141 cmH_2O intra-abdominal pressure).

urethral contour. It was decided to allow a carefully conducted trial of labor in this particular case. She was admitted at 39 weeks in spontaneous labor. Epidural analgesia was provided. The bladder was drained continuously via an indwelling Foley catheter, which was removed just prior to the commencement of maternal pushing. The duration of the first stage of labor was 2 hours and 55 minutes and that of the second stage was 52 minutes. Maternal pushing was commenced at station 0 cm and lasted 23 minutes. An early midline episiotomy facilitated the atraumatic delivery of a liveborn infant weighing 3.5 kg. During the pregnancy and puerperium this patient experienced no stress urinary incontinence. Fluorourodynamic evaluation 1 year after delivery revealed an intact pubovaginal sling, a normal urethral contour and no stress urinary incontinence (Fig. 2).

Discussion

In the reported case, a trial of labor was considered a reasonable option in view of the presence of an intact, pubovaginal fascial sling and the patient's own wish to deliver vaginally. In addition, the estimated fetal weight at term approximated the previous infant weights and there were no obstetric reasons for abdominal delivery. It was also noted at the time of delivery that the sling tissue had not undergone the same pregnancy-induced softening as the lower genital tract. Bladder drainage during labor and an early episiotomy were also considered to be important factors in this successful outcome.

This is the first case report of vaginal delivery after successful anti-incontinence surgery which provides objective evidence of continence postdelivery. Although we are cognizant of the risk of trauma associated with vaginal delivery and do not, in principle, encourage vaginal delivery after successful anti-incontinence surgery, we nevertheless feel that in certain carefully selected multiparae, vaginal delivery may be permitted. As there is a dearth of published information on this subject, we would welcome the experience of others in the obstetric management of such patients.

Reference

1. Cutner A, Cardozo LD, Wise BG. The effects of pregnancy on previous incontinence surgery. Case report. *Br J Obstet Gynaecol* 1991;98:1181–1183

EDITORIAL COMMENT: Whether or not to allow a patient to deliver vaginally after a pubovaginal sling or any other surgical procedure for stress incontinence is an unanswered question. There are no studies in the literature to guide us when we deal with individual patients faced with this decision. Initially, the clinical success of the prior procedure should be determined. If the patient is cured of her incontinence, it is difficult to subject the parous patient to a repeat of the same event, i.e. vaginal delivery, which probably contributed to the development of her incontinence in the first place. It is easy to visualize all of the attachments of the urethrovesical junction achieved by the surgical procedure being torn down by the process of labor and delivery. This case report serves to remind us that it is possible to deliver vaginally and retain continence after a pubovaginal sling procedure. Since the predominating opinion is that a Cesarean section is warrented after successful anti-incontinence surgery, the patient who elects to proceed with vaginal delivery must be warned that there is the possibility of the need for further surgery for incontinence post partum and that such a repeat procedure will have a diminished chance of success.