



## CASE REPORT

# Vaginal Erosion of the TVT Band: Bimodal Management Including the Contribution of Coelioscopy

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## Abstract

It's about a 63-year-old patient who had benefited of a tension-free vaginal tape for stress incontinence at the age of 41. The procedure resulted in vaginal wall erosion revealed by repeated urinary tract infections, suspected by a digital per-rectal examination and confirmed by under-valve examination. The total removal of the strip was performed vaginally and laparoscopically. The post-operative course was simple.

## Keywords

Vaginal erosion, TVT strip, Urinary infections, Coelioscopy

## Introduction

The sub-urethral sling (SUB) is a commonly used therapeutic device in urology for the treatment of stress incontinence caused by sagging of the urethra. The technical ease and the increasing number of patients consulting for urinary incontinence should not make us forget the respect of a good indication and the complications related to the placement of the tape [1]. We are reporting a rare case of post TVT vaginal erosion and discussing the diagnosis and therapeutic management.

## Presentation

It's about a 63-year-old female patient who had benefited of a TVT for stress urinary incontinence. The long term post-operative follow-up was favourable. There was no more urinary leakage on effort. Three

years ago, she started to have recurrent urinary tract infections with haematuria which was treated as cystitis without improvement. Two years later, she started to present irritative lower urinary tract symptoms (burning micturition, urgenturia and nocturia with 3-4 nocturnal lifts) evolving by flare-ups for which she was put on anticholinergic drugs. The evolution was marked by the appearance of undesirable effects of the anticholinergic drugs (myasthenia and vision disorders) which were stopped earlier. Per vaginal examination, a firm structure was palpated in the anterior vaginal walls, reminiscent of a plastic mesh. Ultrasound of the urinary tract and urethrovesical fibroscopy were normal. Under-valve examination revealed: an erosive strip of the anterior vaginal wall (Figure 1). A bladder hyperactivity without detrusor hyperactivity was noted in the urodynamic assessment. The management consisted of removal of the entire strip by vaginal and laparoscopic approach (Figure 2 and Figure 3A). The vaginoplasty was performed at the end of the procedure (Figure 3B). The patient was discharged at D1 and reviewed one month later, she was continent.

## Discussion

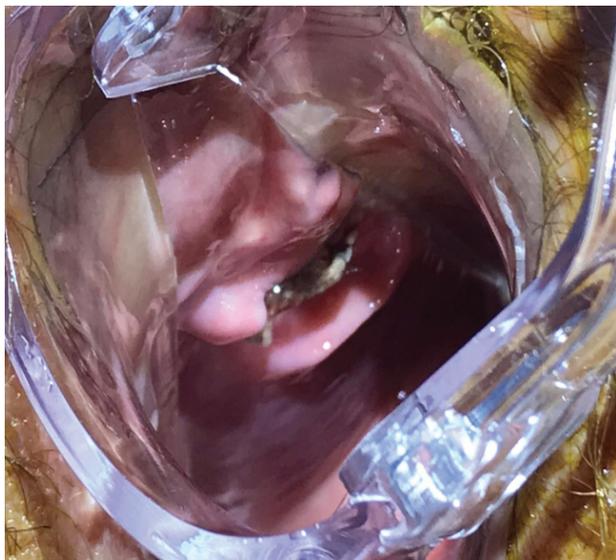
Erosions are well-known complications of synthetic materials. The fibrosis that created by the rejection process around the material leads to the erosion and not the material itself according to the literature. Karram, et al. [1], in a series of 350 TVTs reported only three cases of erosions [2] its incidence is very low (0.9%).



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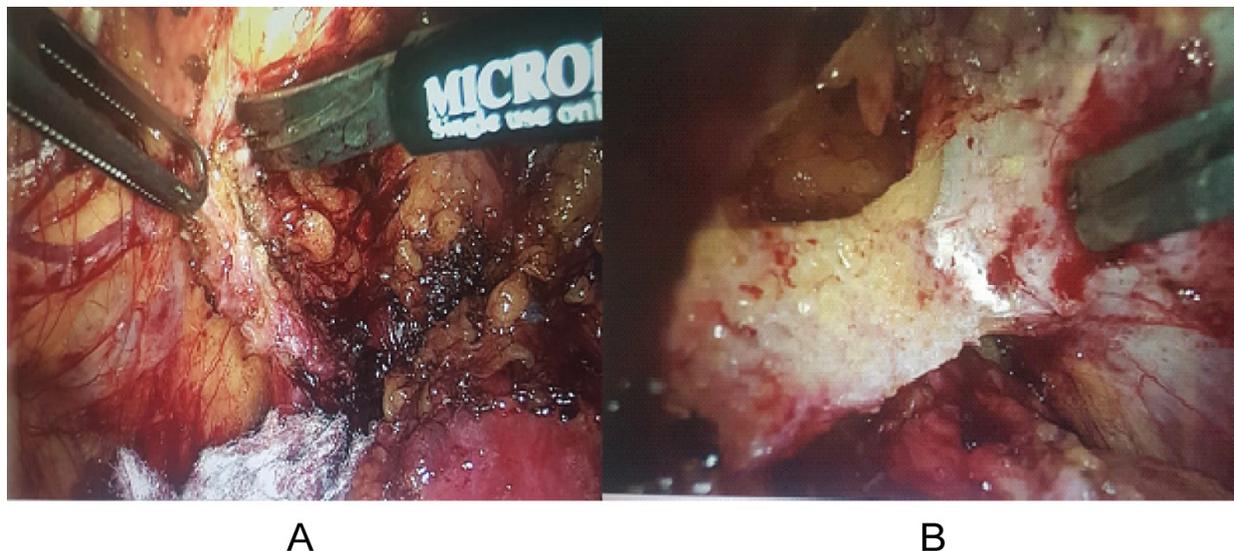
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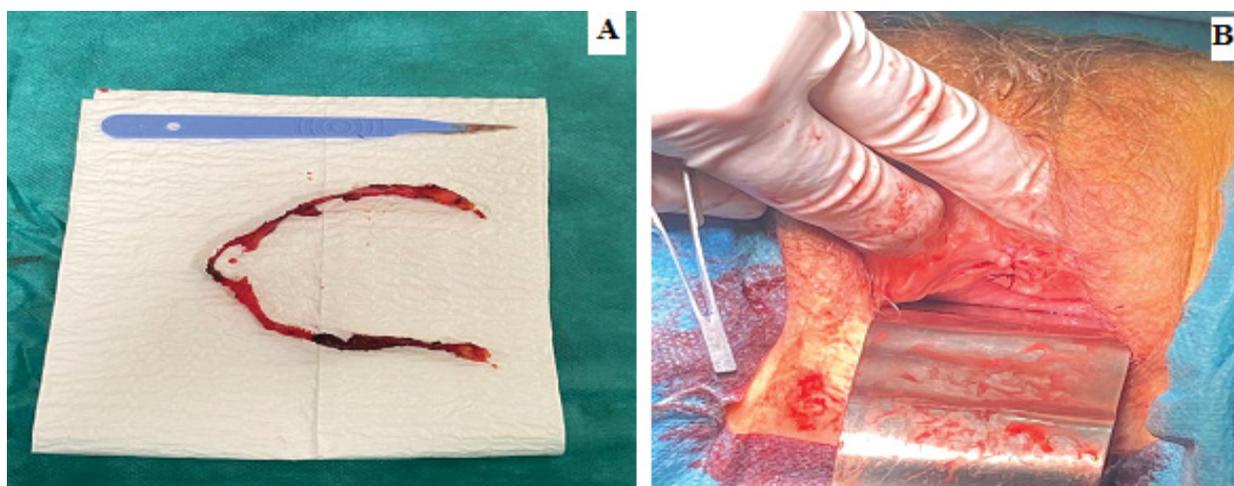


**Figure 1:** Under-valve examination showing erosion of the vaginal strip.

Polypropylene has long proved its superiority in terms of tolerance over other materials. Recent studies have shown that woven monofilament strips should be preferred because only monofilament strips provide sufficient space between two threads to allow phagocytosis of bacteria by macrophages. Below a space of ten microns, the multiplication of bacteria is possible but not their phagocytosis because macrophages are bulky cells [3]. Symptoms leading to the suspicion of bladder erosion are recurrent urinary tract infections, urgency, urinary frequency or hematuria [4]. Removal of the entire strip poses relatively few technical problems if this procedure is performed early. It consists of making an incision under the urethra and by dissecting the vagina up to the ischio-pubic branches, the strip can be pulled out by progressively “winding” it around a dissector [5]. Taking into account the morbidity generated by such a surgery, one could therefore be satisfied in the first instance with sectioning only the



**Figure 2:** Retro pubic dissection of the TVT strip by laparoscopic approach (a), almost complete release of the strip (b).



**Figure 3:** Part of the strip after removal (A), Vagino-plasty after removal of the strip (B).

visible part of the strip in the vagina. In this particular case, the patient had been wearing the sling for 22 years, and a complete removal by laparoscopy and vaginal approach was performed.

## Conclusion

A recurrent urinary tract infection or bladder over activity in a patient operated on with a sub-urethral sling should raise the suspicion of the spine sling erosion. In case of vaginal erosion, even asymptomatic, the sling must be considered as chronically infected body, and it must be removed.

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