

# Total Pelvic Floor Repair after failure of minimally invasive approach for the treatment of severe faecal incontinence: Case Report

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## Abstract

In our case the failure of minimally invasive treatment is probably due to misplacement/migration of the inter-sphincteric prosthesis associated to the choice of a procedure not suitable for the case. Infact main indication for this kind of procedure seems the presence of an internal sphincter defect. TPFIR is indicated also in patients with a previous failed treatment of their anal incontinence, leading to good results.

**Keywords:** Anal incontinence, Total pelvic floor repair, Idiopathic incontinence.

## INTRODUCTION

Anal incontinence is by definition the inability to retain gas or stool. This condition is frequently diagnosed in women during elderly age <sup>[1,2]</sup>.

The complex mechanism responsible for anal continence is based on the coordination between rectum and anal canal, the stool consistency, the integrity of rectal and anal sensation, as well as of the muscular complex, the sealing effect of haemorrhoidal cushions. Alterations in one or more of those mechanisms could be responsible of a certain degree of anal incontinence <sup>[3]</sup>. In summary the 3 main causes of anal incontinence are: 1) loss of integrity in muscular structures 2) neurological disorders responsible for loss in muscular function or mucosal sensibility 3) stool consistency.

Anal incontinence can be classified according the aetiology <sup>[4]</sup>. The condition can be stratified in different degrees by numerous score systems <sup>[5]</sup>. In clinical practice anal incontinence is usually divided in mild (only gas or liquid stool) and severe (also solid stool) as well as passive or active/urge incontinence. All this information allows the Clinician to choose the best treatment for the patient.

In patients where conservative treatment has failed is of

paramount importance the pre-operative workout based on anorectal manometry, neurophysiological evaluation of the sphincter complex with pudendal nerve motor latency test, endoanal ultrasound <sup>[6]</sup>.

Surgical treatment is going to be driven by the results of the instrumental evaluation.

## CASE REPORT

We report the case of a 68 years old women evaluated in our Outpatient Clinic for severe anal incontinence. St. Mark's Continence Score was 18. The patient underwent previous stapled prolassectomy for rectal prolapse. She developed a severe anal incontinence treated with bulking agents. Prior to our evaluation the patient underwent anorectal manometry which revealed a low basal tone, as well as a low increase in voluntary contraction during squeeze.

At clinical evaluation a patulous anus without major sphincter defects was recorded. A 360° endoanal ultrasound was performed revealing a cranial dislocation of the intersphincteric prosthesis at the level and above levator ani muscle without major lesions in the sphincteric complex (Fig. 1-3).

The procedure was performed in lithotomy position under spinal anesthesia. Rectal cleansing with enema was performed the

night before and the morning of surgery. Antibiotic prophylaxis (Cefazolin 2 g + Metronidazole 500 mg e.v.) was administered 30 minutes before incision. Prophylaxis for venous thrombosis was prescribed according to risk score. The patient was

prepped and draped in standard fashion. We performed an anterior levatorplasty with sphincteric plication associated to a post-anal repair (Fig. 4-7). This procedure is also known as Total Pelvic Floor Repair (TPFR).



Figure 1

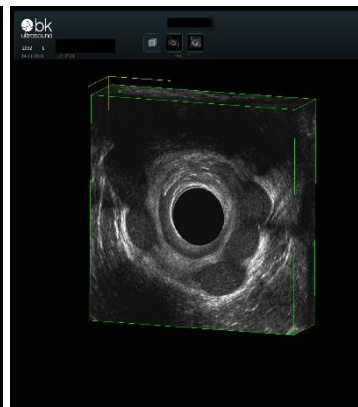


Figure 2

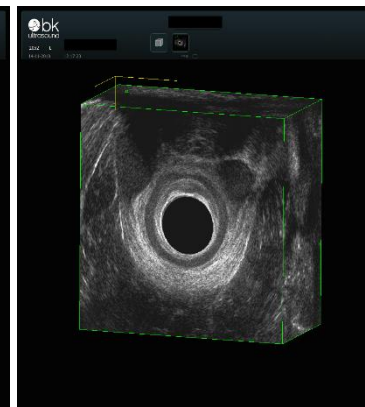


Figure 3



Figure 4



Figure 5



Figure 6

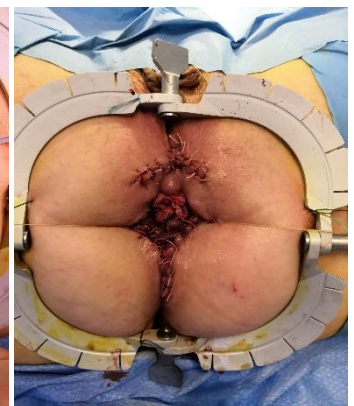


Figure 7

The patient received post-operative opioid based intravenous analgesia by means of a 24 hours continuous elastomeric infusion. She was maintained on clear liquids for the first 24 hours, then allowed to eat a low residue diet. An osmotic laxative was administered from first post-operative day. Patient was invited to walk freely in the ward. A soft cleansing of the skin incisions was suggested. Local application of antiseptic and healing cream was prescribed for 2 to 4 weeks according to healing process. Patient was discharged after she passed stool on the 4<sup>th</sup> post-operative day. Clinical evaluation was scheduled at 7 days, 4 weeks, 3 and 6 months. The patient developed a breakdown of skin sutures with a delay in wound healing. At last clinical evaluation (3 months) the healing process was completed. A reduction to 7 in St. Mark's Continence Score was recorded.

## DISCUSSION

Anal incontinence is responsible for a reduction in patients' quality of life. A complex mechanism is responsible for the ability to maintain stool and gas continence. Considering this last assumption, the causes responsible for incontinence are frequently multiple. The lost in the ability to control evacuation

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is related to the sum of different factors leading to breakdown of the physiologic mechanism.

Patients affected of anal incontinence are elected for surgery only after medical treatment failure and in presence of severe anatomical or neurological dysfunctions. Considering the numerous surgical procedures available nowadays in literature [7-10], treatment choice is going to be driven by the main pathological disturbance. In case of a weak sphincter complex without ultrasound evidence of any disruption, the surgical procedure most suitable might be the reinforcement of the whole pelvic floor.

## CONCLUSION

In our case the failure of minimally invasive treatment is probably due to misplacement/migration of the inter-sphincteric prosthesis associated to the choice of a procedure not suitable for the case. Infact main indication for this kind of procedure seems the presence of an internal sphincter defect.

TPFR is indicated also in patients with a previous failed treatment of their anal incontinence, leading to good results.

## Compliance with ethical standards

**Conflict of interest:** The authors declare that they have no conflict of interest.

**Ethical approval:** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent:** Informed consent was obtained from all individual participants included in the study.

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