

Fekal inkontinansa biofeedback'ten yapay sfinktere tedavi yöntemleri

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EBSQ Coloproctology

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Anal inkontinans tedavi seçenekleri

Konservatif tedavi :

- Diyetin düzenlenmesi
- Medikal ajanlar
- Perineal egzersiz
- Biofeedback tedavi
- Perianal enjeksiyon
- Anal tıkaç

Cerrahi tedavi

Anorektal kas onarımı
Primer sfinkter onarımı
Apozisyon
Plikasyon
Overlapping sfinkteroplasti
Pelvik taban onarıcı girişimler
Postanal onarım
Levatoroplasti
Total pelvik onarım

- **Neosfinkter prosedürleri :**

- Statik anal sfinkter
- Gluteus maksimus transpozisyonu
- Gracilis transpozisyonu
- Anal serklaj (Thiersch)
- Dinamik anal sfinkter
- Stimüle gracilis
- **Yapay anal sfinkter**

**Sakral sinir
stimülasyonu**

Fekal diversiyon



Beslenme ve Diyet

- Hastalara uygun bir diyet ve düzenli bir defekasyon alışkanlığı kazandırılması ilk basamak olmalıdır.
- Yemeklerden sonra defekasyona çıkma durumu öngörülerek değerlendirilmeli.
- Gastrokolik refleks en yemeklerden sonra uyarıldığı için bu saatler defekasyon için uygun bir zamandır.



- Diyareye neden olabilecek gıdalardan kaçınmak,
- Şekerli besinler, kafein, yüksek yağlı ve baharatlı yiyecekler gibi
- Dışkıyı katılaştıran besinleri tüketmek ve yüksek lifli diyet sfinkterler tarafından daha kolay kontrol edilebilen kıvamlı bir dışkı sağlar.



- Yeterli miktarda sıvı alınması
- Defekasyon için yeterli zaman ayrılması
- Aşırı ıkmama perineal çökmeyi önlemek için önemlidir.
- Kolon geçiş süresinin uzatılabilmesi, su emiliminin arttırılabilmesi, sfinkter relaksasyonunun önlenmesi veya tonusunun arttırılması amacıyla medikal preparatlar denenebilir.

Farmakolojik Tedavi

- Loperamid hidroklorid, difenoksilat/atropin sülfat gibi anti-diyare ilaçları genellikle kullanılmaktadır.
- Günde üç kez 4 mg loperamidin gaita sıklığını azalttığını, kolonik transit zamanını uzattığını, gaita ağırlığını azalttığını ve anal istirahat sfinkter basıncını arttırdığı tespit edilmiştir.

Kullanılan ilaçlar

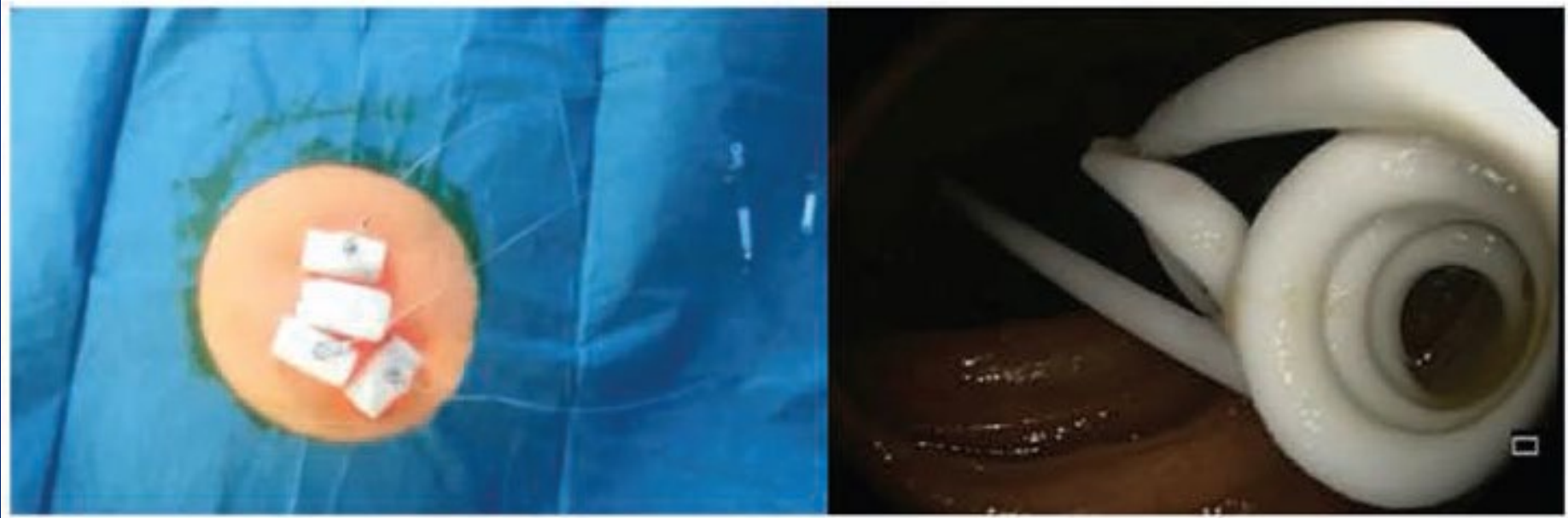
- Loperamid
- Difenoksilat/atropin
- Kodein
- Kolestiramin/kolestipol
- Östrojen
- Fenilefrin
- Sodyum valproat

Temizleyici lavman veya süpozituar

ORIGINAL CONTRIBUTION

Antegrade Enema After Total Mesorectal Excision for Rectal Cancer: The Last Chance to Avoid Definitive Colostomy for Refractory Low Anterior Resection Syndrome and Fecal Incontinence

Romain Didailler, M.D.^{1,2} • Quentin Denost, M.D., Ph.D.^{1,2} • Paula Loughlin, M.D.^{1,2}



Pelvik Taban Kas Egzersizleri

- Pelvik taban kaslarının ve external sfinkterin tonusunu arttırmaya yönelik, perineal egzersiz ve fizik tedavi programları yaptırılabilir.
- Amaç: pelvik taban kas hacmini ve kontraksiyon gücünü arttırmaktır.
- Bu egzersizler her gün düzenli olarak yapılmalı ve eşit gevşeme aralıklarıyla 5- 10 sn. kontraksiyon şeklinde yapılmaktadır.



Biofeedback

- **Biofeedback = uygulamalı fizyopsikolojik geribildirim:**

İstemsiz bedensel fonksiyonlar üzerinde kontrol kazanmak için görsel veya işitsel geri bildirimlerin kullanılmasını içeren bir zihin-beden tekniğidir.



- Biofeedback adı, fonksiyonları yönetebilecek teknikler geliştirebilmesi için hastaya biyolojik sinyallerin geribildirimi anlamına gelir.
- Biofeedback tepkisinin meydana gelmesiyle hastalar biofeedback ekipmanı üzerindeki sensör okuyucu vasıtasıyla çabalarının sonuçlarını bilfiil görebilir ya da duyabilir.





- Biofeedback, temelde aynı sistemlerin etkinliği hakkında bilgi sağlayan, istek üzerine manipüle edebilmek amacıyla kullanılan birçok fizyolojik fonksiyon hakkında daha fazla farkındalık kazanma sürecidir.



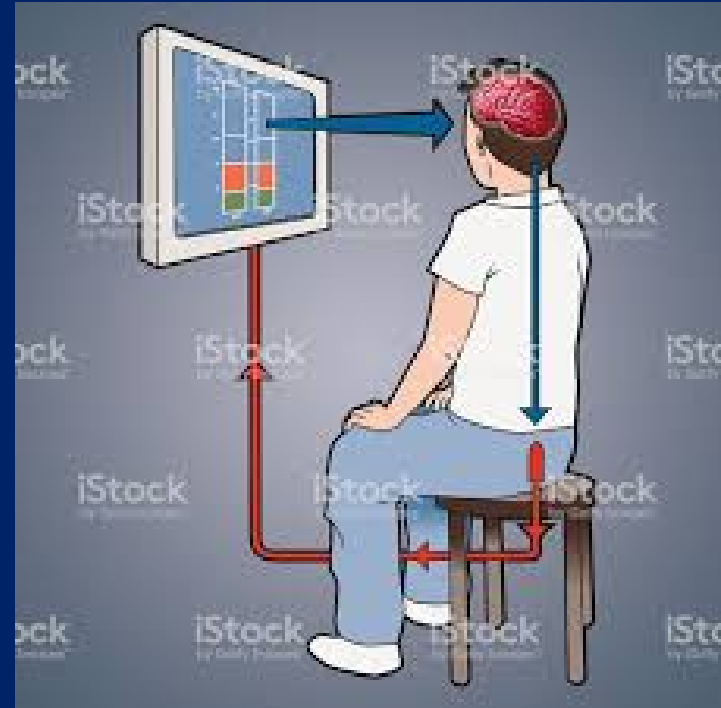
Anorectal biofeedback

- İlk tavsiye edilen tedavi seçeneğidir.
- Uzman birinin gözetiminde, pelvik taban kasları ve anal sfinkterlerin çalıştırılması, abdominal, gluteal ve anal sfinkter kaslarının koordinasyonun geliştirilmesi ve anorektal duyuşal algının arttırılması amacı ile planlanan bir tedavi yöntemidir.

- İstemli sfinkter aktivitesini ölçmek için hastanın anüsüne balonlu bir sonda yerleştirilir.
- Düzenek, işitsel veya görsel uyarı veren bir monitöre bağlanır.
- Hasta sfinkterini kasıp, anal basıncı arttırdığında oluşan uyarı gözlenmektedir.
- Böylece hastanın bu yanıtı geliştirmesi için egzersiz yapmasına olanak sağlanmaktadır



- Bu teknikler bir kez öğrenilip de hasta gevşemek ya da belirtileri ortadan kaldırmak için zihinde canlandırma yöntemine geçebildiğinde, biofeedback ekipmanına daha fazla ihtiyaç duyulmaz.
- Artık hastanın elinde sorunlarla baş etmesi için güçlü, taşınabilir ve benlik-güdümlü bir tedavi aracı vardır.



Başarı?

- **Güvenli, noninvaziv ve göreceli olarak ucuz bir alternatif tedavi yöntemidir.**
- Başarı; hasta motivasyonu, rektal duyu kapasitesinin varlığı ve kasılabilen sfinkter varlığı ile doğru orantılıdır.
- Sfinkter simetrisi ve rektal kapasitenin korunduğu vakalarda başarı oranı %60'lara ulaşmaktadır



ORIGINAL ARTICLE

Long-term outcome of anorectal biofeedback for treatment of fecal incontinence

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Abstract

Background: Long-term outcome data for anorectal biofeedback (BF) for fecal incontinence (FI) is scarce. Our aims were to describe the long-term symptom profile, quality of life, and need for surgery in FI patients following BF.

Methods: One hundred and eight consecutive female patients with FI who completed an instrumented BF course were identified for long-term follow-up. In 61 of 89 contactable patients, outcome measures were assessed at short-term (end of BF), mid-term (9 months median), and long-term (7 years median) follow-up after treatment.

Key Results: Long-term response rate (50% or more reduction in FI episodes/wk compared to before BF and not requiring surgical intervention) was seen in 33/61 (54%) patients. Thirteen of these had complete continence. Improvement was seen at short, mid, and long-term follow-up for patients' satisfaction and control of bowel function. In contrast, fecal incontinence severity index and quality of life measures, which improved in short and mid-term, were no different from baseline by long-term follow-up. Patients classified as short-term responders were far more likely to display a long-term response compared to short-term non-responders (68% vs 18%, $P < .001$). **Conclusions & Inferences:** Long-term symptom improvement was observed in more than half of FI patients at 7 year post BF follow-up. Quality of life improvements, however, were not maintained. Patients improving during the initial BF program have a high chance of long-term improvement, while patients who do not respond to BF should be considered early for other therapies.

KEYWORDS

biofeedback, fecal incontinence, long-term outcome

Perianal injeksiyon

- Otolog yağ dokusu, submukozal politetrafloroetilen, kollojen ve silikon içerikli implantlar bu amaçla kullanılan başlıca materyallerdir



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REVIEW

CrossMark

Anal Sphincter Augmentation Using Biological Material

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Introduction: The aim of this review is to provide an overview of the use of biological materials in the augmentation of the anal sphincter either as part of an overlapping sphincter repair (OSR) or anal bulking procedure.

Methods: A systematic search of PubMed was conducted using the search terms "anal bulking agents," "anal sphincter repair," or "overlapping sphincter repair." Five studies using biological material as part of an overlapping sphincter repair (OSR) or as an anal bulking agent were identified.

Results: 122 patients underwent anal bulking with a biological material. Anorectal physiology was conducted in 27 patients and demonstrated deterioration in maximum resting pressure, and no significant change in maximum squeeze increment. Quality of life scores (QoLs) demonstrated improvements at 6 weeks and 6 months, but this had deteriorated at 12 months of follow up. Biological material was used in 23 patients to carry out an anal encirclement procedure. Improvements in QoLs were observed in patients undergoing OSR as well as anal encirclement using biological material. Incontinence episodes decreased to an average of one per week from 8 to 10 preoperatively.

Conclusion: Sphincter encirclement with biological material has demonstrated improvements in continence and QoLs in the short term compared to traditional repair alone. Long-term studies are necessary to determine if this effect is sustained. As an anal bulking agent the benefits are short-term.

Keywords: fecal incontinence, anal sphincter repair, overlapping sphincter repair, anal encirclement, anal bulking, biological material

INTRODUCTION

Fecal incontinence (FI) affects between 1 and 10% of adults in varying degrees. Current epidemiological studies have shown that up to 1% of adults have regular episodes of FI that adversely impacts on their quality of life (1). Treatment modalities vary from conservative, with the use of anti-diarrheal medications such as loperamide and codeine, to non-operative interventions such as biofeedback strategies, to surgical management. Surgical options are usually indicated when continence is affected secondary to an anatomic disruption, such as a sphincter weakness or defect (2). Patients who have a history of colorectal surgery (dilatation), obstetric sphincter injury, or pelvic irradiation are also prone to fecal seepage and soiling (3).

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Carbon-Coated Microbeads Anal Injection in Outpatient Treatment of Minor Fecal Incontinence

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PURPOSE: Anal bulking agents are injected to pose a stronger obstacle to the involuntary passage of feces and gas. This prospective, multicenter study was designed to evaluate the safety and efficacy of Durasphere[®] anal injection for the treatment of fecal incontinence.

PATIENTS AND

with incontinence (22–83 years) underwent injection with carbon-coated microbeads in the outpatient setting. The patients were obstetric multiparous, with a mean age of 36.4 percent, and 33.3 percent of the patients had biofeedback training in 6 patients. Bowel sphincter bulking agent injection with antibiotic prophylaxis (Durasphere[®] with 1.5-inch, angle

RESULTS: After 3 months, the median American continent score (P=0.0074), did not change significantly. At 6 months (resting pressure P=0.008 and P=0.04). Two patients reported pain for a few

asymptomatic leakage of the injected material through a mucosa perforation, and two had distal migration of the Durasphere[®] along the dentate line.

CONCLUSIONS: Anal bulking agent injection is a safe treatment and can mitigate the severity of fecal incontinence.



for treating patients affected by fecal incontinence of minor or medium severity.

Supported by a grant from the University of Bari. Reprints are not available. Address of correspondence: Emergency and Organ Transplantation, Colorectal Surgery Unit, Policlinico, piazza G Cesare 11, 70124 Bari, Italy. E-mail: altomare@clichiru.uniba.it

Original Article

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Safety and Efficacy of Permacol Injection in the Treatment of Fecal Incontinence

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Purpose: Permacol has been gaining popularity in recent times for the treatment of fecal incontinence (FI). This study aims to evaluate the safety and efficacy of anal submucosal Permacol injection for FI over a 3-year period were included. Patients' data relating to obstetric history, anorectal/pelvic operations, type of FI, preoperative anorectal physiology results and follow-up details for outcome measures were collected. Preoperative and postoperative Cleveland Clinic Florida Incontinence Scores (CCFIS) were noted. Patients were surveyed by using a telephone questionnaire to assess the quality of life and other outcome measures. Data were analysed using SPSS ver.19.0.

Methods: All consecutive patients who underwent Permacol injection for FI over a 3-year period were included. Patients' data relating to obstetric history, anorectal/pelvic operations, type of FI, preoperative anorectal physiology results and follow-up details for outcome measures were collected. Preoperative and postoperative Cleveland Clinic Florida Incontinence Scores (CCFIS) were noted. Patients were surveyed by using a telephone questionnaire to assess the quality of life and other outcome measures. Data were analysed using SPSS ver.19.0.

Results: Thirty patients (28 females and 2 males) with a median age of 67 years were included in the study. Of those patients, 37%, 50%, and 13% were noted to have passive, mixed and urge FI, respectively. Six of the patients (20%) had repeat Permacol injections, 5 of whom had sustained responses to the first Permacol injection for a mean of 11 months. There was a significant improvement in the CCFIS from a baseline median of 12.5, mean 12.8 (interquartile range [IQR], 6–20), to a median of 3.5, mean 4.8 (IQR, 0–20), $P < 0.001$. Of the patients surveyed by telephone 89% were satisfied with their overall experience and the improvement in their symptoms following Permacol injections.

Conclusion: This study has demonstrated that Permacol injection for the treatment of FI is safe and effective and has no associated major complications. However, the results are not permanent; consequently, a significant proportion of the patients with an initial response may require repeat injections.

Keywords: Fecal incontinence; Permacol injection; Anal bulking agent

INTRODUCTION

Fecal incontinence (FI) is the involuntary loss of rectal contents through the anal canal [1, 2]. It is believed to be underreported by patients and underrecognised by clinicians. FI affects up to 8% of the adult population over the age of 65 years and up to 50% of nursing home residents [3, 4]. FI often has several contributory factors; therefore, diagnosing the cause or causes for each individual

is important. Appropriate treatment of this condition relies on accurate diagnosis and careful patient selection. The aims of the treatment strategies are to improve anal continence and quality of life and, when complete treatment is not achievable, to help patients to cope with their symptoms. The recent National Institute for Clinical Excellence (NICE) guidance in the United Kingdom on FI [5] emphasises the need for patients to have access to healthcare professionals with relevant training, skills, and experience. However, many healthcare professionals do not have expertise in the diagnosis and the treatment of FI and may only provide advice on techniques and products that can be used to manage the condition.

FI can be classified as urge or passive according to the symptoms presented by the patient. Since the introduction of endoanal ultrasonography, our understanding of sphincter function and the mechanisms of incontinence have greatly increased. It is now understood that defects in the internal anal sphincter (IAS) result in passive FI. In contrast, defects in the external anal sphincter (EAS)

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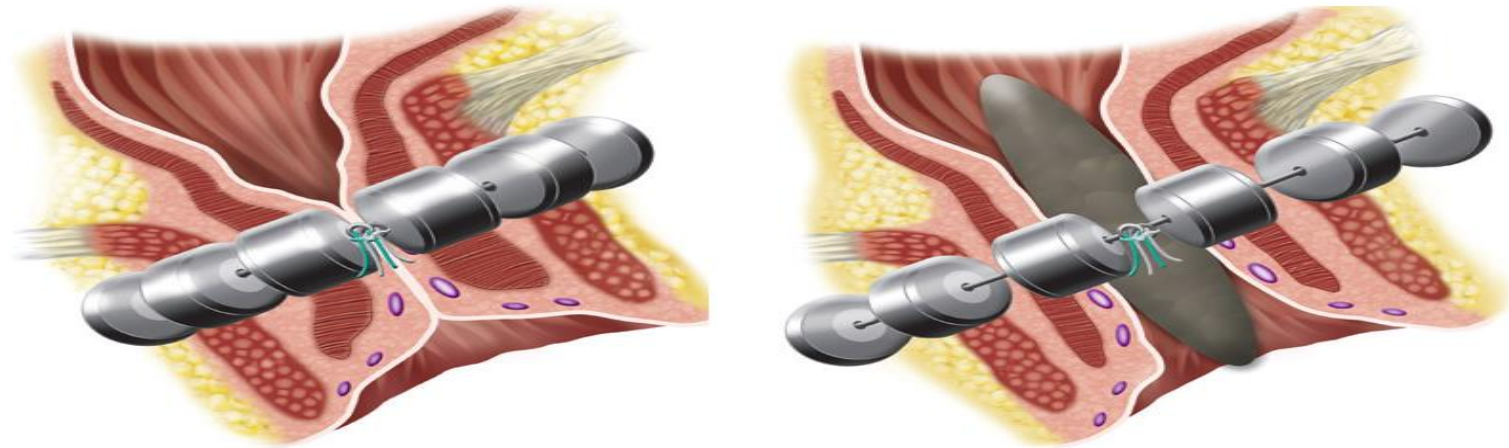
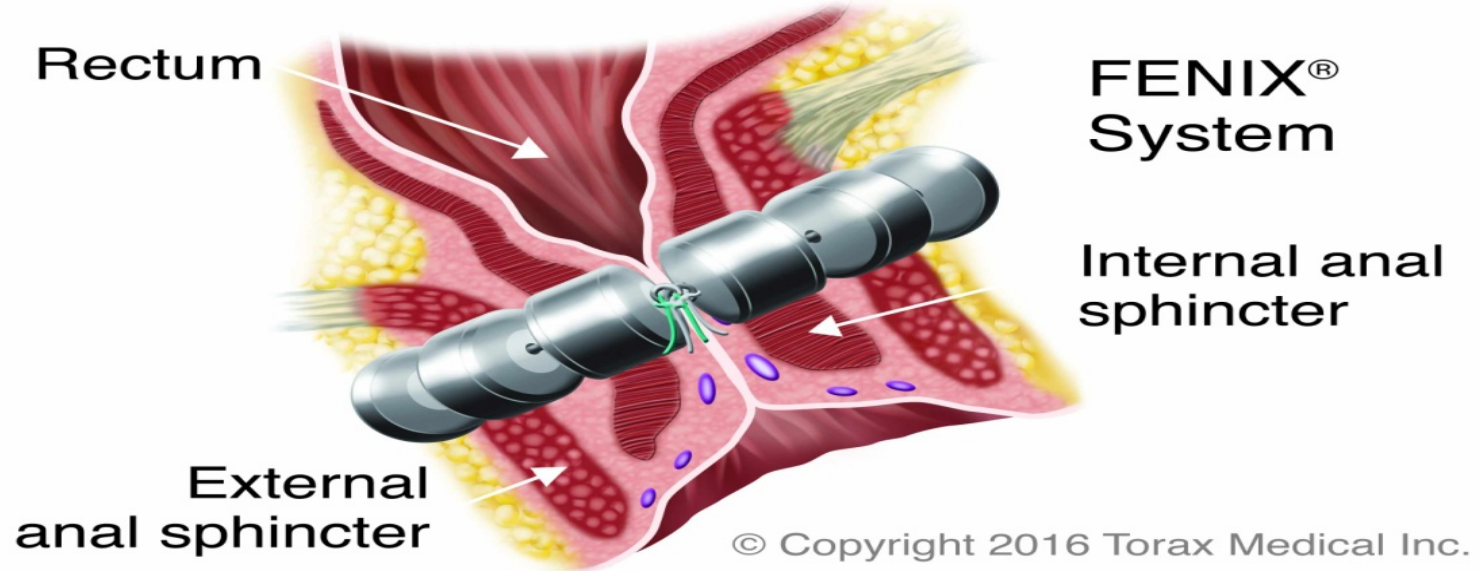
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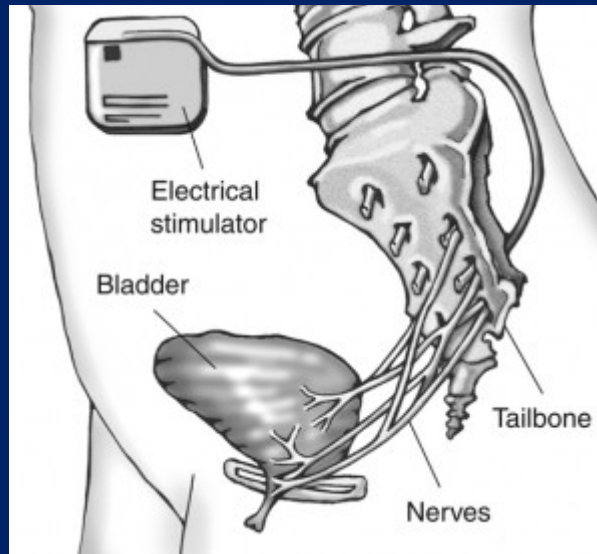
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- Bu yöntemle erken dönem başarı şansı yüksek olmakla birlikte uzun dönemde tekrarlayan enjeksiyonlar gerekmektedir.

Magnetic anal sphincter (MAS) implantation

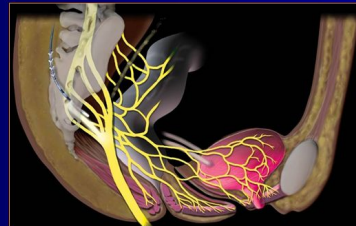


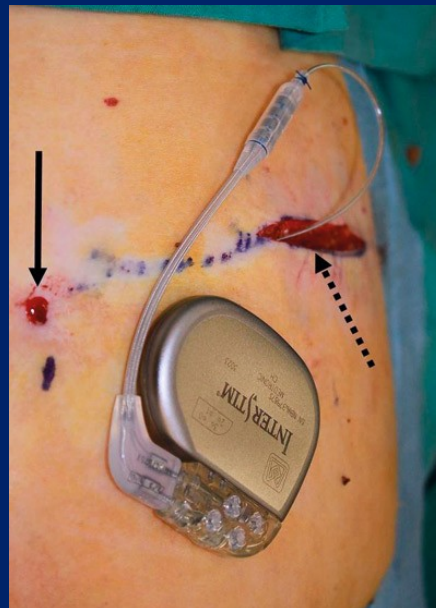
Sakral sinir stimülasyonu



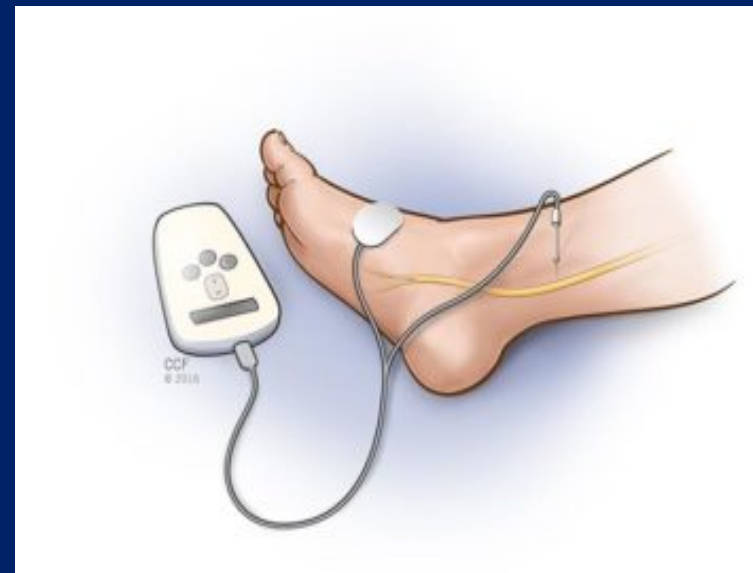
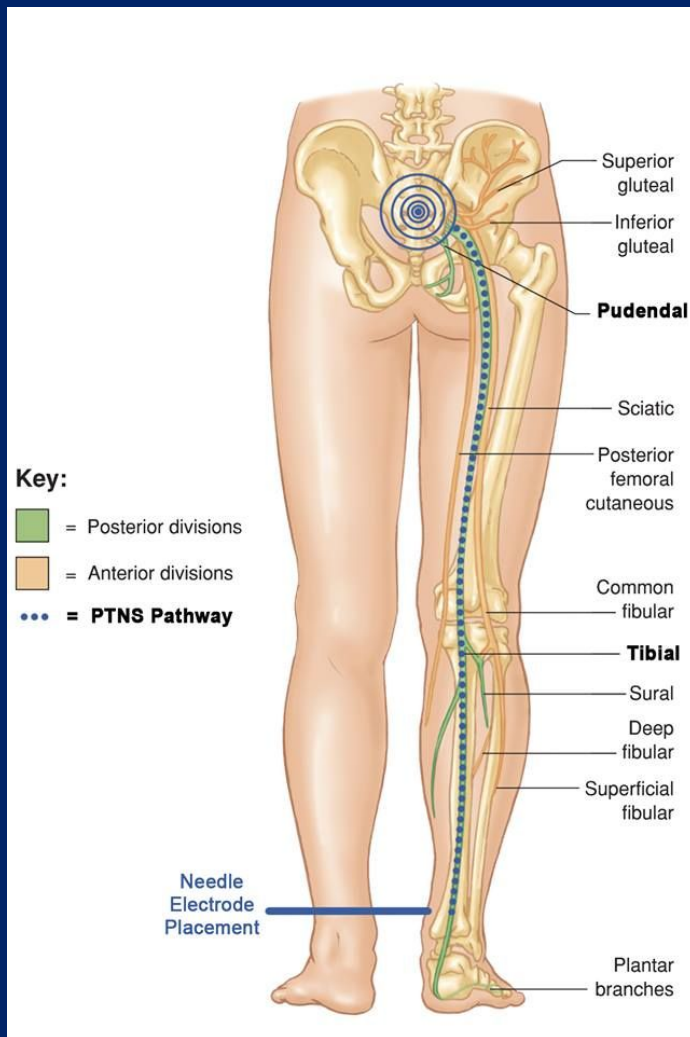
SNS - Therapy

SNS utilizes mild electrical pulses to simulate the nerves associated with voiding function. Neurostimulation may significantly improve normal voiding function.



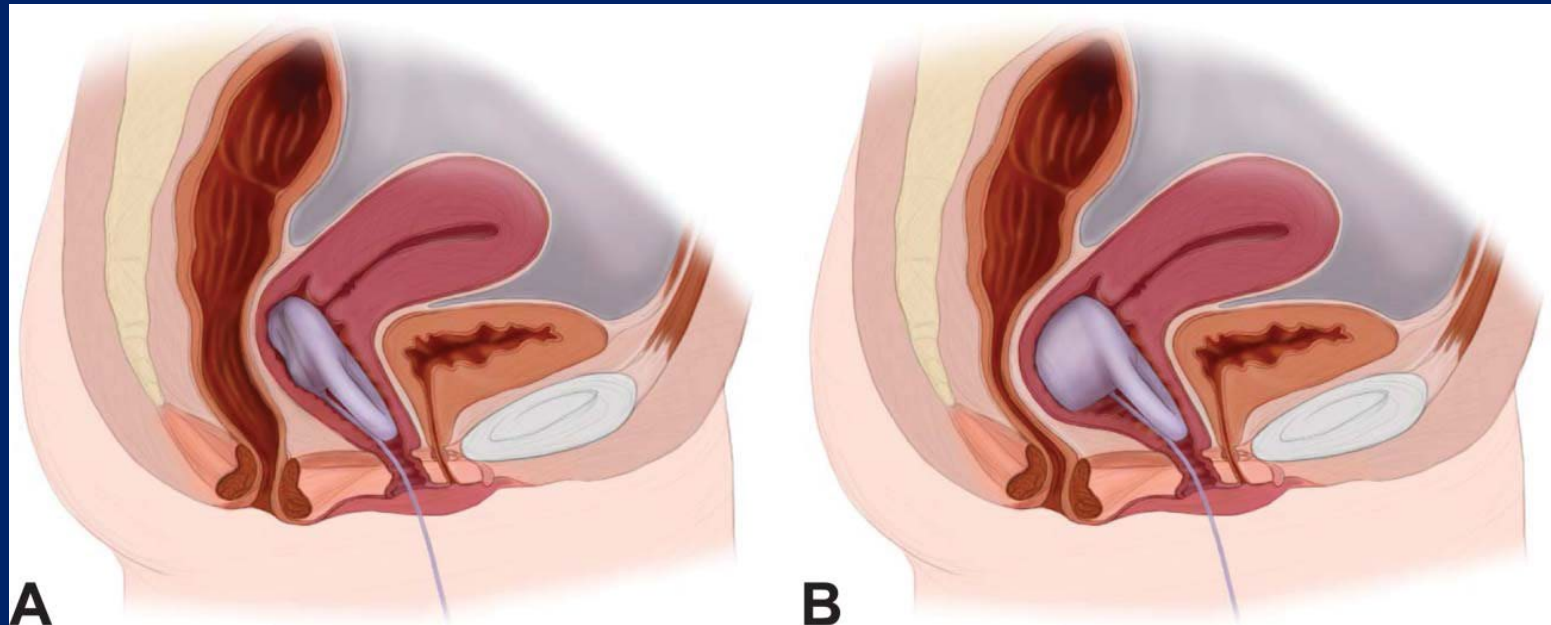


transcutaneous tibial nerve stimulation (TENS)



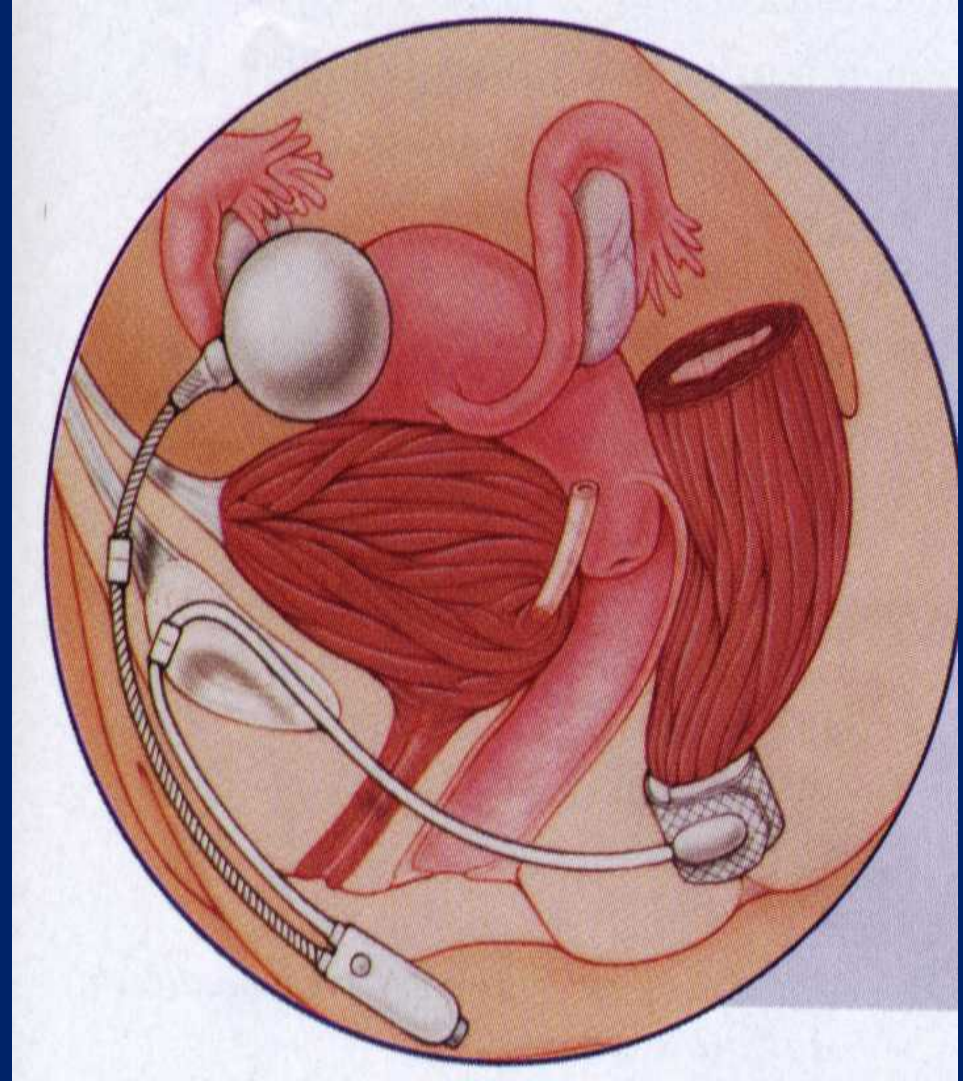
A Vaginal Bowel-Control System for the Treatment of Fecal Incontinence

- Intravaginal Device for Fecal Incontinence

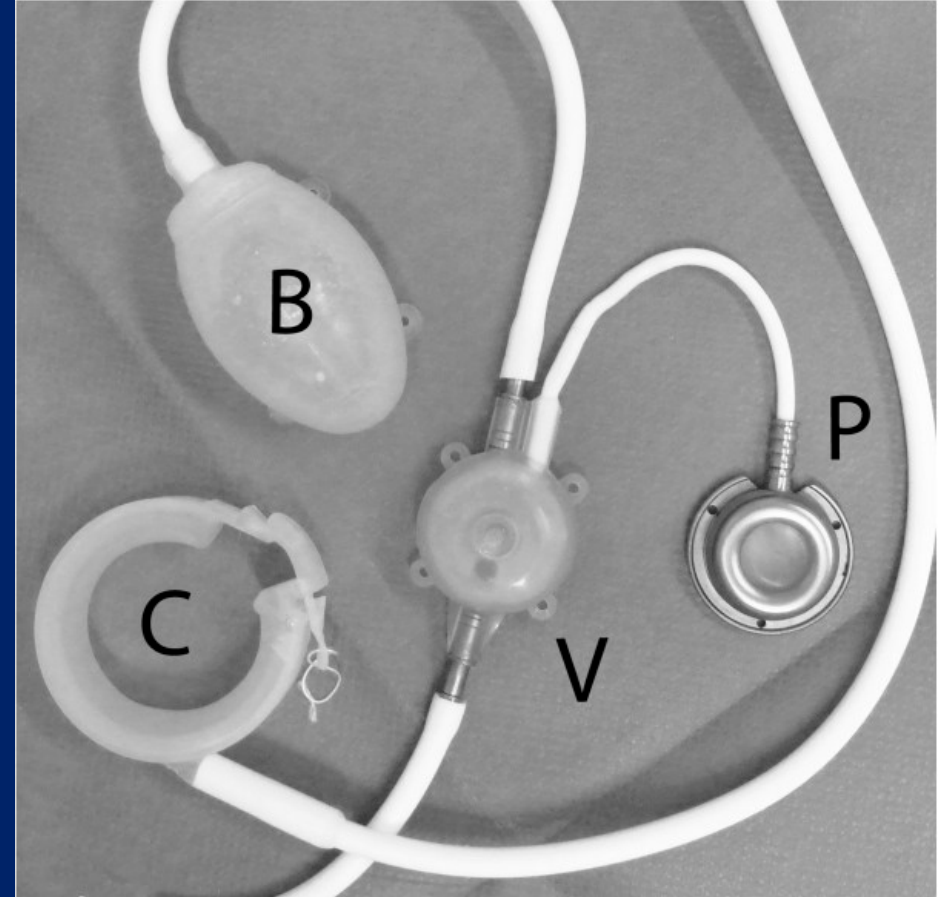


Yapay barsak sfinkteri

- Sfinkter tamiri mümkün olmayan son dönem kalıcı fekal inkontinans tedavisi için alternatif bir tedavi seçeneğidir.
- Hidrolik bir kaf anal kanal etrafına implante edilir.



- Pubis üstü kesiyle yerleřtirilen basınç pompası ve izotonik sıvı rezervuarı, hidrolik kaf ile ilişkilendirilir.
- Sıvı rezervuarının kontrol mekanizması erkekte skrotum, kadında labiuma yerleřtirilir.
- Sistem aktive olduėunda rezervuardaki hidrolik basınç kafı doldurarak kontinansı sağlar.
- Defekasyon sırasında kontrol mekanizması hasta tarafından aktive edilerek sfinkter söndürölür ve boşaltıma izin verilir.



Teşekkürler