



#### 42° CONGRESSO NAZIONALE ACOI 12 - 15 MAGGIO I STAZIONE MARITTIMA

PRESIDENTI:
CARLO MOLINO
TOMMASO PELLEGRINO

### CHIRURGIA PROCTOLOGICA E DEL PAVIMENTO PELVICO FOCUS ON:TECHNIQUES AND TECHNOLOGIES NEL TRATTAMENTO DELLE FISTOLE

#### DR MASSIMILIANO VARRIALE

**UOC CHIRURGIA GENERALE E D'URGENZA** 

DIRETTORE: DR MARCO CATARCI

P.O. SANDRO PERTINI-ASL ROMA 2

**ROMA** 

- Identificazione anatomica della fistola;
- Recidiva malattia;

 Drenaggio e semplificazione del tramite;

Chiusura ostio

endoanale.

- Comfort post operatorio;
- tramite;
  - Ripresa attività sociali.

- Ridotti accessi ambulatoriali per controllo post op.;
- Fistole laterali;
- No danno sfinteriale;
- Integrazione stile vita ed igiene alimentare.

- Chiusura ostio endoanale in corso di drenaggio ascesso;
- Setone lasso si o no;
- Minimalizzare diametro ostio endoanale;

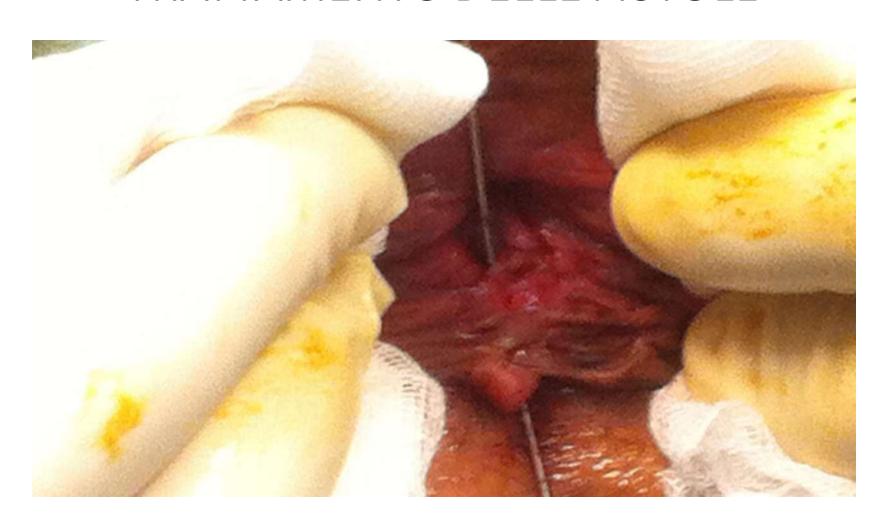
29/04/24, 12:03	Surgery of Simple and Complex Anal Fistulae in Adults: A Review of the Literature for Optimal Surgical Outcomes - PubM
An official webs	know.
FULL TEXT LINKS	
Review C	Eureus, 2023 Mar 8;15(3):e35888. doi: 10.7759/cureus.35888. eCollection 2023 Mar.
	of Simple and Complex Anal Fistulae in
	A Review of the Literature for Optimal
Surgical	Outcomes
Anestis Charalai Konstantinos N	mpopoulos <sup>1</sup> , Dimitrios Papakonstantinou <sup>1</sup> , George Bagias <sup>1</sup> , astos <sup>1</sup> , Markos Perdikaris <sup>1</sup> , Savvas Papagrigoriadis <sup>2</sup>
Affiliations PMID: 36911578	B PMCID: PMC9993441 DOI: 10.7759/cureus.35888

without significant postoperative complications. In complex anal fistulas, only sphincter-saving techniques should be used; the optimal outcomes are obtained by the ligation of the intersphincteric fistulous tract (LIFT) and rectal advancement flaps. Those techniques assure high healing rates of 60-90%. The novel technique of the transanal opening of the intersphincteric space (TROPIS) is under evaluation. The novel sphincter-saving techniques of fistula laser closure (FiLac) and video-assisted anal fistula treatment (VAAFT) are safe, with reported healing rates ranging from 65% to 90%.

Surgeons should be familiar with all sphincter-saving techniques in order to face the variability of the fistulas-in-ano. Currently, there is no universally superior technique that can treat all fistulas.

#### Fistola Sottomucosa

- Fistulotomia su ansa diatermica;
- Livello raccomandazione 1B;
- Non incontinenza;
- Elevato successo.





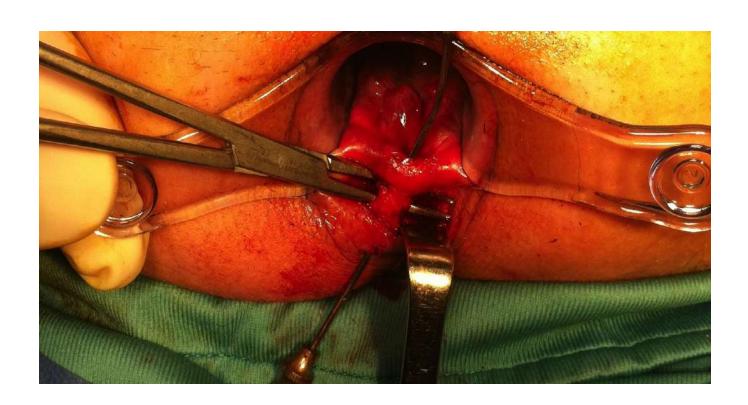
L.I.F.T.

- Rojanasakul 2007, success rate=94,4%;
- Scomposizione della fistola con legatura del tratto intersfinterico e chiusura diretta ostio endoanale;
- 76,5% mean success rate;
- 0% incontinence, 5,5% complication rate;

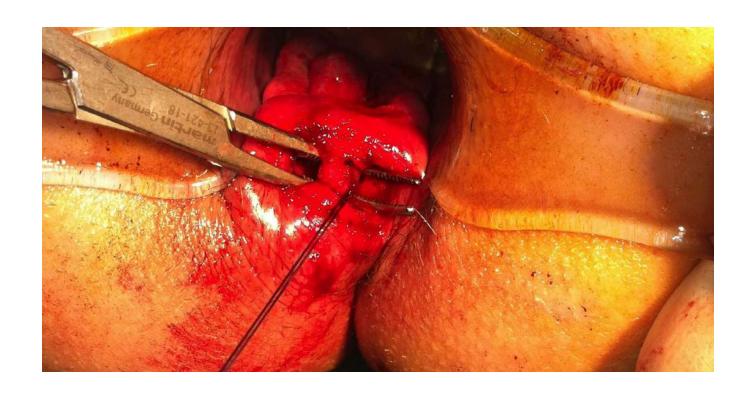
Hong: L.I.F.T to treat anal fistula; a systematic revue and meta-analysis. Tech Coloproct 2014; 18

- 50 100 % overall mean success (Mushaya Am J Surg 2012);
- Perfetta conoscenza e dimestichezza chirurgica del piano sfinteriale;
- Breve ospedalizzazione e basso costo;
- Possibilità di associazione a bioprotesi (Bio-L.I.F.T.).

L.I.F.T.



L.I.F.T.



L.I.F.T.



L.I.F.T.

Healing: 60-90 %;

**Overall Healing: 98%** 

Recurrence: 17-32%

Casistica personale: 145 paz (2009-2024);

Healing: 123 pazienti (77,9%)

Recurrence: 22 pazienti (22,1%);

reLIFT: Healing: 19/22 pazienti (86,3%);

Overall: 97,9%

#### L.I.F.T.

Ligation of Intersphincteric Fistulous Tract vs Endorectal Advancement Flap for High-Type Fistula in Ano: A Randomized Controlled Trial

Pankaj Kumar <sup>1</sup>, Siddhant Sarthak, Pradeep K Singh, Tushar S Mishra, Prakash K Sasmal

J Am Coll Surg . 2023 Jan 1;236(1):27-35. doi: 10.1097/XCS.0000000000000441. Epub 2022 Dec 15.

- **Results**: healing rate in the LIFT arm was better than that in the endorectal advancement flap arm (76.2.% vs 54.7%, p = 0.039).
- Conclusions: The shorter operative duration, better quality of life at 6 months, and higher healing rate make LIFT a superior treatment option for high fistula in ano.
   However, studies with a large sample size will be needed to verify these results.

#### L.I.F.T.

Endorectal advancement flap compared to ligation of inter-sphincteric fistula tract in the treatment of complex anal fistulas: A meta-analysis of randomized clinical trials Sameh Hany Emile 1, Zoe Garoufalia 2, Pauline Aeschbacher 3, Nir Horesh 4, Rachel Gefen 5, Steven D Wexner 6

Surgery . 2023 Aug;174(2):172-179. doi: 10.1016/j.surg.2023.04.004. Epub 2023 May 15.

**Conclusion:** Ligation of intersphincteric fistula tract and advancement flap had similar odds of healing, recurrence, and complications. The odds of fecal incontinence and extent of pain after ligation of intersphincteric fistula tract were lower than after advancement flap.

TR.OP.I.S.

29/04/24, 12:02

Transanal Opening of Intersphincteric Space for Fistula-in-Ano - PubMed

An efficial website of the United States government

Sage Journals

Am Surg. 2022 Jun;88(6):1131-1136. doi: 10.1177/0003134821989048. Epub 2021 Jan 30.

### Transanal Opening of Intersphincteric Space for Fistula-in-Ano

Yu-Bo Li <sup>1</sup>, Ju-Hua Chen <sup>2</sup>, Meng-di Wang <sup>1</sup>, Jun Fu <sup>1</sup>, Bing-Chuan Zhou <sup>1</sup>, De-Gang Li <sup>1</sup>, Hai-Qing Zeng <sup>1</sup>, Li-Ming Pang <sup>3</sup>
Affiliations
PMID: 33517706 DOI: 10.1177/0003134821989048

Results: The TROPIS procedure was performed on 41 patients with fistula-in-ano with a follow-up time of 6-23 months. The characteristics of the patients were as follows: 36 males, 6 females, mean age 38.6 $\pm$ 13.2 years, and mean BMI 23.5 $\pm$ 3.9 kg·m<sup>-2</sup>. All patients (41) had transsphincteric fistulae, and 90.2% (37) had high fistula. Of the 41 patients, 22% (9) had recurrent fistulae, 29.27% (12) had horseshoe fistulae, 7.3% (3) had supralevator fistulae, and 14.6% (6) had an associated abscess. The fistula healed completely in 85.3% (35) of patients and failed to heal in 14.7% (6) of patients, and the healing of high fistula was 86.5% (32). Of those patients who had not healed completely, 2 were found to have contracted iatrogenic infections due to foreign residues and underwent surgery with the passing of a loose seton. The additional 4 patients who had not healed underwent a fistulotomy and healed completely thereafter. There were no significant changes in incontinence scores. The incontinence scores were .15  $\pm$  .36 preoperatively and .22  $\pm$  .47 3 months postoperatively (t = -1.438, P = .16).

**Conclusions:** The TROPIS technique is a novel sphincter-preserving procedure, which can be effectively used in treating fistula-in-ano.

Fi.La.C.

- TECNICA CHIRURGICA GIOVANE( Wilhelm Tech. Colopr. 2011 );
- CHIUSURA DIRETTA DEL TRAMITE FISTOLOSO, DELL'OSTIO ENDOANALE E PRESERVANTE LO SFINTERE;
- UTILIZZO LASER DIODO;
- PROGRESSIVO RESTRINGIMENTO FINO ALLA CHIUSURA DELLA FISTOLA MEDIANTE EMISSIONE RADIALE DI ENERGIA LASER;
- CONFORT POST OPERATORIO;
- REFILAC.

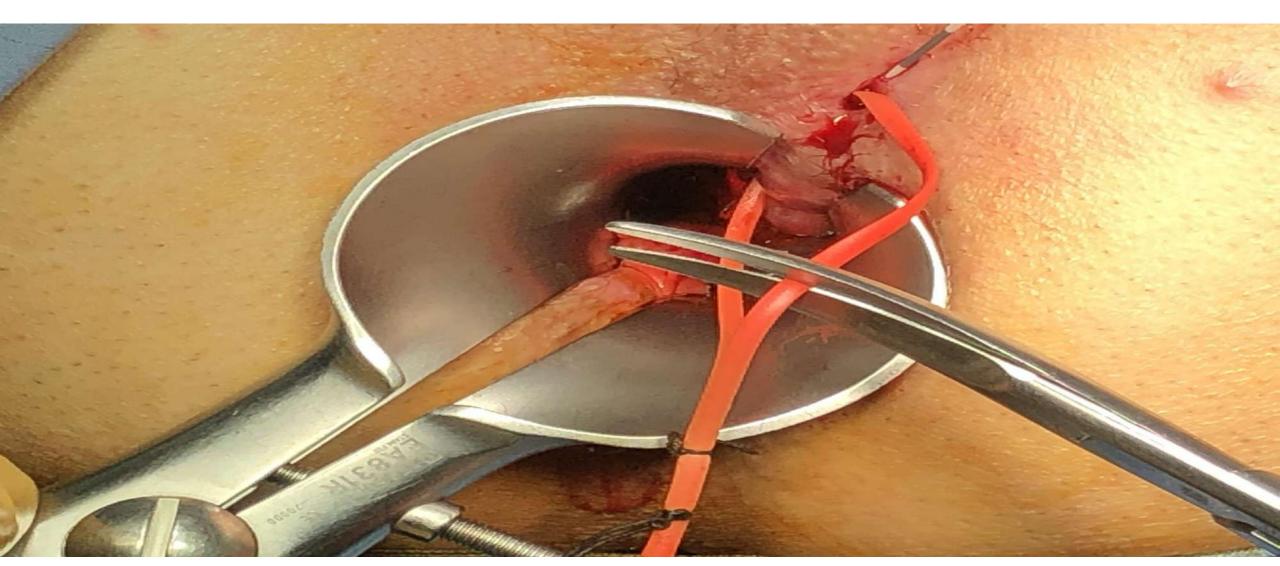
#### FI.LA.C.

- SECONDO TEMPO DA PREDILIGERE;
- E.A.U.S. Flex Focus 400 BK Medicale CON SONDA RADIALE 2050;
- SE LOOSE SETON, ALMENO DOPO 4 SETTIMANE;
- COURRETTAGE TRAMITE;
- CHIUSURA DIRETTA OSTIO ENDOANALE;



#### **FILAC**

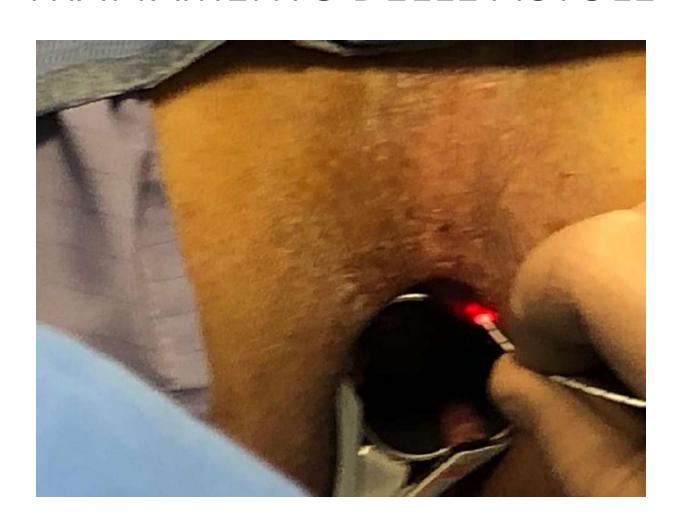
- Piattaforma laser a diodo con emissione energia laser 10
   W alla punta e lunghezza d'onda= 1470 nm (NEOV 1470
   UBER ROS);
- Introduzione della sonda laser ad emissione radiante nel tramite fistoloso mediante Seldinger;
- Rilascio energia laser in modo radiante dalla fibra;
- Progressivo restringimento del tramite con retrazione fibra di 1 mm/sec.





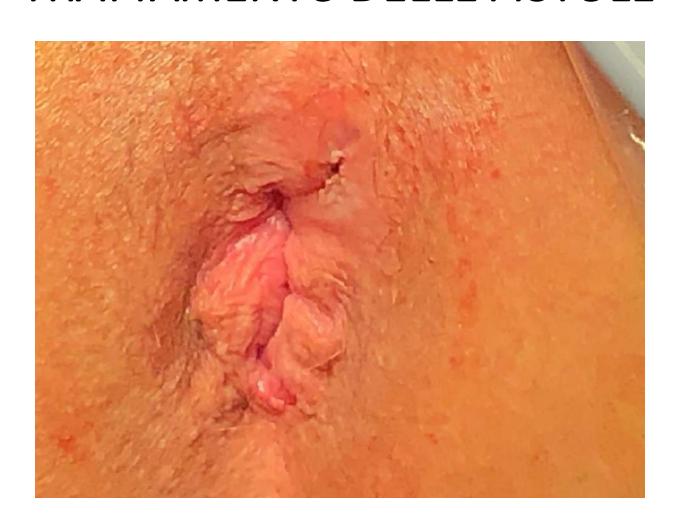














### **FILAC**

• 71% pz chiusura fistola in assenza di sintomi;

(FiLaC: Long term results and new operative strategies. Giamundo P. et al.; Tech. Coloproctol. 2015, 19:449-53)

#### Casistica Personale

- 114 pazienti dal 2014 solo fistole criptoghiandolari;
- Healing a 4 settimane:78,9% (90/114);
- Failure: 21% ( 24/114) 3 drop out ;
- Refilac: 21/24 → healing: 76,19% (16/21); failure: 23,8% (5/21)

Treatment of anal fistula with FiLac®: results of a 10-year experience with 175 patients

An official website of the United States government

FULL TEXT LINKS

SpringerLink

Tech Coloproctol. 2021 Aug;25(8):941-948. doi: 10.1007/s10151-021-02461-4. Epub 2021 May 19.

Treatment of anal fistula with FiLac®: results of a 10-year experience with 175 patients

P Giamundo 1, M De Angelis 2

Affiliations

P MID: 34013497 DOI: 10.1007/s10151-021-02461-4

Results: Out of a total of 180 patients, 5 had been lost to follow-up. 175 patients [m:f: 115:60; median age 49 years (range18-81 years)] with cryptoglandular fistulas treated with FiLaC® were included in the study. Fistulas were transphincteric in 152 (86.8%) cases, intersphincteric in 18 (10.3%), and suprasphincteric in 5 (2.9%). A seton or draining silicon loop was placed in 142 (81.8%) patients at a median of 14 weeks (range10-28 weeks) prior to FiLaC®. At median follow-up of 60 months (range 9-120 months), the overall primary healing rate was 66.8% (117/175). Thirty-eight patients (21.7%) failed to heal. Twenty out of 175 (11.4%) patients had recurrence at median follow-up of 18 months (range 9-50 months). Patients in whom a seton/loop was inserted for drainage at the first-stage procedure had a statistically significant higher rate of success (100/142, 70.4% vs. 17/33, 51.5%, respectively; p 0.0377; odds ratio 0.45). Forty-eight patients were reoperated on at a median of 15 months (range 12-20 months) after laser treatment. Twenty-six underwent redo laser closure with FiLaC®, and 12 of them healed (46%), for a secondary success rate of 73.7%.

**Conclusions:** Longer follow-up confirms the efficacy of FiLaC in the treatment of complex anal fistulas. Its use and implementation should be encouraged.

Sphincter-saving therapy for fistula-in-ano: long-term follow-up after FiLaC®-lere's how you know

FULL TEXT LINKS

SphingerLink

Tech Coloproctol, 2021 Feb;25(2):177-184, doi: 10.1007/s10151-020-02332-4. Epub 2020 Aug 31.

Sphincter-saving therapy for fistula-in-ano: long-term follow-up after FiLaC®

A Wolicki <sup>1</sup>, P Jäger <sup>2</sup>, T Deska <sup>2</sup>, M Senkal <sup>2</sup>

Affiliations
PMID: 32865716 DOI: 10.1007/s10151-020-02332-4

The primary healing rate was 74.7% (62 of 83 patients) overall. Eleven (13.3%) of the 21 patients (25.3%) who failed FiLaC® -therapy underwent a second operation. In eight cases, Re-FiLaC® and in three cases, fistulectomy with closure of the internal orifice was performed. Afterwards 6 (54.5%) of these 11 patients could be considered cured: 3 who had fistulectomy and three who had Re-FiLaC® treatment. The overall healing rate after second FiLaC® was 78.3% (65 of 83 patients) while the overall healing rate for FiLaC® therapy combined with any second procedure was 81.9% (68 of 83 patients). The follow-up period in this group of 11 patients who received re-operation was 38 months (range 13-84 months). Changes in continence occurred in eight patients (9.6%). No patient reported major incontinence postoperatively.

Techniques in Coloproctology (2021) 25:977–979 https://doi.org/10.1007/s10151-021-02411-0

THE LAST IMAGE

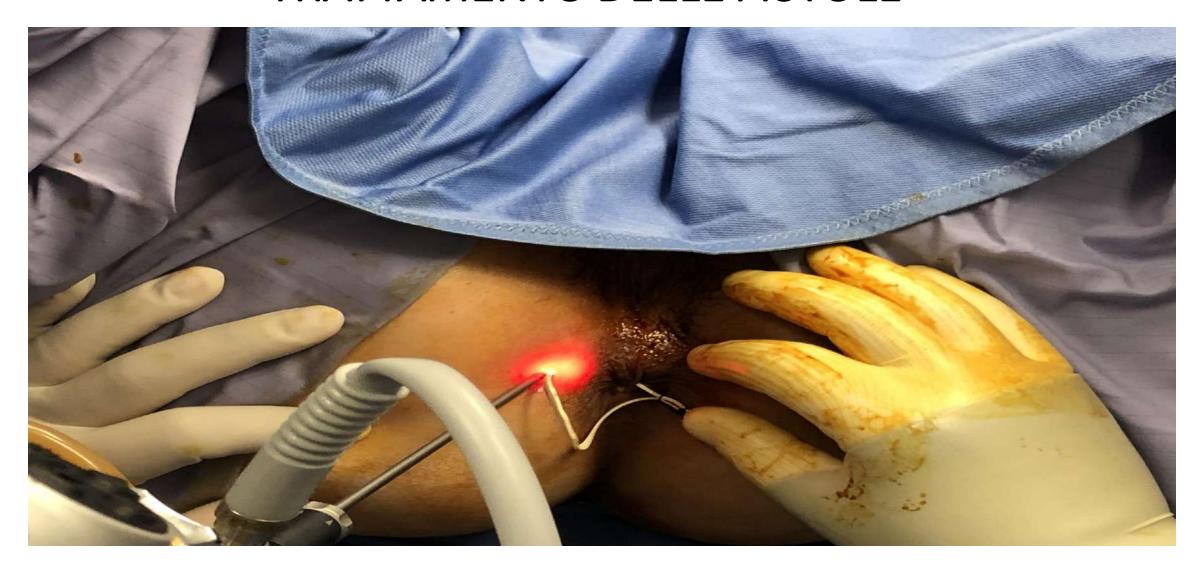


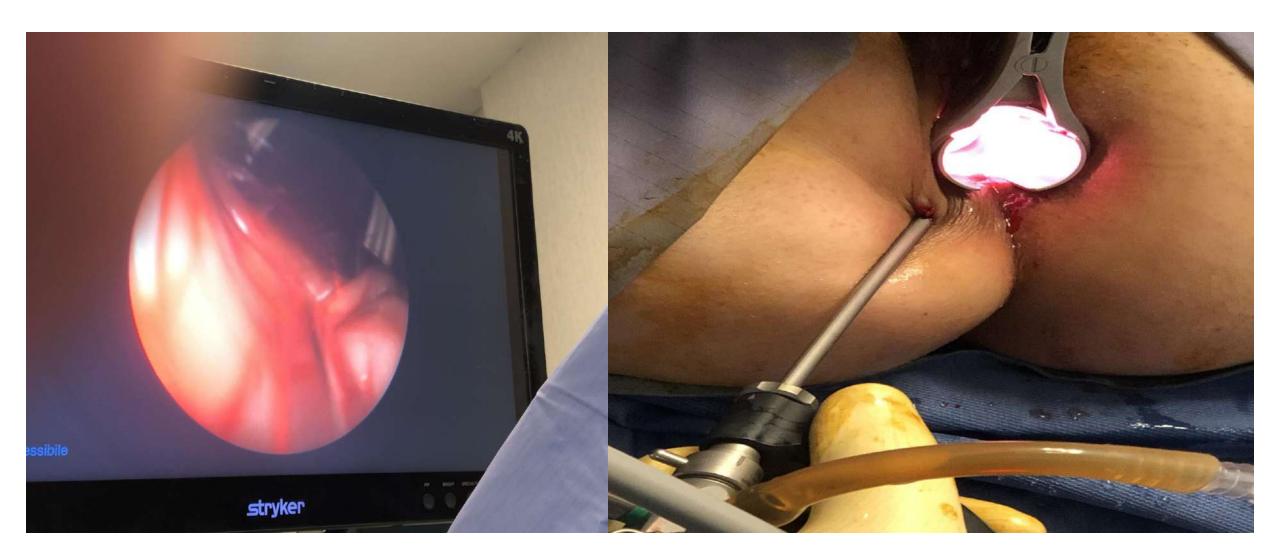
VAAFT plus FiLaC™: a combined procedure for complex anal fistula

Y.-B. Yao<sup>1</sup> · C.-F. Xiao<sup>1</sup> · Q.-T. Wang<sup>1</sup> · H. Zhou<sup>1</sup> · Q.-J. Dong<sup>1</sup> · Y.-Q. Cao<sup>1</sup> · C. Wang<sup>1</sup>

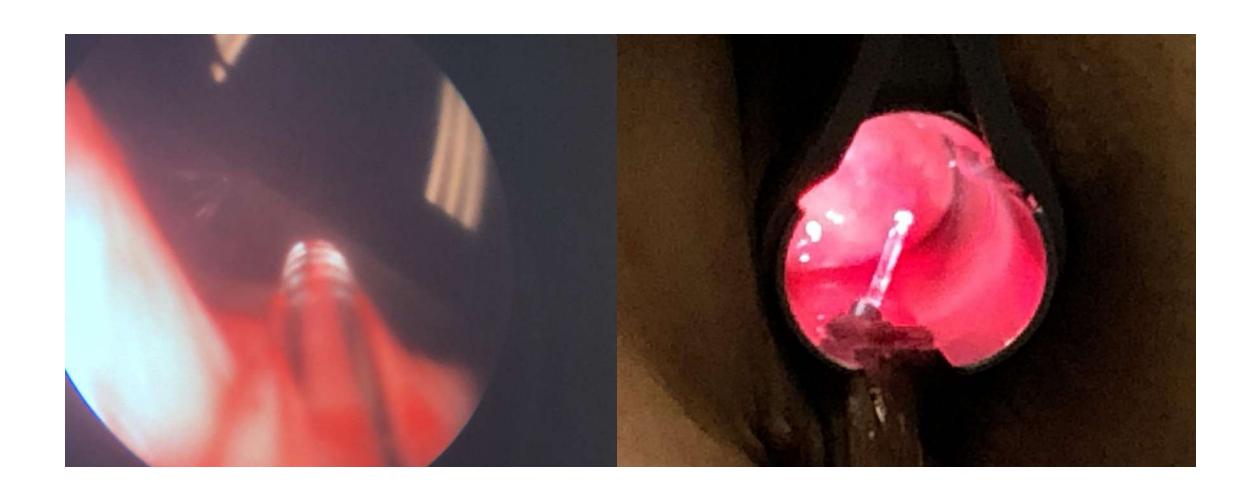
Received: 5 December 2020 / Accepted: 5 January 2021 / Published online: 21 January 2021 © The Author(s) 2021

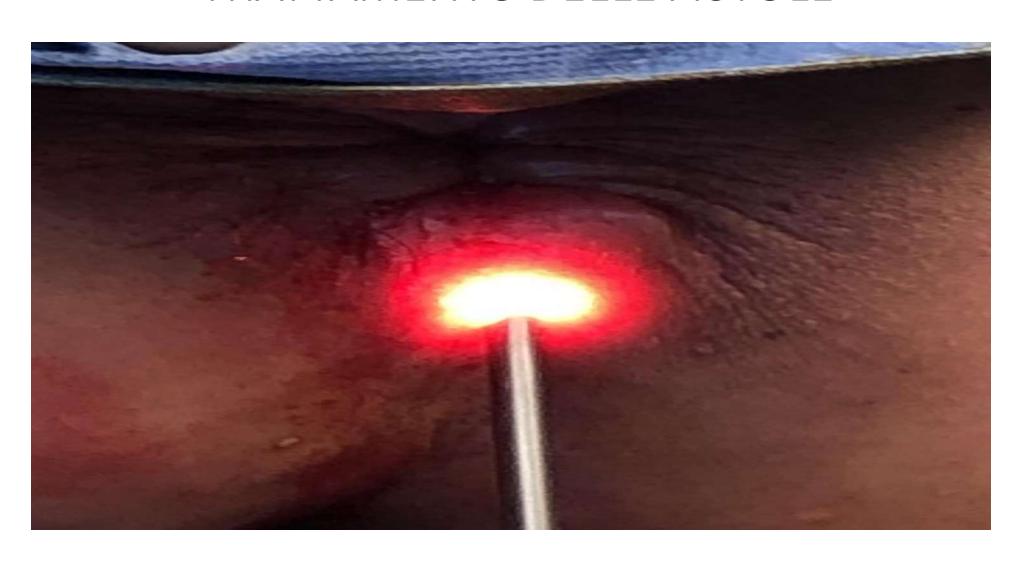












#### VAAFT + FILAC

- 10 CASI DI FISTOLE COMPLESSE A FERRO DI CAVALLO RECIDIVE NON MICI CON HEALING: 100%
- TECNICHE CHE SI COMPLETANO, ELEVATO TASSO DI HEALING;
- TECNOLOGIA NON SEMPRE DISPONIBILE
- COSTI ELEVATI.

29/04/24, 12:05	Video-Assisted Anal Fistula Treatment (VAAFT) in Cryptoglandular fistula-in-ano: A systematic review and proportional meta-an
An official websit	te of the United States government
FULL TEXT LINKS	
DEEN ACCESS	
Review In	nt J Surg. 2017 Oct:46:85-91. doi: 10.1016/j.ijsu.2017.08.582. Epub 2017 Sep 4.
Video-A	ssisted Anal Fistula Treatment (VAAFT) in
	andular fistula-in-ano: A systematic review
	ortional meta-analysis
Pankaj Garg <sup>1</sup> , P	ratiksha Singh <sup>2</sup>
Affiliations	
PMID: 28882770	DOI: 10.1016/j.ijsu.2017.08.582

**Results:** A total of 1378 studies were screened. Out of these, eight studies were finally included for meta-analysis. The analysis (n = 786) demonstrated a net Proportion Meta-analysis pooled rate of 76.01% (95% CI = 68.1 to 83.9) for success rate, 16.2% (95% CI = 12.1 to 20.2) for complications, 44.7 min (95% CI = 38.3 to 51.2) for operating time, 1-4.1 days for mean hospital stay and 1-11 days for return to work. None of the studies reported worsening of continence levels.

**Conclusions:** VAAFT is a safe videoendoscopic method to treat fistula-in-ano with an overall success rate of 76% (net Proportion Meta-analysis pooled rate). The main benefit of the procedure is minimal risk to incontinence, minimal hospital stay and early return to work.

Long term results of video-assisted anal fistula treatment for complex anal fistula: another shattered dream?

FULL TEXT LINKS

WILEY FULL Text

Colorectal Dis. 2023 Oct;25(10):2017-2023. doi: 10.1111/codi.16732. Epub 2023 Sep 1.

Long term results of video—assisted anal fistula treatment for complex anal fistula: another shattered dream?

Marco La Torre 1, Marta Goglia 2, Alessandro Micarelli 3 4, Enrico Fiori 5, Vito D'Andrea 6, Ugo Grossi 7 8, Simone Maria Tierno 1, Federico Tomassini 1, Gaetano Gallo 1

Affiliations

PMID: 37658596 DOI: 10.1111/codi.16732

**Results:** Overall, 106 patients (70% male; mean age 41 years) were reviewed. Of these 86% had a previous seton placement. Fistulas were either high trans-sphincteric (74%), suprasphincteric (12%) or extrasphincteric (13%). Eight (7%) patients experienced postoperative complications, none of which required reintervention. Mean follow-up was 53 ± 13.2 months. VAAFT failed in 14 (13%) patients. The overall recurrence rate ranged from 29% at 1 year to 63% at 5 years. Multiple external orifices, suprasphincteric fistula, younger age, previous surgery and higher complexity of the fistulous tract were independent risk factors for recurrence.

Conclusion: VAAFT is a safe sphincter-sparing technique. The initially high success rate decreases over time and relates to a higher degree of complexity.



#### Fistura<sub>®</sub>

A new radiofrequency procedure for the treatment of anal fistulas

Fistura\* is a minimally invasive technique that seals the fistula tract without having to open the anal sphincter.

The procedure is based on the method of thermocoagulation – utilising the emission of electromagnetic waves at a high frequency (4MHz). The technique is safe, efficient and does not damage surrounding tissue.

This new treatment for anal fistulas is performed in a day-case or outpatient setting. The procedure takes only a few minutes to fulfil with minimal discomfort for the patient, allowing an immediate return to daily activities.



lonic agitation

Dehydration of the tissue

Denaturation of proteins

Coagulation by thermal destruction







Original Article | 🙃 Free Access

Sphincter-sparing surgery for complex anal fistulas: radiofrequency thermocoagulation of the tract is of no help

A. Merlini l'Héritier, L. Siproudhis , G. Bessi, E. Le Balc'h, T. Wallenhorst, G. Bouguen, C. Brochard

First published: 21 March 2019 | https://doi.org/10.1111/codi.14618 | Citations: 5



ORIGINAL ARTICLE

### Prospective and multicentre study of radiofrequency treatment in anal fistula

Marie Sautereau, Dominique Bouchard, Charlène Brochard, François Pigot, Laurent Siproudhis, Jean Marie Fayette, Cécile Train, Anne Laurain ... See all authors v

First published: 21 September 2022 | https://doi.org/10.1111/codi.16344

#### Conclusion

Radiofrequency is effective in 34.7% of the cases as an anal fistula treatment in this first prospective study, with low morbidity and no effect on continence. Clinical healing was deep (MRI) in three-quarters at 1 year. The increase in energy power during the procedure seems to be a key point to be analysed to optimise results.



#### CHIRURGIA RIGENERATRICE LIPOGEMS

- NELLA MALATTIA PERIANALE DA MICI CON FISTOLE COMPLESSE, COMPLICATE, RECIDIVE, CON OSTI ENDOANALI SINGOLI E MULTIPLI POSSIBILE IMPIEGO DELLA CHIRURGIA RIGENERATIVA;
- IMPIEGO DELLE CELLULE STAMINALI MESENCHIMALI ADULTE MULTIPOTENTI DETERMINANTI LA RIGENERAZIONE TISSUTALE OTTENUTE DALLA MICROFRAMMENTAZIONE DEL TESSUTO ADIPOSO, ADSC;
- INNESTO AUTOLOGO DI ADSC IN FISTOLA PER LA RIGENERAZIONE DEL TESSUTO FINALIZZATO AD OTTENERE UNA RIDUZIONE DEI TASSI DI INSUCCESSO DI CHIUSURA.

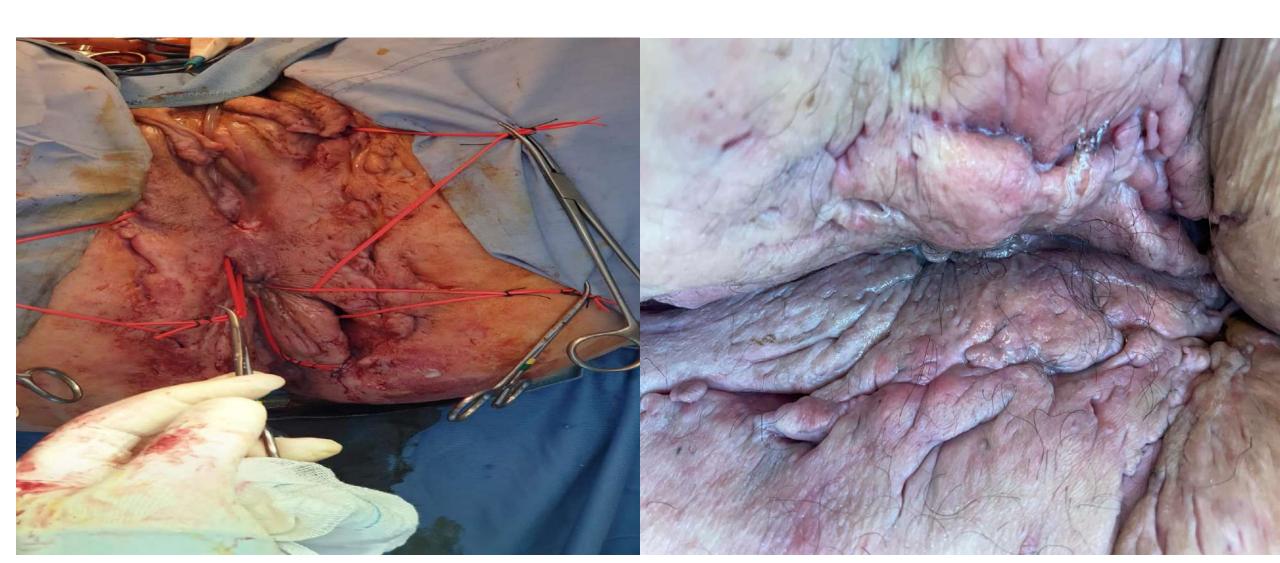


#### **LIPOGEMS**

- MICROFRAMMENTAZIONE DEL TESSUTO ADIPOSO;
- ENZYME FREE;
- NO ESPANSIONE IN COLTURA;
- IN SISTEMA CHIUSO E ASETTICO;
- COMPLETAMENTE IN IMMERSIONE;
- MASSIMA ELIMINAZIONE DEI RESIDUI;
- NICCHIE VASCULO STROMALI INTATTE;
- PERICITI ISOLATI DA NICCHIE VASCULO STROMALI SENZA DISTRUGGERE LA POPOLAZIONE CELLULLARE;
- ELIMINARE OLII E SANGUE SOSTANZE CON PROPRITA' PRO-INFIAMMATORIE;
- OTTENERE UN TESSUTO FACILAMENTE INIETTABILE PER TRASFERIRE LE MSC.









## CHIRURGIA RIGENERATRICE LIPOGEMS CASISTICA PERSONALE

- *TOT. PAZIENTI: 33;*
- FOLLOW UP MEDIO: 56,1 MESI (RANGE: 74-2 MESI);
- HEALING: 75,8% (25/33);
- FAILURE: 24,2%( 8/33 );
- reLIPOGEMS: 85% /(6/7 CON 1 DROP OUT);
- *OVERALL: 93,9%;*
- NESSUNA COMPLICANZA IMMEDIATA O TARDIVA;
- TECNICA PRESERVANTE LO SFINTERE;
- SCARSO O ASSENTE IL DOLORE;
- DIMISSIONE PRECOCE;
- RIPRESA DELLE ATTIVITA' PERSONALI E SOCIALI PRECOCE.



#### FUTURE DIRECTIONS

## Refractory Complex Crohn's Perianal Fistulas: A Role for Autologous Microfragmented Adipose Tissue Injection

Silvio Laureti, MD, PhD,\*Paolo Gionchetti, MD,† Alberta Cappelli, MD,† Laura Vittori, MD,\* Federico Contedini, MD,§ Fernando Rizzello, MD, PhD,† Rita Golfieri, MD,† Massimo Campieri, MD,† and Gilberto Poggioli, MD\*

Background. Complex perianal fistulas represent one of the most challenging manifestations of Crohn's disease. Combined surgical and medical therapy with biologic drugs today represent the first-line treatment option, but its efficacy does not exceed 60%. Recently, new therapeutic approaches, such as the use of mesenchymal stromal cells, have shown promising results. The adipose tissue is an abundant and easy to access source. The effectiveness, safety, and feasibility of local injections of microfragmented adipose tissue in patients with refractory complex fistulizing perianal Crohn's disease (PCD) were evaluated.

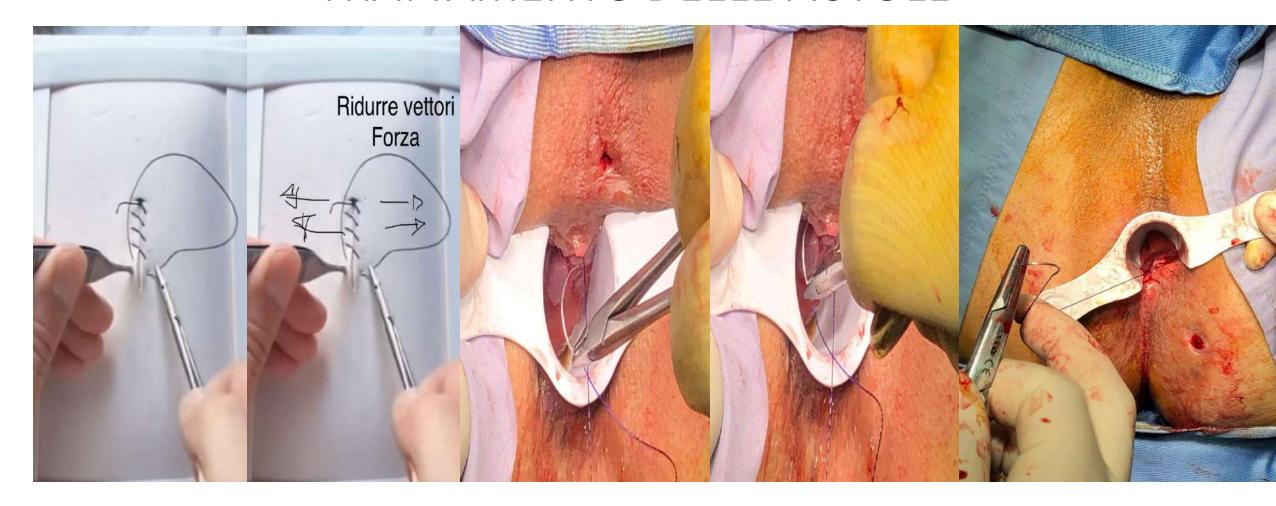
Methods. Fifteen patients with persistent complex fistulizing PCD after biosurgical approach and subsequent surgical "rescue" repair were treated in S. Orsola-Malpighi Hospital with a single-local administration of microfragmented adipose tissue prepared using a minimal manipulation technique (Lipogems) in a closed system. Clinical outcomes were determined at 24-week follow-up assessing success rate, defined as combined clinical and radiological remission.

Results. Upon clinical examination at 24 weeks, 10 patients had combined remission (clinical and radiographic), 4 patients showed improvements, and 1 patient failed. The results were confirmed in all patients by pelvic MRI. No relevant postoperative complications nor adverse events were reported.

Conclusion. These results suggest that the local injection of autologous microfragmented adipose tissue is a safe and promising "rescue therapy" for patients with multiresistant complex fistulizing PCD. This approach might be proposed as routine because it is affordable, is minimally invasive, has no risk of sphincteric damage, and can be carried out in a day-surgery setting.

Key Words: perianal Crohn's disease, complex anal fistulas, microfragmented adipose tissue, mesenchymal stromal cells, regenerative medicine.

INTRODUCTION



#### **CONCLUSIONI**

- OLTRE LA TECNOLOGIA E' FONDAMENTALE IL PENSIERO ED IL RAGIONAMENTO DEL CHIRURGO PER MIGLIORARE IL RISULTATO ULTERIORMENTE;
- RENDERE PERFORMANTE AL MASSIMO LA CHIUSURA OSTIO ENDOANALE ATTRAVERSO NUOVE TIPOLOGIE DI SUTURA DIRETTA CON MATERIALI A MAGGIOR TENUTA;
- IPERTONO SFINTERIALE NEMICO DA TEMERE;
- POSSIBILE IMPIEGO TOSSINA BOTULINICA PER RIDURRE TENSIONE PRESSORIA ENDOANALE.



