Symptomatic pile tailored procedure. A new perspective for hemorrhoidal disease treatment



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Symptomatic pile tailored procedure. A new perspective for hemorrhoidal disease treatment

AIM: Aim of the present paper was to evaluate the role of tailored different single pile treatment in the clinical outcome of hemorrhoids.

MATERIAL OF STUDY: The surgical strategy considered to treat only pathological piles with different procedure according to each pathological Goligher's degree, presence of fibrous, inelastic redundant internal pile(F) and presence of external pathological pile (external pile congestion or subversion of dental line (E) and skin tag not tolerated from the patient (S)).

We treated with Hemorrhoidopexy second and third degree pile without F or ES; with Hemorrhoidopexy and excision of external component every second and third degree pile with E or S and with complete semi-closed pile excision all third degree with F and IV degree piles. The number of post operative days of self administered analgesics was the primary end point and short/long term post operative complications, hospital stay, re-admission and recurrence were secondary end points.

RESULTS: 157 patients were treated. No differences were noted in term of time of discharge between hemorrhoidopexy and complete or external excision. The painkiller assumption increases with the number of treated pile (r= 0.227, p=0.006). We observed 10.2% early complications (48h) all secondary to urinary retention and 7% late complications (2-15days) within only one reoperation for bleeding. After mean follow up of 16 months no patients required further treatments for hemorrhoids.

DISCUSSIONS: A tailored approach showed to be effective in terms of short and long term complications and moreover to relapse.

CONCLUSIONS: Single pile tailored treatment showed good results.

KEY WORDS: Excision, Hemorrhoids, Hemorrhoidectomy, Hemorrhoidopexy, Pain, Tailored

Introduction

Many surgical procedures are performed to treat hemorrhoids. Someone of these are excisional and other are conservative of the piles. In 1888, Fredrick Salmon defined the surgical technique which is a combination of excision and ligation for hemorrhoids ^{1,2}.

However, the conventional hemorrhoidectomy (open or closed) has significant morbidity and long recovery times

³. Circular stapled hemorrhoidopexy, first described by Longo in 1998, is an alternative to conventional excisional hemorrhoidectomy. Many randomized-controlled trials comparing stapled hemorrhoidopexy with traditional excisional surgery have shown it to be less painful and that it is associated with quicker recovery, with a better patient acceptance and a higher compliance from the patients ^{4,5}. However, stapled hemorrhoidopexy is associated with a higher long-term risk of hemorrhoid recurrence and the symptom of prolapse. It is also likely to be associated with a higher likelihood of long-term symptom recurrence and the need for additional operations compared to conventional excisional hemorrhoid surgeries ⁶, and major severe complications have been described ⁷.

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Since the middle of this century, there was a tendency towards non-operative approaches and techniques that fix the cushions back in position can be performed in outpatients with reasonable success rates ⁸. In United States, nearly 58% of the patients above 18 years of age are estimated to have this disease and one-third of these are exposed to surgical intervention ⁹.

Because of variability of hemorrhoidal disease tailored treatment has been evocated from many authors, but it means to choose a procedure for each patients. However, the tailored treatment can be performed on symptomatic pathological pile choosing the best option for each pile to get the best outcome for the patient.

Aim of the present paper was to evaluate the role of tailored different single pile treatment in the clinical outcome of hemorrhoids.

Materials and Methods

All the consecutive patients treated from September 2010 to December 2012 with a single pile tailored approach were prospectively enrolled in the present study.

The hemorrhoidal disease was classified according to single pile classification (SPC) ¹⁰ and Goligher classification. The surgical strategy considered to treat only pathological piles with different procedure according to each pathological Goligher's degree, presence of fibrous, inelastic redundant internal pile(F) and presence of external pathological pile (external pile congestion or subversion of dental line (E) and skin tag not tolerated from the patient (S)).

Basically we treat with Hemorrhoidopexy second and third degree pile without F or ES; with Hemorrhoidopexy and excision of external component every second and third degree pile with E or S and with complete semi-closed pile excision all third degree with F and IV degree piles. All the patients underwent a complete clinical evaluation complete with medical history, clinical examination, and anoscopy. Those with suggestive signs and symptoms of oncologic disease or fecal incontinence or constipation, were invited to undergo further diagnostic tests such as colonoscopy or specific examinations, and excluded from the present study.

Exclusion criteria was age under 18y-o, acute hemorrhoidal thrombosis, fecal incontinence and previous anorectal intervention. All patients were clinically evaluated both prior to discharge and again after 1 week, 2 weeks and 4 weeks from the procedure. Then all patients were requested to undergo a further clinical evaluation at 1 year from the operation. All the patients were contacted by phone on June 2013.

All the procedures were performed with the patients in the lithotomy position, under spinal anesthesia with the auxiliary of Surgy Mini (THD®, Correggio, Italy) or The Beak diagnostic (Sapimed®, Alessandria, Italy) anoscopes to evaluate and to treat each pile.

The outcome of the surgical procedure was evaluated according to the necessary number of post operative days of self administered analgesics (painkiller days: PKD) as the primary end point: this represents an objective evaluation of the incidence of pain in the patients' everyday life and the limits regarding a complete return to work.

Secondary endpoints were short and long term post operative complications, hospital stay, re-admission and recurrence occurred at the minimum 6 months follow up.

Results

One hundred fifty seven patients were treated, 54 (34,p.4%) women and 103 (65,6%) men with median age 51 (range 21-87), according to single pile tailored treatment.

The results show that there were not differences in time of discharge between hemorrhoidopexy and complete or external excision. 147 (93.3%) patients were discharged within 24h and 10 (6,7%) within 48h.

Non excisional treatment have been performed in 37,6% of cases. The distribution of the patients according to SPC is showed in (Table I).

The painkiller assumption increase with the number of treated pile (r= 0.227, p=0.006) (Table II).

Patients with excision had higher painkiller's consumption (p=0.045). A not significant variation of pkd according to Goligher grade was found (p=0.174). Mean pkd was 4,28, 6,06 and 5,06 for II, III and IV degrees respectively.

We observed 16 (10,2%) early complications (48h) all secondary to urinary retention, 11 (7%) late complications (2-15days) within only one reoperation for bleeding (2 minor bleeding, 3 haemorrhoidal external thrombosis, 2 anal fissure, 3 delayed healing).

Table I - Distribution of the patients according to SPC

	1 PILE	ESF	2 PILES	ESF	3 PILES	ESF	4 PILES	ESF	5 PILES	ESF	6 PILES	ESF
N° pts II	_	_	_	1	2	2	1	1	_	_	_	_
N° pts III	1	3	5	3	41	57	9	8	1	3	_	1
N° pts IV	_	3	_	_	_	12	_	3	_	_	_	
-	7 (6)	9 (4)	114 (71)	22 (12)	4 (3)	1 (1)						

Table II - Pkd distribution according to number of pathological piles (SPC variable N)

Number of Piles	Painkiller Days	Mean pkd
1	2,57	2.9
2	3,22	
3	6,02	6
4	6,28	
5	13,25	12.6
6	10	

We excluded a possible correlation between the incidence of complications and Goligher grade (p=0.221) or the number of piles treated (p=0.319).

After mean follow up of 16 months (6-33) no patients required further treatments for hemorrhoids. Seventeen patients (10.8%) reported further episodes of bleeding, treated with a conservative management or outpatient rubber band ligation (4 patients). Thirteen of the 17 patients underwent a non-excisional treatment at time of first operation.

Discussion

Tailor made sewing a surgical procedure for hemorrhoidal disease on the single pile is possible with good results, however there is the need to classify every single pile pathological status with a common system, probably different from the Goligher classification.

Following this philosophy, every operation means a tailored mix of techniques and it is rarely identifiable with a single technique.

In a recent published paper about hemotrhoidal treatment with Doppler-guided transanal hemotrhoidal dearterialization (THD Doppler) the need of a tailored mucopexy has been considered as mandatory to contain and reduce symptoms ¹¹.

However, even if the Doppler use has been described as useful for the treatment, there is still no adequate scientific evidence that dearterialization is useful rather than haemorrhoidopexy alone ¹².

With specific stapler devices is possible to treat selective pile without perform a circumferential excision and a tailored approach was described both for high volume stapler devices ¹³ and as a selective pathological piles treatment ¹⁴.

Probably if there are more than 4 pathological piles the disease could be considered circumferential, and a stapled resection could be considered with positive outcomes. However, words of caution should be made about patients with 4th degree hemorrhoids with fibrous inelastic prolapse, in which stapler surgery may be not indicated and conditioned by higher rate of recurrence and complications. In our experience stapler surgery finds

indication in patients where the prolapse is the predominant component and should be reserved only for selected cases. In patients where bleeding, thrombosis or other symptoms were prevalent a different surgical approach should be considered (rubber band ligation, hemorrhoidectomy, pexy, ecc).

Excision has been suggested as the most effective treatment for thrombosed external hemorrhoids, while traditional hemorrhoidectomy has still a relevant role for IV degrees or prolapsed internal hemorrhoids ^{15,16}. Moreover it is well known that excisional procedures are safe and effective for the treatment of high-grade hemorrhoids mostly if performed according to a tailored project ¹⁷. Grade I-II-III hemorrhoids in whom conservative treatments fail may be treated with outpatient based procedures as banding ¹⁸ and of non-operative techniques, rubber band ligation produces the lowest rate of recurrence ¹⁹. An increase in the number of pathological piles treated corresponded to an increase in the need of analgesics regardless of the procedure performed ²⁰.

gesics regardless of the procedure performed ²⁰. Excision, ligation, pexy and other technique represents different colors to choose for of an unique painting that represents the best treatment for every patient.

The impact of post operative pain that is actually an important goal of this surgery has been explored through the parameter of painkiller days assumption.

The results obtained underlined that Goligher classification does not express the variability in painkiller days consumption (p>0.05) while SPC considering the variable Number of pathological piles (N), can better predict painkiller days consumption (p<0.05).

The impact of ESF and consequently of excisional procedures have been explored and showed to be not correlate to the increment of pkd (p>0.05) despite an evident trend showed.

A tailored approach as showed to be effective in terms of short and long term complications and moreover to relapse.

III Goligher grade is an heterogeneous group of patient as shown in table 1. This is a possible bias for the studies while SPC allow to select more homogeneous group of patients. According to these findings, as suggested from other authors ¹⁸, a new classification system is actually required, that considers the number of pathological piles, the characteristics of each internal and external pile, as the proposed Single Pile Classification, giving useful clinical information necessary for a true tailored treatment of every pile.

Conclusions

Single pile tailored treatment showed good results but further investigation need to compare different surgical procedure according to single pile classification.

Riassunto

L'obbiettivo di questo studio è di valutare il ruolo della strategia chirurgica su ciascun pile (single pile tailored treatment strategy) nel trattamento della patologia emorroidaria.

Tale strategia chirurgica prevede differenti trattamenti chirurgici in base al grado di Goligher, alla presenza di piles interni fibrosi o anelastici (F), alla presenza di piles esterni patologici (congestione dei piles esterni o eversione della linea dentata) (E) ed alla presenza di marische cutanee non tollerate dal paziente (S). La emorroidopessi è stata utilizzata per pazienti con emorroidi di secondo e terzo grado senza F o E o S, mentre emorroidopessi con escissione delle emorroidi esterne in tutti i secondi e terzi gradi con E ed S. La emorroidectomia sec. Milligan-Morgan in tutti i terzi gradi con F ed in tutti i quarti gradi. L'end-point primario è stato il numero di giorni postoperatori in cui il paziente ha utilizzato analgesici, mentre gli end-points secondari sono state le complicanze a lungo e breve termine, la durata del ricovero ospedaliero, le reammissioni ospedaliere e la recidiva delle emorroidi.

Sono stati trattati 157 pazienti. Nessuna differenza è stata registrata in termini di durata del ricovero tra emorroidopessi ed emorroidectomia. L'assunzione di analgesici è incrementata con il numero di piles emorroidari trattati. Abbiamo osservato il 10,2% di complicanze precoci (48h), tutte secondarie a ritenzioni urinarie ed il 7% di complicanze tardive (2-15days) con solo un reintervento per sanguinamento. Dopo un follow-up medio di 16 mesi nessun paziente ha richiesto trattamenti ulteriori per le emorroidi.

In conclusione, l'approccio single pile tailored treatment strategy è risultato efficace sia a breve che a lungo termine.

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