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FINAL ID: S8

SESSION SYMPOSIUM NAME:

TITLE: RCT to Compare Stapled Hemorrhoidopexy (PPH) Plus Ligation Anopexy (LA) with Stapled Hemorroidepexy (PPH) in Treatment of Grade III and IV Hemorrhoidal Disease

ABSTRACT BODY:

Purpose/Background: Background: The potential benefits of procedure for Procedure for Prolapse and Hemorrhoids (PPH) include shorter operative time, less postoperative pain, less urinary retention, and more rapid return to normal activities. Despite these postoperative advantages, long-term results are insufficient, particularly regarding residual skin tags and recurrent prolapse so in the current study we add ligation anopexy (LA) to PPH technique to assess its value in improving short and long term results in the treatment of grade III-IV hemorrhoids

Methods/Interventions: Methods: Between January 2018 and January 2020 we recruited 124 patients with grade III-IV hemorrhoids . All patients did not previously undergo surgical treatment also fibrotic external irreducible hemorrhoids, thrombosed hemorrhoids, inability to give informed consent, age < 18 years, pregnant women, history of inflammatory bowel disease; history of colon, rectal or anal cancer were excluded. Patients were blindly randomized into two surgical techniques Procedure for Prolapse and Hemorrhoids (PPH) group 62 patients and Procedure for Prolapse and Hemorrhoids (PPH) plus Ligation anopexy (LA) 62 patients. Effectiveness of hemorrhoidal symptoms control were recorded (hemorrhoids symptoms score), operating time, need for analgesia, postoperative pain, time to return to work, postoperative complications, patient satisfaction and recurrence of symptoms. From the time of recruitment, for a period of at least two years follow up the patients evaluated for recurrence of symptoms.

Results/Outcomes: Results: Postoperative pain at rest and during defecation, need for analgesia was less after PPH compared to PPH + LA but not statistically significant. Mean operative time was shorter for PPH compared to PPH + LA (35 min; range, 25-45 vs 50 min; range, 40 - 65 min; $p < 0.001$). Postoperative complications rate, use of laxatives, patient satisfaction, hemorrhoids symptoms score, return to work, and quality of life at 1 month after surgery were similar between groups. After a mean follow-up of 36 months (24-47), After PPH, 10 patients (16.12 %) complained of recurrent external swelling and/or prolapse compared to 3 patients (4.84 %) after PPH + LA ($P = 0.0368$) requiring redo surgery in five of them, after 12, 16, 19, 20 and 24 months. No redo-surgery was required after PPH + LA. Long term patient satisfaction after PPH + LA was better than after PPH.

Conclusions/Discussion: Conclusions: PPH alone has shorter operative time compared to PPH + LA. Both techniques were similar at 1 month after surgery as regard complications rate, use of laxatives, patient satisfaction, hemorrhoids symptoms score, return to work, and quality of life. Long term results were significantly better as regard recurrence of external swelling and/or prolapse and Long term patient satisfaction in PPH + LA group in the treatment of grade III-IV hemorrhoids

(no table selected)



IMAGE CAPTION:

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FINAL ID: S9

SESSION SYMPOSIUM NAME:

TITLE: Impact of Internal Anal Sphincter Division on the Continence Disturbance in Female Patient

ABSTRACT BODY:

Purpose/Background: A percentage of patients showing postoperative incontinence disturbance following internal of anal sphincter(IAS) division remain unclear. So, the aim was to assess the incidence of fecal incontinence(FI) in patients previously submitted to IAS division to treat anal fissure and intersphincteric anal fistula and correlate the severity of symptoms with the percentage of divided muscle, anatomical measurements and anal pressures in both disorders.

Methods/Interventions: This prospective cohort study included female patients distributed in two groups according with the surgical technique used:G1=fistulotomy; and GII=sphincterotomy. After complete healing(about 2months), patients were assessed by symptoms of FI and CCF score; 3D-US measurements: angle, length and the percentage of IAS divided; the length of the anterior external anal sphincter(EAS); posterior EAS plus PR(EAS-PR); and gap length(the distance from the proximal edge of the anterior EAS to the proximal edge of the posterior PR, which correspond to the weakest area of anterior anal canal; and anal sphincters pressure before and after surgery by anal manometry. The anatomic measurements were correlated with FI score.

Results/Outcomes: A total of 63 women were included, 30(48%) underwent fistulotomy(GI) due to internal anal fistula and 33(52%) sphincterotomy due to chronic anal fissure with high anal resting pressure(RP)(GII). The mean age and parity were similar in both groups. The percentage and the length of divided IAS were significant higher in GI. However the prevalence of FI(40% vs 51%) and severity of symptoms by mean FI score were similar. The angle of the IAS divided was similar. In GI, the percentage of divided muscle was similar in patients with score=0 compared with score \geq 1 (45% vs. 48%/ p<0.48). However, in GII, the percentage of divided muscle was significant higher in patients with score \geq 1 compared those with score=0(25% vs. 19%/ p<0.02). The length of EAS and EAS-PR was similar in both groups. However, the gap length was significantly longer in GII. The anal RP was significantly higher in GII in the pre-operative. However, the RP in the post-operative was similar in both groups. Nonetheless, the RP decreased significantly comparing before and after surgery in both groups.

Conclusions/Discussion: : In this population of female patient submitted to a division of the IAS, the symptoms of FI was minor, present in about half of the patients. Despite of a higher percentage of divided muscle in patients submitted to fistulotomy, the prevalence of symptoms and score of FI were similar in both groups. On the other hands, the anatomic measurements showed longer gap in patients after sphincterotomy. This difference in the anatomic disposition of anal canal may potentially take on functional significance once the IAS has been divided , since there weren't correlated between the extent of IAS division with FI symptoms and severity in patients underwent fistulotomy.
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Variables	Fistulotomy (GI) 30 (48%) Mean ± (range)	Sphincterotomy (GII) 33 (52%) Mean ± (range)	<i>p</i>
Age	45 ± 2.6 (21 – 75)	42 ± 2.0 (21 - 67)	0.346
FI score	1.6 ± 0.4 (0 - 8)	2.0 ± 0.4 (0 – 7)	0.394
Length of the IAS divided* (cm)	1.3 ±0.0 (0.4 - 2.2)	0.7 ±0.0 (0.4 - 1.3)	0.001
Percentage of IAS divided*(%)	47 ±1.9 (27 – 67)	22 ±1.4 (9 – 37)	0.001
Angle of IAS divided	123 ± 4.1 (36 – 162)	119 ± 5.8 (56 - 173)	0.583
EAS length (cm)	1.9 ±0.0 (1.6 - 2.8)	1.9 ±0.0 (1.6 - 2.6)	0.931
EAS-PR length (cm)	3.5 ±0.1 (2.3 - 4.6)	3.6 ±0.0 (2.9 - 4.9)	0.568
Gap length (cm)*	1.9 ±0.1 (0.7 - 1.9)	2.2 ± 0.1 (1.3 - 3.6)	0.024
Resting pressure (mmHg)* (Pre-operative)	76 ±5.6 (45 – 125)	99 ± 3.5 (80 – 139)	0.008
Resting pressure (mmHg) (Post-operative)	58 ± 4.0 (45 – 125)	67 ± 5.2 (80 – 139)	0.261

Data of patients submitted to IAS division by fistulotomy and sphincterotomy.

*(p<0.05). EAS=external anal sphincter/ IAS=internal anal sphincter/ PR=puborectal

IMAGE CAPTION: Data of patients submitted to IAS division by fistulotomy and sphincterotomy.

*(p<0.05). EAS=external anal sphincter/ IAS=internal anal sphincter/ PR=puborectal

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FINAL ID: S10

SESSION SYMPOSIUM NAME:

TITLE: Laser Haemorrhoidoplasty for Advanced Haemorrhoidal Disease – Short-Term Sequelae

ABSTRACT BODY:

Purpose/Background: With an estimated prevalence of 10% quoted by the National Institute for Health and Care Excellence, UK, haemorrhoids continue to be a benign anorectal condition that can significantly impact the quality of life of affected patients. Well-established treatments for advanced haemorrhoidal disease such as haemorrhoidectomy, stapled haemorrhoidopexy and transanal haemorrhoidal dearterialisation are not without complications like increased post-operative pain, symptomatic recurrence, anal stenosis and sphincter dysfunction. Laser haemorrhoidoplasty (LHD) is a relatively new non-excisional surgical technique that has been acclaimed in European studies to provide better treatment outcomes.

Methods/Interventions: A retrospective study of all patients who received LHD for symptomatic Grade 3 and Grade 4 haemorrhoids from November 2017 to March 2022 in the colorectal unit of a district general hospital was conducted with a view to assess short-term functional outcome. Patients were asked to report on the severity of pain on the Visual Analogue Scale and frequency of symptoms based on the Haemorrhoidal Severity Score (HSS developed by Nyström ^{see image attached}) 2 months before and after LHD. Participant consent and feedback was obtained either by a written questionnaire or a phone interview.

Results/Outcomes: A total of 57 (n=57) patients were interviewed. The commonest symptom reported was bleeding (n=54), followed by prolapse needing reduction (n=45), then pain (n=43), itching and discomfort (n=28), and soiling (n=24). There was a significant improvement in severity of pain ($p<0.0001$) post-operatively. Patients also reported an improvement of their pre-existing symptoms including pain ($p<0.00001$), itching and discomfort ($p=0.0001$), bleeding ($P<0.00001$), soiling ($p=0.00007$) and prolapse ($P<0.00001$) based on HSS.

Conclusions/Discussion: Evidence from this study suggests that LHD provides significant short-term improvement in severity of symptoms for patients with symptomatic third- and fourth-degree haemorrhoids. Whilst the results of this study are encouraging, prospective larger multicentre studies assessing long-term outcome will be desirable for proper evaluation of LHD with respect to its efficacy and cost-effectiveness.

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The following questions deal with haemorrhoids. Your answers should reflect the latest 2-week period

- | | | | | | |
|---|--|-----------------------------------|--|---|---|
| 1 | How often do you have pain from the haemorrhoids? | <input type="checkbox"/>
Never | <input type="checkbox"/>
Less than
once a week | <input type="checkbox"/>
1-6 times
weekly | <input type="checkbox"/>
Every day
(always) |
| 2 | How often do you have itching or discomfort of the anus? | <input type="checkbox"/>
Never | <input type="checkbox"/>
Less than
once a week | <input type="checkbox"/>
1-6 times
weekly | <input type="checkbox"/>
Every day
(always) |
| 3 | How often do you have bleeding when passing a motion? | <input type="checkbox"/>
Never | <input type="checkbox"/>
Less than
once a week | <input type="checkbox"/>
1-6 times
weekly | <input type="checkbox"/>
Every day
(always) |
| 4 | How often do you soil your underclothes (soiling from the anus)? | <input type="checkbox"/>
Never | <input type="checkbox"/>
Less than
once a week | <input type="checkbox"/>
1-6 times
weekly | <input type="checkbox"/>
Every day
(always) |
| 5 | How often do you reduce a prolapsing haemorrhoid with your hand when passing a motion? | <input type="checkbox"/>
Never | <input type="checkbox"/>
Less than
once a week | <input type="checkbox"/>
1-6 times
weekly | <input type="checkbox"/>
Every day
(always) |
-

IMAGE CAPTION:

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FINAL ID: S11

SESSION SYMPOSIUM NAME:

TITLE: An Autologous Whole Blood Clot Treatment in Patients with Anal Fistula

ABSTRACT BODY:

Purpose/Background: Ano-rectal fistula (AF) is a chronic inflammatory process that rarely heals spontaneously. Surgery remains the standard treatment for AF. However, there is no consensus about which surgical intervention is preferable to achieve complete healing. In many cases repeated surgical interventions are needed, which increases the likelihood of sphincteric injury which may lead to fecal incontinence.

RD2 Ver.02 is an autologous blood clot, created from the patient's own peripheral blood forming a fibrin clot that was found to both possess, attract and signal growth factors to the wound area, thus promoting wound healing by accelerating the transition from the stagnant inflammatory phase to the proliferative phase, and subsequently resulting in cellular proliferation, wound bed granulation tissue formation and wound closure in chronic wounds

Methods/Interventions: 42 patients with Magnetic Resonance (MRI) confirmed trans sphincteric AF underwent a surgical procedure including fistula debridement, cleaning, and suturing of the internal opening. A water leak test was performed to ensure sealing, followed by injection of RD2 Ver.02 into the AF tract. RD2 Ver.02, is a technology mixing of 15mL of blood, drawn from the patient with kaolin and calcium gluconate, applies to the fistula tract and allows the blood to coagulate inside, minimizing the fistulous tract and thus promoting wound healing. Fistula healing was defined as the absence of any anal symptom, with no discharge from the fistula and a closed external opening confirmed clinically and with MRI 3- and 12-months post-application

Results/Outcomes: At the time of this report, 38 subjects completed the 3 months follow-up and were eligible for analysis. 34 have reached the 6-month follow up and 13 have reached the 1-year mark. At 3 months, 15 patients reached complete healing (45.5% of the per-protocol (PP) population), 8 showed constant progression toward healing and 10 patients failed to heal or showed no improvement. Two (2) patients were withdrawn, and 3 were loss to follow up. Thirty-four (34) patients have reached the 6 months follow-up time point with 18 patients achieving complete healing (58% of the PP), 2 patients in an ongoing healing process, 11 failed, 1 patient LTFU, and 1 recurrence. Thirteen (13) patients have reached the 1-year follow-up visit. Eight (8) have reached complete healing (66.7% of the PP), 4 failed and 1 was a LTFU.

Conclusions/Discussion: RD2 Ver.02 was found to be safe and effective in anal fistula patients with 45.5%, 58%, and 66.7% healing rates in the PP population at 3, 6, and 1 year respectively. Further randomized studies are ongoing in order to compare RD2 application to traditional surgical methods. In anal fistula treatment, there's an unmet need for new technologies promoting healing and preventing recurrence. The RD2 Ver.02 treatment is a promising technology, bringing a safe and effective, non-surgical, minimal invasive solution to the treatment of anal fistula.

(no table selected)

(No Image Selected)

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FINAL ID: S12

SESSION SYMPOSIUM NAME:

TITLE: Autologous Adipose-Derived Stem Cells: An Emerging Treatment Option for Complex Anal Fistulas

ABSTRACT BODY:

Purpose/Background: Anal fistulas continue to be troubled by frequent recurrence and complex treatment regimens, especially in patients suffering from Crohn's Disease (CD). Mesenchymal stem cells (MSC's) have been used for regenerative and immunomodulatory properties with trials reporting good healing rates in treatment of anal fistulas. The objective of this study was to evaluate the results of the use of abdominal stem cells (ASC's) at a single institution.

Methods/Interventions: A retrospective review of a prospectively maintained IRB-approved database identified patients with and without Crohn's Disease undergoing ASC treatment for anal fistula at a single academic institution. These patients had frequently failed more standardized treatments. Patients undergoing planned staged closure were excluded. Perianal Disease Activity Index (PDAI) scores were obtained before and after the procedure. Subcutaneous fat was harvested under general anesthesia and processed based on the operating surgeon's preference. The fistula was debrided, the internal orifice was either closed with suture, with a fibrin plug, or left open; the external orifice was opened to allow for drainage and the ASC was injected around the internal orifice.

Results/Outcomes: A total of 81 procedures were identified with 52 unique patients. Forty-one patients (80.4%) experienced improvement in their symptoms. The average pre-intervention Perianal Disease Activity Index (PDAI) was 8.4 and average post-intervention PDAI was 2.4 at 3 month follow up ($p < 0.0001$). Twenty-nine (64.4%) experienced clinical closure of all fistula tracts. Recurrence rate was 31.8%. Eight patients (15.4%) experienced complications including 7 postoperative abscesses requiring drainage and 1 bleeding episode which was ligated at bedside. Between patients with and without CD there was no difference in closure rate, symptom improvement or complications; nor were there any difference in patients with or without fecal diversion. Patients whose internal orifice was closed with suture had significantly more clinical improvement and fewer complications than patients treated with a fibrin plug or left open.

Conclusions/Discussion:

We found autologous ASC treatment comparable to other current treatments for complex anal fistulas. ASC treatment can be done multiple times and doesn't preclude the use of other procedures in the future, unlike the ligation of intersphincteric fistula tract procedure and advancement flaps which can create scar tissue making repeat procedures more difficult. This has emerged as a promising method to safely address complex fistulas.

(no table selected)

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FINAL ID: S13

SESSION SYMPOSIUM NAME:

TITLE: Risk Factors for the Recurrence and Complications of Perianal Abscesses

ABSTRACT BODY:

Purpose/Background: Perianal abscess is a very common disease among adults. The abscess is considered an acute presentation, with chronic fistula formation in up to 40% of cases .

The treatment of choice is an early and efficient drainage. The data regarding the risk factors for abscess recurrence and its complications is limited and recent publications are mainly focused on patients with inflammatory bowel disease.

The aim of our study was to look into the risk factors for abscess recurrence and fistula formation with regard to patients' and surgical characteristics .

Methods/Interventions: Patients at the age of 18 years or older, who presented to the emergency department and were diagnosed with perianal abscess according to ICD 9 between 2011-2020 were included.

Recurrence of a perianal abscess was defined as a recurrence at the primary site after 4 or more weeks from the surgical intervention. Shorter period was defined as inadequate drainage. The primary outcomes were recurrent or persistent abscess which may require repeat surgery. Secondary outcomes were risk factors for abscess recurrence including patients' comorbidities , symptom duration, laboratory findings, imaging, antibiotic treatment and the surgical intervention with emphasis on the surgeons' level of expertise.

Results/Outcomes: A total of 1000 patients were included in the study period with 749 men, and an average age of 43.6 ± 15.1 years and 41.7 ± 17.3 years for women. Recurrence was documented in 392 cases with 291 men and 101 women with no statistically significant difference. Crohn's was reported in 64 cases, 44 of whom with recurrent episodes ($p < 0.0001$). 393 patients were smokers, 107 of them had recurrence ($p < 0.0363$). Diabetes, colorectal malignancy, immunosuppression, pregnancy and pelvic radiation were not found to impact recurrence. 8% of patients had a short symptom duration of less than 24 hours while 38.3% reported symptoms for more than 3 days. Shorter symptom duration was found to be a predisposing factor for recurrence with a $p < 0.0001$. Patients with primary presentation waited 2.53 hours less than those with a recurrent event ($p = 0.0005$), with no impact on recurrence. The median time for recurrent episode was 20.1 ± 35.29 months. 22.6% were diagnosed with abscess formation at the same site. 815 abscesses were located perianally, 114 were perirectal . A perianal location of an abscess has a relative risk of 0.8 for protection against recurrence . Fistula was diagnosed in 10.2% of all cases, while 9.2% of those in a recurrent event. The surgical level of expertise did not have a significant impact on recurrence rates.

Conclusions/Discussion: While many factors were analysed Crohn's disease and smoking were the only significant risk factors for recurrence of perianal abscess. Disease complexity and underlying pathology is more important than surgical expertise in the management of acute setting of the perianal abscess.

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FINAL ID: S14

SESSION SYMPOSIUM NAME:

TITLE: The Effects of Micronized Purified Flavonoid Fraction in Post-Hemorrhoidectomy Period

ABSTRACT BODY:

Purpose/Background: The most frequent early postoperative complication of hemorrhoidectomy (HE) is thrombosis and edema of mucocutaneous “bridges”. The micronized purified flavonoid fraction (MPFF) is effective and evidence based treatment for thrombosis and edema in acute hemorrhoids. We investigated the efficacy of MPFF in preventing complications following elective HE for chronic hemorrhoids.

Methods/Interventions: Design: prospective monocentral randomized controlled trial. Patients with grade III-IV hemorrhoids, who underwent HE, were randomly allocated either to standard postoperative conservative treatment with MPFF (1st group) or without MPFF (2nd group).

Open HE of 2-3 piles was done under spinal or local anesthesia. Standard postoperative therapy consisted of peroral non-steroid anti-inflammatory drugs and local anesthetics for the first 7 days and further if needed, topical steroids for 7 days, psyllium for 21 days, warm sitz baths for 14 days, niphedipine gel for 21 days. Additionally, in 1st group MPFF were prescribed for 60 days.

Main outcome measures: The patients were followed for minimum 60 days after surgery. Thrombosis or edema of mucocutaneous “bridges” after HE on 1st-7th, 14th, 21st and 30th postop day; pain intensity (VAS) on 1st-7th, 14th, 21st and 30th postop day; quality of life (SF-12 questionnaire) and patient-assessed treatment effect (CPGAS) on 1st, 3rd, 7th, 21st and 30th postop day; presence of perianal skin tags on 60th postop day.

Results/Outcomes: Initially, 70 patients were included. Twenty were lost for follow-up or discontinued treatment early. The data from 50 patients were analyzed (25 in each group). VAS and SF-12 demonstrated no differences between groups in each follow-up point. Compared to 2nd group, the patients in 1st group had significantly higher CPGAS level on 1st, 3rd, 7th, 21st and 30th postop days, significantly lower rate of thrombosis or edema of mucocutaneous “bridges” on 1st-7th, and 14th days, but not on 21st and 30th days (the rate of mucocutaneous “bridges” edema in 1st and 2nd groups on 1st day were 52% and 96%, p<0.05; on 7th day – 36% and 76%, p<0.05; on 14th day – 12% and 48%, p<0.05; on 30th day – 0% and 12%, p=0.235, respectively; the rate of mucocutaneous “bridges” thrombosis in 1st and 2nd groups on 1st day were 20% and 56%, p<0.05; on 7th day – 20% and 52%, p<0.05; on 14th day – 4% and 28%, p<0.05, respectively). Patients in 1st group had significantly lower rate of perianal skin tags on 60th postop day. No MPFF-related adverse effects were registered.

Conclusions/Discussion: MPFF in post-HE period is an effective adjunct to standard medical treatment that helps to reduce the rate of thrombosis and edema of mucocutaneous “bridges” in early postop period, to improve patient assessed treatment effect and to prevent postoperative perianal skin tags formation. MPFF in post-HE period isn't associated with additional pain relief in comparison with non-MPFF standard treatment.

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