CHALLENGE IN MANAGEMENT PROMINENT GRADE IV HEMORRHOID

A Case report

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Introduction

Management of grade 1&2 of internal hemorrhoid are non-operative by advising the patents to have high fiber diet and plebotrophic agent such as MPFF. In case of failure office like procedure scleroteraphy, rubber band ligation is the alternative. Management of grade 3&4 of internal hemorrhoid are operative management. Gold standard of hemorrhoid operation is Morgan Milligan method, an excisional surgery, since this method result in low recurrence rate. However this method is pain-full, therefore a lot of research were done to find the effective and painless operative method. Nowadays of anal cushion preserving surgery considered as minimally invasive surgery is the alternative for painless hemorrhoid operation. There are two types of anal cushion preserving surgery, stapler hemorrhoidopexy and hemorrhoid artery ligation and recto-anal repair (HAL-RAR). After operation non operative procedure (high fiber diet and plebotrophic) also be given.

We reported a case with prominent grade IV, that make operative choice difficult, but a we get the technique that can solve the problem. Therefore here we highlight the surgical technique.

Case

Twenty six years old man, came to St Elizabeth hospital with chief complaint painful lump in the anal canal since 7 days ago. For about 3 years he got chronic spontaneously reducible anal pile and bleed and since 2 months the pile enlarge and only can be reduced manually .

Since 7 days ago unreducible anal lump (prolapse). He several times treated medically by GP.

On physical examination patients in good condition, but looked painful with VAS: 7. On anal region looked a such big prolapsing anal canal skin and mucosa with dentate line in between. The lump looked hyperemic, edema and some thrombus. The size of the lump as big as his scrotum (Figure 1). On rectal examination, there was good anal sphincter tone and no tumor mass within or outside of the rectum. Diagnosis was Prolapsing grade IV big internal hemorrhoid.

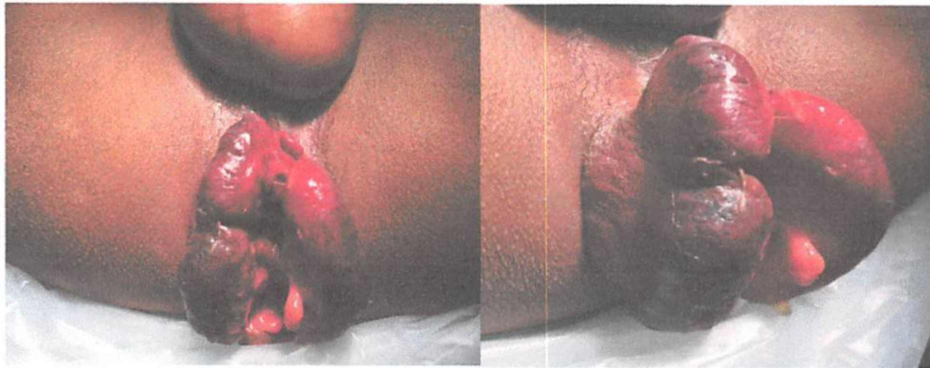

Figure 1. Prolapsing of the anal canal skin and mucosa with dentate line in between, indicate grade IV internal hemorrhoid. Since mass is as big as scrotum, we diagnose as prominent grade IV internal hemorrhoid.

Consideration of management option.

We discussed to find the best management of this case by addressing some question.

Is conservative management can heal this patients?

Prolapsing grade IV hemorrhoid mean that destructive changes in the supporting connective tissue within the anal cushion (muscularis mucosae, Treitz muscle and Park ligament) already mentioned severely that spontaneous reducing the prolapse impossible. Therefore non operative management only that may reduce the inflammation will not worth in this patients.

Is minimally invasive surgery possible in this patients?

Repositioning the prolapsing anal cushion to its position by using stapler hemorrhoidopexy or hemorrhoid artery ligation and recto anal repair (HAL- RAR), we think it is impossible to achieve complete reduction since the prolapsing is too big.

Is Morgan-Milligan method possible the get complete healing for this patients?

In Morgan-Milligan method, removing primary anal cushion (3,7 and 11th O'clock), will left the prominent secondary anal cushion. It will took some weeks to get complete reduction of the rest secondary anal cushion. We think it will not satisfy the patients.

Is White-head method, that removing all (circular fashion) the hemorrhoid tissue will heal this patients? Yes we think that the only operation to remove all of the nodule is White head method. However removing the hemorrhoid circularly produce severe post operative pain and high risk complication like stricture, constipation, incontinent and wet anal syndrome, therefore we personally do not used again this method.

Can reducing the edema and the size of hemorrhoid change the management option?

Micronize purified flavonoid fraction (MPFF) reduce the oedema in leg chronic venous insufficiency (compared to placebo), and also reduce the oedema in leg chronic venous insufficiency (compared to diosmine) (Ramelet 2005). Our own animal research by induction of anal wistar with croton oil showed that mean (SD) anal weight (mgr) in MPFF was 453.61 (96.99) while in placebo 551.87 (65.38) (P=0.046). It can be concluded that MPFF reduce the edema of experimental hemorrhoid (Riwanto & Sigit 2018)

Our rational, preoperative MPFF and reducing the prolapsing pile will decrease the edema and the size of the pile and will influence our next choice in management of this patient. We decided to give MPFF 3x1 gr the day before operation (start after breakfast). In the evening at 09.00 pm, under midazolam sedation the prolapse can easily be reduced into rectum and we did packing the anus. The patient sleep overnight and in the next morning (06.00 am), prepare for operation. In the operating room packing was removed and hemorrhoid was prolapsed. We noticed that there was significantly reduce the edema. However it was still prominent grade IV internal hemorrhoid with less edema. We think it was impossible to be operated with minimally invasive What is the management?

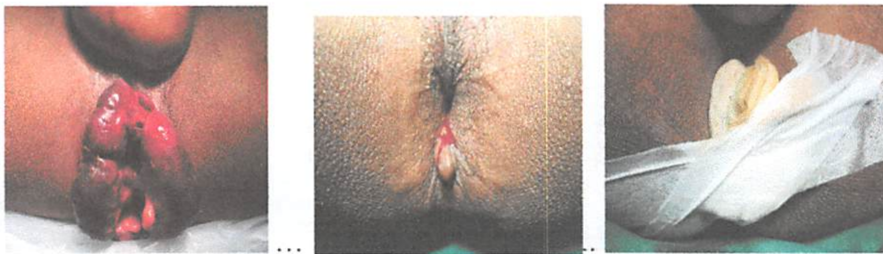

Figure 2. After MPFF 3x1 gr treatment, started in the morning, prolapse was reduced in the evening under midazolam anesthesia and packing.

We personally avoid White Head method. Combination Hemorrhoid Arterial Ligation-Recto anal Repair (HAL-RAR) and Minimal Mucocutaneous Excision (MME) is advised if during HAL-RAR, there are still some prolapse, excessive skin component (…………..)
In this case, it was impossible to do HAL- RAR for primary anal cushion since the nodule is still big enough, therefore we prefer combination Morgan-Milligan and HAL-RAR. We did Morgan Milligan method for primary anal cushion and HAL-RAR for secondary anal cushion.
Under spinal anesthesia, and lithotomy position, under doppler guided we did ligation of branch of rectal artery in primary anal cushion (3,7,11th O-clock) followed by radial excision to primary anal cushion, but it was still left prominent secondary anal cushion. We did HAL-RAR for prominent mucosal bridge (secondary anal cushion). To reduce post-operative paint we did perineal nerve block.

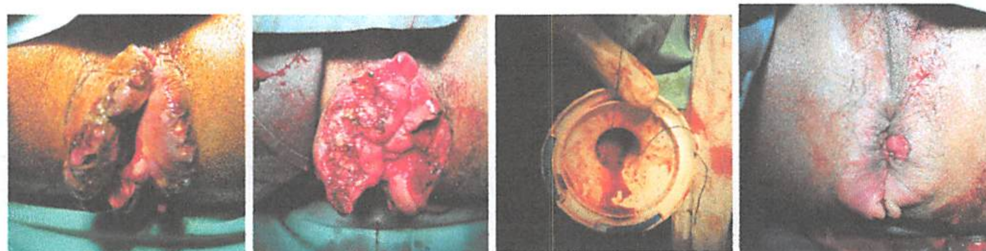

Figure 3. Left: after treatment with MPFF and reducing back the prolapse, sifnificant reduce the edema. Midle left: after Morgan Milligan of primary anal cushion. Midle right: HAL-RAR procedure. Right: the result of the operation.

Cefotaxim as antibiotic prophylaxis was given, and post-operatively patient get ketorolax 2x100 mg and tramadol based on patients request (actually never used it). MPFF 3 x 1 gr for next 3 days then 2x1 gr for the next 7 days. To fascilitate the defecation patient should have high fiber diet and water intake 2-3 L/day. Patients should no strenuous exercise and no sexual intercourse within 2 weeks.

The day before operation VAS was 7, and 24 hours after surgery VAS was 4 and experience with the first flatus and no bleeding. Followed up on 48 hours VAS was 3, have defecation no bleeding and patients went home. On 7th post-operative day VAS was 1, no problem with defecation and no bleeding and good operative wound. On 3rd months post operatively patients no complaint and no sign of relapse. On 17th months post operatively, by phone call, patient in good condition no sign of relapse and no complaint.

Discussion

We expected the pain scale (VAS) at 24 hours post operatively for this case will be 7, because our previous report showed that factors affecting the post operative pain after HAL-RAR were the additional treatment for thrombus, skin tag, hypertrophy of anal papilla and the presence of anal laceration. The highest VAS after 24 hours was in anal laceration, it was 6. (Sigit & Riwanto 2016). This case with multiple wound, rationally VAS will be more than 6, but actually the VAS 24 hour post operatively was 4. The different was dose of MPFF our previous series 2x 1 gr and given post operatively only (Sigit & Riwanto). This case we gave 3x1 gr MPFF, and given pre-operative and post-operatively and 24 hours post operatively VAS was low (4) and first flatus experienced within 24 hours. On 48 hours VAS was 3 and start defecation and no bleeding. Meta-analysis showed that MPFF significantly reduce pain, bleeding, discharge/ leakage and pruritus on hemorrhoid treated medically (Parera et al 2012) and RCT for post hemorrhoidectomy, MPFF reduce pain, tenesmus, pruritus and bleeding (Torre 2004).

Complete removing of the prolapsing grade IV hemorrhoid by means of White Head operation mostly avoided by surgeon due to its complication. Publication regarding White Head operation was very rare in the last three decade. The last publication regarding case series of White Head operation was on 2017 showed that complications including bleeding (6.12%), stricture (2.04%), urinary retention (16.33%), and temporary anal incontinence (2.04%). All patients were discharged from hospital between the fifth and eighth days post-surgery (6.45±1.00 days). (Erzurumlu 2017). We personally also avoided of using White Head method, therefore we have to find the method to manage the such prominent grade IV internal hemorrhoid. Our choice by combination of Morgan Milligan for primary anal cushion and hemorrhoid artery ligation and anopexy for secondary anal cushion gives good result until follow up of 17 months. There was no complaint of incontinence, itching, pain, bleeding and no sign of recurrence.

As conclusion: manage big grade IV internal hemorrhoid is challenging. Combination Morgan Milligan for big pile and HAL-RAR for the rest of pile gives good result. MPFF 3x1 gr pre and post-operatively, reduce the edema, post-operative pain and risk of bleeding, clinically significant

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