

## Short Commentary

# Preliminary Experience with PPH(Hemorrhoidopexy) At Butaro Hospital Rwanda

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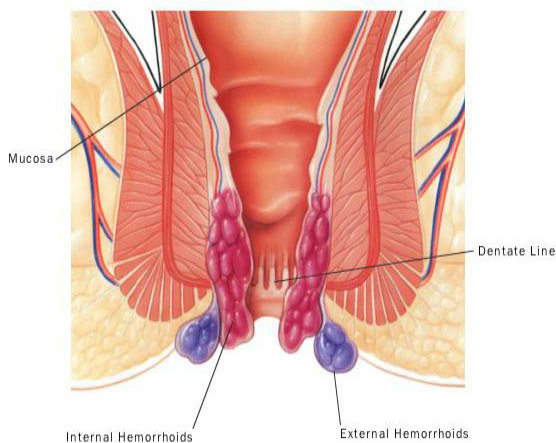
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## Introduction

- Butaro Hospital is situated to the north of Rwanda. It is a cancer Hospital, but we also treat non-cancer related illnesses.
- This is a two years retrospective study of the outcome of 12 patients who were done PPH (Procedure for Prolapse and Hemorrhoids) from June 2015 to June 2017.
- Out of the 12 patients, four were female and eight were male. There were no deaths and no intra-operative complications. Discharge from hospital was between 1 to 2 days. Majority of the patients were satisfied with the operation

## What Are Haemorrhoids?

Hemorrhoids are venous cushions or congestion around the anus. The cushions help to maintain stool and gas continence. Symptoms appear when these cushions are over distended with blood (Figure 1).



**Figure 1:** It is estimated that 30% of the population get hemorrhoids at one time in their life.

## Symptoms

- Rectal bleeding
- Perianal discomfort
- Pruritis ani
- Protruding mass
- Severe pain when thrombosis occurs in the external hemorrhoids
- Always try to rule out rectal cancer by doing Proctoscopy/ sigmoidoscopy

## Causes of Hemorrhoids

- Causes are largely unknown but may be due to
- Chronic constipation
- Pregnancy
- Standing for a long period of time
- Heredity?
- Straining like in weight lifting
- Portal hypertension does not cause hemorrhoids

## Classification

- **FIRST DEGREE:** Patient presents with rectal bleeding only
- **SECOND DEGREE:** Patient gets a prolapsing mass on defecation but the mass returns spontaneously into the rectum afterwards.
- **THIRD DEGREE:** The mass protrudes on defecation and can only be returned manually by the patient.
- **FOURTH DEGREE:** There is protruding mass all the time which cannot be returned into the rectum

## Anatomy

- The ano-rectum blood supply is from 3 sources.
- inferior mesenteric artery (thro' superior hemorrhoidal artery/vein)
- Internal iliac artery (middle rectal artery/vein)
- Pudendal artery (inferior rectal artery/vein)

While superior rectal vein belongs to the portal venous system, the latter 2 empties into the systemic veins.

Consequently, the ano- rectum is an area of portal-systemic anastomosis. Logically one would expect hemorrhoids to be caused by portal hypertension. However, normally, portal hypertension does not cause hemorrhoids.

## Anatomy Con't

- The right superior rectal artery divides into two branches before it reaches the anus, the anterior and the posterior branch.
- This represents the 7 o'clock and the 11 o'clock. The left superior rectal artery approaches the rectum as a single branch and this represents 3 o'clock.
- These are the areas where the hemorrhoids are normally found (Figure 2).

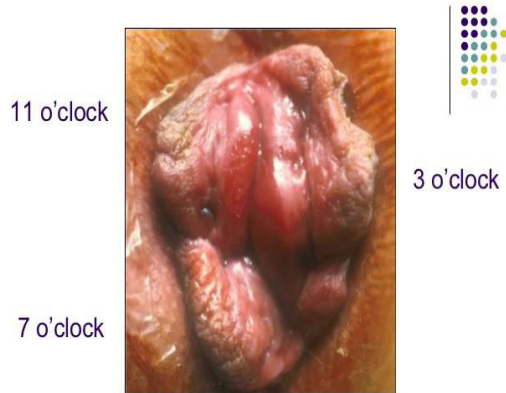


Figure 2: Consequently, hemorrhoids are found at 3,7&11 o'clock.

## Treatment

- **First degree:** change in diet, use of fibers and bulk formers like Fybogel. Hydrocortisone creams, anal inserts like anusol, stool softeners,
- **Second to fourth degree**
  - i. Sclerotherapy
  - ii. Barron band ligation
  - iii. Laser
  - iv. MAD is now obsolete

- v. open hemorrhoidectomy
- A Milligan Morgan
- Hill Ferguson

## Current Operative Treatment

- PPH (procedure for prolapse and hemorrhoids) also called hemorrhoidopexy. Was first done by an Italian called Antonio Longo in 1993. since then it has been popularized in Europe and North America.
- The procedure resects the redundant rectal mucosa above the *dentate* line and consequently brings up the prolapsing hemorrhoids to their anatomical position.
- Advantages
  - 1 it is painless
  - No bleeding
  - Fast recovery period
  - Disadvantage. It is? expensive

## Patient Preparation

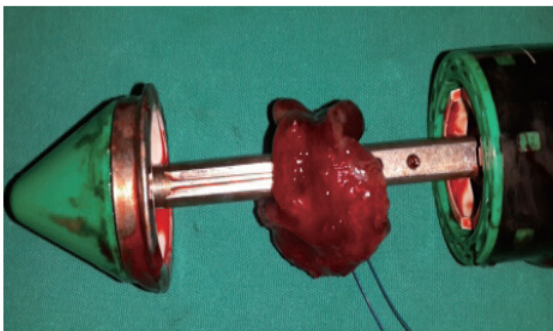
- Anesthesia: spinal anesthesia is adequate but general anesthesia can also be used
- Don't give enema. Enema makes the operation messy
- Position: prone jack-knife/some patients can be done in lithotomy position
- In our series only one patient was done in lithotomy position
- Retract the buttocks with strappings to improve exposure
- Left handed operator stands on the left side of the table (Figure 3)



Figure 3: Prone Jackknife Position.

## Procedure

- Lubricate and dilate the anus with CAD (Circular Anal Dilator)
- Anchor the circular anoscope in four places with stay sutures. The anoscope stays in place throughout the operation.
- Make a purse string suture above the dentate line with 2/0 prolene 26mm RBN
- Lubricate and introduce the opened gun to bypass the purse string suture. Knot the purse sting suture behind the anvil. Close the gun tightly and wait for 20 seconds
- Remove the lock and fire the gun. Wait for 30 seconds
- unlock the gun and make 180 degrees turn. Check for any bleeding in the staple line Check for a complete dough nut (Figure 4).



**Figure 3** Hemorrhoidal prolapse is excised as a ring or 'donut' of tissue above the hemorrhoidal cushions and immediate re-anastomosis of the mucosa is performed.

**Figure 4:** Hemorrhoidal prolapse is excised as a ring or 'donut' of tissue above the hemorrhoidal cushions and immediate re-anastomosis of the mucosa is performed.

## Data Analysis for Twelve Patients Operated

- **Sex**
- Female 4
- Male 8
- **Age**
- 25 years to 60 years
- symptoms
- Rectal bleeding 80%
- Anal mass 100%
- Rectal pain 10%
- Pruritis ani 6%

## Results

- Mild postoperative pain 2
- Post-operative bleeding 0
- Post-operative itching 1
- Hospital stay 1-2 days
- Patient satisfaction 95%
- Recurrence 0

## Conclusion

PPPH is an effective and efficient method of treating second, third and fourth degree hemorrhoids. It has many advantages over the traditional open methods. General surgeons are encouraged to learn and master the method for the benefit of our patients. The cost of the equipment may be high but the overall cost to the hospital is much less compared to the traditional methods