

# HEMORRHOIDECTOMY VS RUBBER BAND; COMPARISON OF POST OPERATIVE COMPLICATIONS

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**ABSTRACT... Objectives:** To compare open hemorrhoidectomy and Rubber Band Ligation (RBL) in the management of 2<sup>nd</sup> and 3<sup>rd</sup> degree hemorrhoids in terms post operative and hospital stay. **Design:** Experiential Randomized Control Trial. **Setting:** Department of surgery, Allied Hospital and Independent University Hospital Faisalabad. **Period:** Dec 2008 to May 2009. **Patients & Methods:** 100 consecutive patients with second and third degree hemorrhoids were randomly divided into two groups. Group A (50 patients) were operated by open hemorrhoidectomy (Milligan morgan technique) while in group B (50 patients) rubber band ligations was performed. Open hemorrhoidectomy was performed under spinal anesthesia while rubber bands were applied with local xylocaine gel using Barron's rubber band ligator. All the three hemorrhoids were ligated in single session. **Results:** Average hospital stay was 24 hours in patient operated by open hemorrhoidectomy as compared to one hour in rubber band ligation. 60% patients in group A developed moderate to severe pain requiring I/V morphine derivatives while 40% developed mild pain and treated with NSAIDS. In group B only 20% patients developed moderate pain and were dealt with I/M diclofenac sodium. Eighty-eight percent patients in group A and 60% patients in group B developed mild to moderate bleeding in first postoperative week, which was self limiting. 6 patients developed severe bleeding after hemorrhoidectomy requiring blood transfusion. During six month follow up, two patients (4%) of open hemorrhoidectomy and 3 patients (6%) of RBL presented with recurrence and respective procedures were repeated. **Conclusions:** Rubber band ligation is safe, quick, economical and effective method for the treatment of 2<sup>nd</sup> and 3<sup>rd</sup> degree hemorrhoids.

**Key words:** Hemorrhoidectomy, Rubber Band Ligation (RBL), Barron's Band.

## INTRODUCTION

Hemorrhoids are defined as dilatation of internal venous plexus with displaced Anal cushions<sup>1</sup>. It is one of most frequent diseases of anal region. Its incidence peaks in between 45 to 65 years and is more common in males<sup>1</sup>. It is the most frequent pathology with rectal bleeding in primary care<sup>2</sup>.

The diagnosis of hemorrhoids is made by history and clinical examination including proctoscopy. The management depends upon grading (severity) of the disease. Different modes of treatment include; Injection sclerotherapy<sup>3-6</sup>, cryosurgery, bipolar infrared coagulation, sphincter dilatation, Doppler guided hemorrhoid artery ligation<sup>7</sup>, RBL, stapled<sup>8</sup> and Surgical hemorrhoidectomy<sup>4</sup>. Milligan and Morgan open hemorrhoidectomy is traditional method for treatment of all grades since 1935. Nowadays rubber band ligation is gaining popularity. Blaisdell first describe RBL of internal hemorrhoid in 1954. It was subsequently popularized by barron in 1963 and known to be amongst most frequently practiced treatment for symptomatic internal

hemorrhoid<sup>20</sup>. It is being used for treatment of 2<sup>nd</sup> and 3<sup>rd</sup> degree hemorrhoid<sup>9-11</sup>. It is relatively easy procedure, does not require hospitalization or anesthesia and provides definitive cure in 2<sup>nd</sup> and 3<sup>rd</sup> degree of hemorrhoids<sup>11</sup>. The percentage of complication in rubber band ligation is less than open hemorrhoidectomy<sup>11</sup>.

## Objectives of Study

The rubber band ligation has been declared as safe, reliable and effective treatment for hemorrhoids<sup>11-12</sup>. The purpose of present study is to compare open hemorrhoidectomy with rubber band ligation.

## PATIENTS AND METHODS

One hundred consecutive patients, irrespective of age and gender, presenting with uncomplicated hemorrhoids at Allied Hospital and Independent University Hospital Faisalabad from Dec 2008 to May 2009 were randomly divided into two equal groups. Group A subjected to open hemorrhoidectomy (Milligan and Morgan) while in group B, Rubber Band Ligation (RBL) was performed. In group A patients were admitted for investigations and

preoperative assessment. Open hemorrhoidectomy (Milligan Morgan) was performed under spinal anaesthesia. Mean operating time was 25 minutes (20-40Minutes). After surgery anal packing was done and pack was removed on first postoperative day. The patients were discharged on analgesics, antibiotics, stool softener and Sitz bath. The patients were followed up after one week and then monthly for six months. In group B rubber band ligation was performed as day case surgery. Proctoscopy was done in lithotomy position and rubber bands was applied above the dentate line with the help of Baron’s applicator. Triple ligation was done in single session. Mean operating time was 8 minutes. After ligation patients were kept in recovery for about an hour and analgesics were given if required. Patients were examined on 3<sup>rd</sup> post operative day in OPD and then monthly for six months. DRE and proctoscopy were done at each visit to assess the patients.

**RESULTS**

Out of 100 patients 35 were females and 65 males with age range from 20 to 60 years. Mean hospital stay was 24 hours in group A (open hemorrhoidectomy) and one hour in group B (Rubber band Ligation). In group A 30 patients (60%) developed moderate to severe pain requiring morphine derivatives and 40% complained of mild pain settled with oral NSAIDS. In group B 20% patients complained of mild pain requiring NSAIDS . Self limiting mild to moderate hemorrhage was encountered during first post operative week in 88% patients in group A and 60% in group B. Six patients (12%) in group A developed severe bleeding requiring hospitalization and blood transfusion.

Two patients 4% in group A and three patients 6% in group B presented with recurrence during 6 months follow up and the procedure was repeated with no further recurrence.

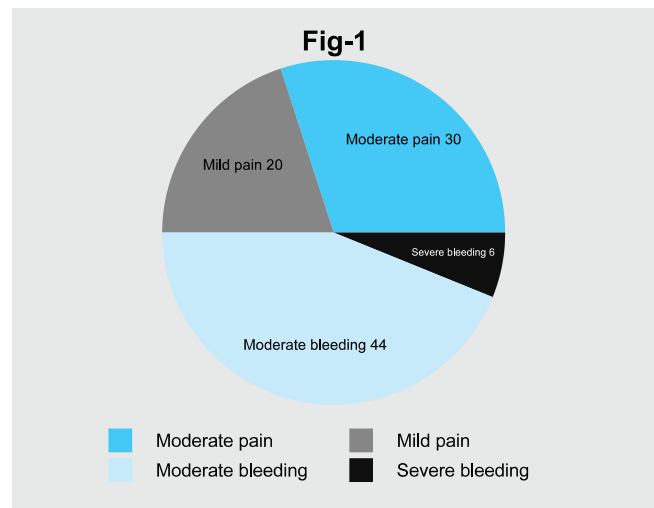
Post operative pain		
Groups	Mild Pain	Moderate Pain
Group A	40%	60%
Group B	20%	-

**Table I Study analysis of 50 patients of Open hemoidectomy during 24 hours (Group A)**

Symptoms	No of patients	%age
Moderate pain	30	60%
Mild pain	20	40%
Moderate bleeding	44	88%
Severe bleeding	6	12%

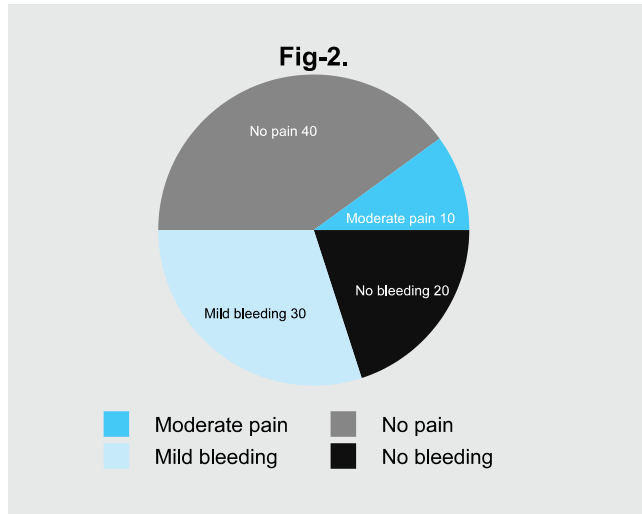
**Table II Study analysis of 50 patients of Rubber band Ligation during I hr hospital stay(Group B)**

Symptoms	No of patients	%age
Moderate pain	10	20%
No pain	40	80%
Mild bleeding	30	60%
No bleeding	20	40%



**DISCUSSION**

Hemorrhoids are among the most common diseases of anorectal region with male predominance and peak incidence during 45 to 65 years<sup>1</sup>. In present study male to female ratio was 2:1 with age range from 20 to 60 years. In other local studies the male to female ration was 3:1 with age range of 20-80 years<sup>13-16</sup>. Open surgical hemorrhoidectomy has been traditional method of



treatment for nearly three quarters of a century but search for less invasive modalities led to various other options like injection sclerotherapy, cryosurgery, bipolar infrared coagulation. Doppler guided hemorrhoid artery ligation, stapled hemoidectomy and rubber band ligation (RBL).

Option. As compared to open hemoidectomy rubber band ligation is safe , cost effective with comparable results. Rubber band ligation has been declared as safe and effective therapy for symptomatic hemorrhoids. It can be used to deal any degrees of hemorrhoids with same effectiveness<sup>12</sup>.

Barron reported satisfied results of rubber and ligation in 150 cases<sup>13</sup>. Many other studies have proved rubber band ligation as excellent method of treating hemorrhoids<sup>14</sup>.

## CONCLUSIONS

Rubber band ligation is safe , quick, economical and effective methods for the treatment of 2<sup>nd</sup> and 3<sup>rd</sup> degree hemorrhoids.

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## PREVIOUS RELATED STUDIES

- Sajid Sheikh, Muhammad Khalid Naseem Mirza, Fakhar Hameed, Muhammad Afzal. Stapler haemorrhoidectomy: a novel and safe technique. Prof Med Jour 13(1) 113-118 Jan, Feb, Mar, 2006.

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HE HAS ENOUGH PROBLEMS.**

**DONALD RUMSFELD**