HEMORRHOIDECTOMY VS RUBBER BAND;
COMPARISON OF POST OPERATIVE COMPLICATIONS

ABSTRACT... Objectives: To compare open hemorrhoidectomy and Rubber Band Ligation (RBL) in the management of 2nd and 3rd 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 and 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 2nd and 3rd 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 cushions1. It is one of most frequent diseases of anal region. Its incidence peaks in between 45 to 65 years and is more common in males1. It is the most frequent pathology with rectal bleeding in primary care2.

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 selerotheraphy3,4, cryosurgery, bipolar infrared coagulation, sphincter dilatation, Doppler guided hemorrhoid artery ligation5, RBL , stapled6 and Surgical hemorrhoidectomy7. 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 hemorrhoid8. It is being used for treatment of 2nd and 3rd degree hemorrhoid9,10. It is relatively easy procedure, does not require hospitalization or anesthesia and provides definitive cure in 2nd and 3rd degree of hemorrhoids10. The percentage of complication in rubber band ligation is less than open hemorrhoidectomy11.

Objectives of Study
The rubber band ligation has been declared as safe, reliable and effective treatment for hemorrhoids11-12. 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 209 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 (20-40 Minutes). 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 3rd 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.

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DISCUSSION
Hemorrhoids are among the most common diseases of anorectal region with male predominance and peak incidence during 45 to 65 years. 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. 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.13

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

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

REFERENCES


**PREVIOUS RELATED STUDIES**