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# Comparative study of Apamarga Kshar Lepa vs. Laser Haemorrhoidopexy in Hemorrhoids

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### ABSTRACT

Hemorrhoid disease is most common amongst diseases of the rectum and large intestine. Father of surgery Sushruta has explained different methods of treatment like Aushadhi (medicines), kshar (chemical cauterization), Agni (heat induced cauterization), and shastra (surgery). In this present study I have selected traditional Ayurveda treatment Kshar lapa karma (local chemical cauterization) vs. Laser haemorrhoidopexy for hemorrhoids. Aim and Objective: Our aim was to compare Aamarg kshar lepa with Laser for treatment of symptomatic hemorrhoids. Evaluate efficacy of apamarg kshar lepa and laser in hemorrhoids. Material and Method: This study was conducted at Ayurveda Hospital Bharati Vidyapeeth (Deemed to Be University), Pune. Patients with grade 2 hemorrhoids were eligible for the study. Patients having DM, HT, Renal diseases, HIV positive, Hbs Aug positive were excluded. 20 patients treated with apamarg kshar Lepa and 20 patients with laser haemorrhoidopexy(LHP). Operative time and postoperative PR Bleeding, were evaluated. Postoperative complication studied in both groups. Apamarg kshar having pH 13.89. Results: Total number of 40 patients (22 male, 18 female, mean age 45yrs) entered the trial. There was a statistically not significant difference between the two groups regarding the postoperative PR bleeding. Procedure time for apamarg kshar was 12 min vs. 20 min LHP. Postoperative complications like urine retention, stenosis, and abscess with fistula in ano found in very negligible numbers in the group treated with Apamarg kshar lepa. CONCLUSION Apamarg kshar lepa is almost same as LHP considering postoperative PR bleeding and duration time.

Keywords: Laser haemorrhoidoplsty, apamarg kshar lepa, bleeding, duration time

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## INTRODUCTION

Hemorrhoid disease is most common amongst diseases of the rectum and large intestine, and the estimated worldwide prevalence ranges from 2.9% to 27.9%, of which more than 4% are symptomatic [1][2]. Age distribution demonstrates a Gaussian distribution with a peak incidence between 45 and 65 years with subsequent decline after 65 years [3,][4]. Men are more frequently affected than women [5]. The anorectal vascular cushions along with the internal anal sphincter are essential in the maintenance of continence by providing soft tissue support and keeping the anal canal closed tightly. Hemorrhoids are considered to be due to the downward displacement suspensory (Treitz) muscle [6][7]. The treatment options for symptomatic hemorrhoids have varied over time. Measures have included conservative medical management, non-surgical treatments and various surgical techniques. The various non-surgical treatments include rubber band ligation (RBL), injection sclerotherapy, cryotherapy, infrared coagulation, laser therapy and diathermy coagulation; all of which may be performed as out- patient procedures without anesthesia. These nonsurgical methods are considered to be the primary option for grades one to three (grade I-III) hemorrhoids [8]. The father of surgery Sushruta has explained different methods for the treatment of hemorrhoid's those are Shastra, Kshar, and Agni. In my present study I have selected traditional Ayurveda treatment kshar karma (local chemical cauterization) vs. laser haemorrhoidopexy. Post hemorrhoidectomy PR bleeding is the commonest problem associated with the surgical techniques. The other early complications are urinary retention (20.1%), bleeding (secondary or reactionary) (2.4%-

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6%) and subcutaneous abscess (0.5%). The long-term complications include anal fissure (1% -2.6%), anal stenosis (1%), incontinence (0.4%), fistula (0.5%) and recurrence of hemorrhoids (09, 10). The aim of this study was to compare PR bleeding and duration time of intervention between of the two methods, Apamarg kshar Lepaand laser hemorrhoidopexy (LHP).

### **MATERIAL AND METHODS**

In this study 40 patients were included, of which, 20 patients were treated with Apamarg kshar Lepa and 20 patients were treated with laser hemorhoidopexy method. Patients with stage II hemorrhoids and minimal prolapse of mucosa were treated with both methods. This study was performed at Avuryeda Hospital Bharati Vidyapeeth (Deemed to Be University), Pune from June 2019 to December 2020.

After a detailed clinical examination and proctoscopy, simple enema was administered 3 hours before the intervention. 20 patients were treated with Apamarg kshar lepa.Patient was given lithotomy position, a slit proctoscope with a diameter of 23 mm was inserted in the anal canal, protruded mass encircled with cotton to avoid spillage of kshar on normal mucosa, kshar applied over protruded mucosa for 90 seconds. when color of mass became reddish black, kshar washed with kanji for neutralization.

In another 20 patient'slaser procedure was performed. Patient was given lithotomy position, proctoscope with a diameter of 23 mm was inserted in the anal canal. Laser shots were delivered with a 980-diode laser through a 1000-nm optic fiber in a pulsed fashion to reduce undesired degeneration of periarterial normal tissue. The depth of shrinkage can be regulated by the power and duration of the laser beam.Through a 1000-micron optic fiber, five laser shots generated at a power of 10.5 W with duration of 1.2 s each and a pause of 0.6 s caused shrinkage of tissues to the depth of approximately 5 mm.

Patients were discharged within 12 to 24 hours, and were followed for 21 days for healing progress and complications. The patients were followed for the level of postoperative PR bleeding. Postoperative PR bleeding was recorded by using a 0- No bleeding (Nil), 1- Once in a while (mild), 2 - 1/2 times in a week (moderate), 3- regular bleeding after defecation (severe), 4- profuse. This was followed for 1st, 7th , 14th, 21<sup>st</sup> post-operative day. The duration of intervention was recorded in minutes. The data were analyzed with statistical tests and presented with respective tables and graphics.

### RESULTS

The Apamarg kshar lepa was performed on 20 patients which had symptomatic grade II hemorrhoids, with mean age  $45 \pm 12.3$  (range 28-60) years. There were 12 men and 8women. The LHP procedure was performed on 20 consecutive patients which had symptomatic grade II hemorrhoids, with mean age 42 ± 12.6 (range, 24–60) years. There were 10 men and 10 women.

Regarding early postoperative PR bleeding in both groups it is almost same. The same values also resulted for the period of 21 days. These results are presented in tables 1, 2 and in graphs 1, 2

	Grade 2	12	11	9	0	0				
Graph 1: PR Bleeding in Apamarg Kshar Lepa (AKL)										
PR Bleeding AKI										
50										
0 (	) 8 18 20	8	9 3	2	0 1	2 11	9 0	0		
0		4 - 5		7 0	44 - 5	24		annanaannaannaa		
	Grade 0	1 Day	4 Day Grat	de 1 Day	14 Day.	Gra	de 2			

#### Table 1: PR Bleeding in the Apamarg kshar lepa group PR bleeding Day 1 Day 4 Day 7 Day 14 Day 21

8

3

18

2

20

0

0

9

Grade 0

Grade 1

0

8

Table:2: PR Bleeding in the LHP group

PR bleeding	Day 1	Day 4	Day 7	Day 14	Day 21
Grade 0	0	0	15	19	20
Grade 1	7	10	0	1	0
Grade 2	13	10	5	0	0

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The mean operative time was  $19\pm 3.5$  min in the LHP group and  $15\pm 3.8$  min in Apamarg kshar lepa (p<0.01). No major adverse effects or complications were reported. Bleeding was observed in one case (the patient was on anticoagulants). In one case surgical hemostasis was necessary. Minor pain that required medication was reported in ten cases, four in the Apamarg kshar lepa group and six in LHP. No blood transfusions were needed in any of cases.

### DISCUSSION

We found that there was no significant difference in PR bleeding in both groups, in the early postoperative period. Postoperative PR bleeding is one of the most important complications that disturbs many patients and makes them to undergo surgery. In this study, postoperative PR bleeding during first three weeks after both procedures, was almost same in the both groups (p<0.05). Our study showed that Apamarg kshar lepa is a safe procedure associated with less postoperative pain. Apamarg kshar lepa is associated with lesser duration time compared with LHP which is satisfactory for symptomatic hemorrhoid patients with grade II stage (15 vs. 20 min and p<0.01). Apamarg kshar lepa is less expensive.

### CONCLUSION

In summary, Apamarg kshar lepa procedure is more preferred in comparison with LHP. Postoperative PR bleeding is same in both the groups (p<0.05). Duration time is significantly shorter in Apamarg kshar lepa procedure (p<0.01).

### **CONFLICT OF INTEREST: NONE DECLARED.**

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