



Clinical evaluation of Infrared coagulation in the management of Ardra Arsha w.s.r. to Internal Haemorrhoids – A pilot study

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ABSTRACT

Arsha (Haemorrhoids) is one of the commonest ailment occurring in *Guda Pradesha* (Ano-rectal region). Symptoms of *Ardra Arsha* closely resembles to the clinical features of Internal Haemorrhoids. In this bleeding per anum is the principal symptom to which patient shows his utmost concern and always worried if it continues. The prime cause of ano-rectal disorders is constipation. A constipated bowl is the devils workshop. Constipation increases the back pressure into the haemorrhoidal veins to produce Haemorrhoids. Various treatment modalities available for Haemorrhoids include operative as well as conservative method. A simple and safe para-surgical method I.R.C. (Infrared Coagulation) is selected for present trial. I.R.C. was performed through a special designed slit proctoscope. Patients excluded were with coagulopathy disorders, fissure in ano and anal ulcers. Total 10 patients with ages ranging from 20-65 yrs., irrespective of sex, religion, socio-economic status etc. were selected for the trial. At the end of study it was found that results were highly significant after I.R.C. Treatment. It is an outpatient Department (OPD), non-surgical, ambulatory, painless and bloodless procedure, without any hospital stay. Early recovery and minimal recurrence of haemorrhoids were noted without any morbidity or mortality.

Key Words: *Arsha*, Haemorrhoids, Infrared coagulation, I.R.C.



INTRODUCTION

Arsha (Haemorrhoids) is one of the commonest ailment occurring in *Guda Pradesha* (Ano-rectal region). Symptoms of *Ardra Arsha* closely resemble to the clinical features of Internal Haemorrhoids. Its incidence increases with advancing age and peaks in people of aged 45 to 60 yrs. and at least 50% of people over the age of 50 years have some degree of Haemorrhoidal symptoms. Now days most of the persons suffer from any one of the complaints of piles during their life time.^[1] *Arsha* described by all the classical texts of *Ayurveda*. *Acharya Sushruta* and *Vagbhata* even placed this disorder in the “*ASHTA MAHAGADA*”.^[2, 3] It gives trouble to the person like as an enemy, which was explained by *Acharyas*.^[4] National Centre for Health Statistics Johanson and Sonnenberg found that 10 million people in United States complained of Haemorrhoids, Prevalence rate of 4.4 %. In both sexes, a peak in prevalence was noted from age 45–

65 yrs, with a subsequent decrease after age 65 yrs. The development of haemorrhoids before age 20 yrs. was unusual.^[5] A recent prospective study of screening colonoscopy patients revealed the presence of haemorrhoids in 38.9%, with 44.7% of those patients suffering from haemorrhoidal symptoms.^[6] A method that could return the anal cushions to their normal size and positions, would be most preferable by patients rather than other methods which destroy tissues and may interfere with the mechanism of continence. Infrared photocoagulation, a technique introduced in the late seventies by Nath^[7], satisfies these requirements. In this procedure the tissue is coagulated by infrared photocoagulation using mechanical pressure.^[8]

Infrared photocoagulation (also called coagulation therapy) is a medical procedure used to treat early stages of haemorrhoids. This treatment is only for internal haemorrhoids. During the procedure, a device is used that creates an intense beam of

infrared light. Heat created by the infrared light causes scar tissue, which cuts off the blood supply to the haemorrhoid. The hemorrhoid dies and a scar forms on the wall of the anal canal. The scar tissue holds nearby veins in place so they don't bulge into the anal canal.

AIMS AND OBJECTIVES

In the climate of cost containment, malpractice suits and competition for patients, a definite trend is developing towards office treatment for hemorrhoids. The search is ever on for a procedure that is easily learned, is cost effective, gives satisfactory results and lacks complications. The aim of this study was to provide a safe, effective and economical therapy of Haemorrhoids for mass of population and assess the complications and long-term outcome of IRC to make patients symptom-free.

MATERIALS & METHODS:

- a) **Selection of the patients:** Patients were registered from OPD/IPD of P.G. Department of Shalya Tantra, National Institute of Ayurveda, Jaipur,
- b) **Inclusion criteria :**
 1. Patient diagnosed as *Ardra Arsha* (Bleeding piles) between the ages of 20-65 yr.
 2. Patients were selected irrespective of sex, economical status and education.
 3. 1st and 2nd degree internal haemorrhoids.
- c) **Exclusion criteria:**
 1. Patient suffering from any systemic diseases which requires their management was excluded from study e.g. Hypertension, Diabetes mellitus, HIV, Tuberculosis, Hemophilic disorder, Carcinoma of rectum, Hepatitis-B

2. Pregnant Females.
 3. 3rd and 4th degree internal haemorrhoids, Complicated pile masses.
 4. Pappiloma, condyloma.
 5. Fistula and other ano rectal disorder involvement with piles.
 6. Crohn's disease, Ulcerative Colitis.
- d) **Laboratory Investigations:** For the purpose of evaluating the general condition of the patient and to exclude other pathologies, Complete Blood count, ESR, Blood sugar, HIV- I & II, HBsAg, Blood urea, Serum creatinine. X-ray Chest (PA view) (*if required*), Routine examination of Urine, Electrocardiography (*if required*) was done.
- e) **Infrared Photocoagulation procedure :** Patient was made to lie down in lithotomic position, anus and surrounding area was cleaned with antiseptic lotion. Draping was done. Lubricated normal proctoscope was introduced, position of pile mass was noted and proctoscope was removed. Then IRC slit proctoscope was introduced.

Then the pile mass was gently cleaned with the cotton balls. Then tip of the IRC probe was placed in direct contact with base of a Haemorrhoid for 1.5 seconds to coagulate. A clot was formed at the base of the Haemorrhoid. This same procedure was done three times at every Haemorrhoid to cut off the circulation of the Haemorrhoid. On every application of IRC patient felt some burning sensation for few seconds. Dry dressing was done and the patient was shifted to ward. Then Patient was asked to avoid straining during defecation. *Haritaki Choorna* in dose of 3 grams was given at night with lukewarm water as a laxative. Diet restriction was advised to the patients as per Ayurveda literature.

- f) **Follow up:** 4 months follow up was made to all the patients.

OBSERVATIONS AND RESULTS:

On the basis of criteria of assessment adopted, the total effect of therapy has been carried out. Which is mentioned in the table below.

S. No.	Symptoms	Mean		Diff.	% of Relief	SD	SE	't'	p	Result
		BT	AT							
1.	Constipation	1.40	0.7	0.70	50.00	0.48	0.15	4.58	< 0.01	VS
2.	Character of Bleeding P/R	2.0	0.3	1.70	85.00	0.67	0.21	7.96	< 0.001	HS
3.	Pallor	0.8	0.3	0.50	62.50	0.53	0.17	3.00	>0.01	S

VS- Very significant, HS-Highly significant, S –Significant

DISCUSSION AND CONCLUSION

After 7 days of treatment with Infrared coagulation remarkably good results were found in bleeding per anum in all the patients, that was 85%, respectively 62.5 % was in pallor and 50 % in constipation. Average recovery time was 20 days, average time to return to work was 2 days.

No adverse effects were seen like burning sensation, sphincter spasm, pain etc. Intermittent bleeding was seen throughout 1 month. It is a day care procedure which has no need of anesthesia.

Infrared photo coagulator device creates an intense beam of Infrared light to generate heat. Heat created by the infrared light causes burn wound followed by healing produced scar tissue, which ceases the blood supply to the Haemorrhoid up to certain extent and hence bleeding subsided. In *Arsha* (Haemorrhoids) bleeding per anum is the principal symptom to which patient shows his utmost concern and always worried if it continues, this procedure was able to relieve this symptom completely.

Haemorrhoidal bleeding in these patients causes anaemia and pallor. After this procedure bleeding was stopped and it leads to improvement in pallor. Heat created by the infrared light cause firm scar tissue at the base of pile masses which fixes nearby veins and mucosa in place so they don't bulge out much into the anal canal so that patient did not felt any resistance during defecation which was complained by the patients as constipation before procedure.

IRC is easy to implement, an ambulatory instrumental treatment for haemorrhoidal disease. 1st and 2nd degree haemorrhoids can be managed non-operatively. We did not encounter any complications, IRC should be considered as a simple trouble-free, safe, non-surgical and outdoor option. In this study early recovery and minimal recurrence of haemorrhoids were noted without any morbidity or mortality. It can also be used in complicated cases where surgery remains contraindicated.



I.R.C. INSTRUMENT

I.R.C. APPLICATION



JUST AFTER APPLYING I.R.C. TREATMENT



REFERENCES

- 1) John Goligher, Surgery of the Anus, Rectum and Colon, 5th edition, A.I.T.B.S. Publishers & Distributors, Delhi; 2002, Volume I, chapter 4, Pp. -98.
- 2) Shastri Ambika Dutta, *Sushrut Samhita, Purvardha*, Edition: Reprint 2010, Chaukhambha publication, *Sutra Sthana* (33/4-5). Pp.-163.
- 3) Kaviraja Atrideva Gupta 'Vidyotini' Hindi Commenary of *Astangahrdayam* of *Vagbhata*, Chaukhambha publication, 2068, *Astangahrdayam Nidan Sthana* (8/30), Pp. 339
- 4) Kaviraja Atrideva Gupta 'Vidyotini' Hindi Commenary of *Astangahrdayam* of *Vagbhata*, Chaukhambha publication, 2068, *Astangahrdayam Nidan Sthana* (7/1), Pp.331
- 5) Philip H.Gordon., Santhat Nivatvongs, Principles and Practice of Surgery for the colon, Rectum and Anus , 3rd Edition, Informa healthcare 270 Madison Avenue, New York , Pp. 144
- 6) Riss S, Weiser FA, Schwameis K, et al. The prevalence of haemorrhoids in adults. International J Colorectal Disease, 2012; 27:215–220.
- 7) Nath G, the new principle of infra-red coagulation in medicine and its physical fundamentals. Colo-Proctology International, 1981, 3: 379-381.
- 8) Tajana A, Chiurazzi D & De Lorenzi I, Infrared photocoagulation, cryosurgery and laser surgery in haemorrhoidal disease. Annali Italiani di Chirurgia, 1995, 66: 775-782.