"A COMPARATIVE CLINICAL STUDY OF EFFICACY OF GUD HARITAKI MODAK IN 1ST AND 2ND DEGREE INTERNAL HAEMORRHOIDS WITH SOORAN KANDA POWDER."

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ABSTRACT

Ayurveda is for maintenance of health, to prevent & to cure diseases. In the present scientific era, people are fed up with the side effects & after effects of the most effective & fast acting modern drugs, which are lowering the human immunity. Basic principles of Ayurveda have significant Value in the life of modern era, hence one cannot deny the implacability of principles and these principles are based on strict experimental studies of several years. Results are outcome of those studies have been given a place in Ayurvedic texts. So now a day's people are coming back to the nature from synthetics, hence the Ayurveda will be the future medicinal science of the world, not only the India. In this upcoming Era of Hurry, Worry & Curry, fastfood, change or irregularity in diet & diet timing, sedentary life style, tremendous mental stress is there. All these factors disturb digestive system which result into so many diseases & one of the important group is become Ano-Rectal diseases. Such a wide spread disease offers a great challenge for the surgeon's world as well as to the patients also. While working in Shalyatantra outdoor patient department and

indoor patient department it was observed that percentage of patients suffering from Ano-Rectal diseases are significant, hence I selected the topic for study. Now day's requirement of easily available medicinal treatment. Haritaki Modak has better result over to cure to reduce its effects by taking orally route.

KEYWORDS: Guda Haritaki Modak, Haemorrhoid, Sooran Kanda powder, Pilemass.

INTRODUCTION

Ayurvedic system of medicine has been prevalent in India since the Vedic period, and still remains the mainstay of medical relief to over 60% of population in the nation. It is the most ancient science of life having a holistic approach. It is the science dealing with physical mental and spiritual health.

It not only treats the disease but also deals with the preventive measures of the disease and life style management for healthy living.

Ayurveda is known to mankind may be since the existance of mankind on earth. Its presence is mentioned in Atharvaveda and considered upaveda of it. Though known since long time, Ayurveda was texted as a separate encyclopaedic and authorative classic book by Sushruta in 2000 B.C. Since then Arsha is known to mankind as common anorectal disease and difficult to treat.

Sushruta and other Acharyas considered arshas as one among the ashtomahagadas Because of its chronicity, site of origin, difficulty in management and its complications. They mentioned four types of treatment to manage the Arsha I. e. Bheshaja, Kshar Agni and Shastrakarma.

Because of life style modification and sedentary life, now a days prevalence of arshas is increasing. Because of this life style changes there occurs derangement of jatharagni and irregular bowel habits which causes prokopa of Vata and other doshas which ultimately leads to arshotpatti.

Majority of patients particularly female patients hesitate to consult a physician about their anorectal problem at an early stage. They only consult after attaining chronicity and disturbance in day to day activities. At this stage it is easy to control the disease with bheshajchikitsa which is first line of treatment described by Acharya Sushruta.

While working in Shalyatantra OPD and IPD it was observed that number of patients suffering from haemorrhoids was significant and hence the disease is selected for the study. The progressive pathogenesis of the disease produces various symptoms such as bleeding, pruritus ano, occasionally pain etc. To treat these ailments number of modalities are used and each one having its own significance. As described by Sushruta Arsha covers the vast topic so haemorrhoid as per modern medicine is taken into consideration in account of Guda Arsha irrespective of its Dosha.

While describing treatment of Guda Arsha Acharya Sushruta has mentioned four treatment modalities 1) Bheshaj i.e. treatment by medicine 2) Kshara i.e. application of Kshara locally to haemorrhoid 3) Agnikarma 4) Shastrakarma. Out of these treatment modalities Bheshaj karma is first line of treatment and if done earliest in the course of disease can yield significant results.

Present study is taken to find out Comparative study of efficacy of Guda Haritaki Modak in I˚ and II˚ internal haemorrhoids with Sooran kanda powder as both these drugs are mentioned in all Samhitas by all Acharyas as first line of treatment for bheshajsadhyaarsha.

This study may help to halt the further pathological process of I˚ and II˚ internal haemorrhoids and can help those patients who are not willing or are unfit for surgery.

AIMS

To compare the efficacy of Gud Haritaki Modak in I˚andII˚ internal haemorrhoids with Sooran kanda powder.

OBJECTIVES

1) To study in detail the aetiopathogenesis and prevalence of Arsha in light of the description available in the modern medicine for haemorrhoids.
2) To study the influence of modern living style on Arsha (haemorrhoids).

MATERIAL AND METHODS

Materials

60 patients of Arsha (I˚andII˚internal hemorrhoid) of both sexes equally divided into 2 groups.

GROUP A

Gud Haritaki Modak.

Composition

Gud-2.5g.

Haritaki-2.5g.

Dose

5g once in a morning on empty stomach (5 Modak of 1g each).

GOUP B

Sooranakanda powder.

Dose

2.5g bid.

Methods

1. Diagnosis is made after history taking and thorough local examination and proctoscopy.

2. Necessary investigations done.

3. Informed written consent of the patient is taken before the treatment.

Method of preparation of drug

1) 2.1 kg of Gud is taken and avaleha is prepared by heating it and Haritaki powder of same weight i.e. 2.1kg is added into it and Modak(vati) of 1g is prepared as mentioned in SharangadharSamahita as follows

2) Good quality Sooranakanda powder is directly purchased from the market.

3) Both the drugs are standardized in a reputed pharmacy.

Inclusion criteria

1) 1st and 2nd degree internal haemorrhoids.

2) Both male and female patients.

3) Patients of age group 15 to 50 years old.

Exclusion criteria

1) 3rd and 4th degree haemorrhoids

2) Thrombosed haemorrhoids.

3) Haemorrhoids with ulcerative colitis.

4) HIV patients.

5) Prolapse of rectum.

6) Patients with hepatic disorders.

7) Diabetic patients.

8) Tuberculosis patients.

9) External haemorrhoids.

Criteria for assessment

The following pattern will be adapted for scoring.

PR bleeding

0- No bleeding.

1- Mild bleeding with defecation.(up to10 drops)

2- Moderate bleeding.(10 to 20 drops)

3- Profuse bleeding.(more than 20 drops)

Constipation

0- No constipation.

1- Mild constipation (evacuation of bowel after 1day gap).

2- Moderate constipation (evacuation of bowel after 2 days gap).

3- Severe constipation(evacuation of bowel after 3 or 3< days gap)

Guda kandu (Itching)

0 - No itching

1 – Mild itching (Itching remains for 1 hour after defecation).

2 – Moderate itching (Itching remains up to 4 – 5 hours after defecation)

3 – Severe itching (Itching remains for whole day).

Anemia

0 -No anemia (Hb-normal level)

1- Milld anemia-(Hb-9gm% to 11gm %)

2- Moderate anemia (Hb-7gm% to 8gm %)

3- Severe anemia (Hb less than 7)

INVESTIGATIONS

Routine investigations before and after treatment.

- Blood:- CBC,ESR,BT,CT

- BSL

a) Fasting

b) Post prandial

- Urine

a) Routine

b) Microscopic

- LFT

  RFT

  HBsAg

- Chest x ray

- HIV I and II

- Digital rectal examination

- Proctoscopy

3-Assessment of effect of therapy

Cured- >80% relief in signs and symptoms

Markedly improved- >50 % and upto 80% relief in signs and symptoms.

Improved-Up to 50% relief in signs and symptoms.

Unchanged- No of relief in sign and symptoms.

OBSERVATIONS AND RESULTS

Observations were recorded and noted as follows

1) Total number of patients recruited in the study-   62

2) No of patients who completed study-   60

3) No of patients who received Gud Haritaki Modak-   30

4) No of patients who received Sooran Kanda powder -   30

No of patients enrolled in the trial in the beginning and no of patients dropped out afterwards are tabulated below accordingly.

Group	A	B	Total
No of patients in the beginning	32	30	62
Patients dropped out	2	0	2
Patients remaining till end of trial	30	30	60

Table showing classification of patients according to sex

	MALE	%	FEMALE	%	TOTAL
GROUP A	18	60%	12	40%	30
GROUPB	19	63.33%	11	36.66%	30

As far as sex is concerned no. of male patients is high in each group. Above table shows that out of total 60 patients there are total of 37 male patients and 23 female patients.

Statistically, the distribution of patients according to sex in both groups is insignificant. Hence, both groups are homogenous.

Table showing classification of patients according to age

AGE GROUP	15-30	%	31-40	%	41-50	%
GROUPA	10	33.33%	11	36.66%	9	30%
GROUPB	12	40%	10	33.33%	8	26.66%

Above table shows that there are total 22 patients of age group15-30 year of age,21 patients of age group between 31-40 years and 17 patients of age group between 41-50 years.

Statistically, the distribution of patient according to age in above three groups is insignificant. Hence, three groups are homogenous.

Table showing distribution of patients according to addict and non-addict

	ADDICT	%	NON ADDICT	%	TOTAL
A GROUP	15	50%	15	50%	30
B GROUP	14	46.66%	16	53.33%	30

Above table shows the no. of addicts and non-addicts. In Group A 15 patients are addict and 15 are non-addict. In Group B 14 patients are addict and 16 are non-addict. Statistically both the groups are homogenous.

Table showing the type of addiction to which the patients are addicted

Addiction	Alcohol	Tobacco chewing	Smoking	Total
Group A	7	3	5	15
Group B	7	2	5	14
Total	14	5	10	29

Above table shows there were total 14 patients addicted to alcohol 10 patients were addicted to smoking and 5 patients were addicted to tobacco chewing.

Distribution of patients according to diet

	VEG	%	MIXED	%
GROUPA	6	20%	24	80%
GROUPB	9	30%	21	70%

Above table shows that there were 24 patients having mixed diet in group A and 6 patients with veg diet. In group B 21 patients were having mixed diet and 9 patients with veg diet.

Table showing classification according to occupation-

Occupation	Job	Housewife	Labour	Student
Group A	13	8	6	3
Group B	12	5	5	8

Above table shows distribution of patients according to their occupation. There were total 25 patients who were having office job as occupation, 13 were housewives and 11 were labour and 11were student.

Distribution of patients according to religion

Religion	Hindu	Muslim	Christian	Others
Group A	26	3	1	0
Group B	26	4	0	0

Above table shows that in group A there were 26 Hindu patients, 3 Muslim patients and 1 Christian patient. In group B there were 26 Hindu, 4 Muslim patients.

Table showing distribution of patients according to effect of treatment

Effect	CURED	IMPROVED	MARKEDLY IMPROVED	UNCHANGED
GROUP A	4	1	25	0
GROUP B	0	24	6	0

The above table shows total effect of treatment in group A i e. Gud Haritaki there were 4 patients who were cured, 25 patients showed markedly improvement and 1 patient was improved. In group B there were 24 patients who showed improvement, and 6 patients were markedly improved, while no patient was cured. In both the group no patient was unchanged.

Total effect of therapy in Group – A

Sr	R.N.	BT	AT	diff	%	REMARK
1	6824	7	2	5	71.42857	Markedly improved
2	2319	8	2	6	75	Markedly improved
3	1134	6	1	5	83.33333	Cured
4	1756	8	3	5	62.5	Markedly improved
5	1189	8	2	6	75	Markedly improved
6	6656	8	2	6	75	Markedly improved
7	2290	8	3	5	62.5	Markedly improved
8	6374	7	2	5	71.42857	Markedly improved
9	3241	8	3	5	62.5	Markedly improved
10	6955	9	3	6	66.66667	Markedly improved
11	7145	8	2	6	75	Markedly improved
12	7388	8	3	5	62.5	Markedly improved
13	1876	6	0	6	100	CURED
14	456	5	1	4	80	Markedly improved
15	2005	10	3	7	70	Markedly improved
16	532	8	3	5	62.5	Markedly improved
17	3157	7	2	5	71.42857	Markedly improved
18	991	6	2	4	66.66667	Markedly improved
19	2126	7	3	4	57.14286	Markedly improved
20	5487	10	4	6	60	Markedly improved
21	4512	8	3	5	62.5	Markedly improved
22	2186	11	4	7	63.63636	Markedly improved
23	6857	8	4	4	50	Improved
244	5449	6	0	6	100	CURED
25	8870	7	2	5	71.42857	Markedly improved
26	89	5	0	5	100	Cured
27	311	6	2	4	66.66667	Markedly improved
28	1432	9	3	6	66.66667	Markedly improved
29	567	7	2	5	71.42857	Markedly improved
30	708	7	2	5	71.42857	Markedly improved

Total effect of therapy in Group – B

Sr.	OPD no	BT	AT	diff	%	REMARK
1	1842	5	2	3	60	Markedly improved
2	56	5	4	1	20	Improved
3	793	7	3	4	57.14286	Markedly improved
4	1027	6	3	3	50	Improved
5	1089	8	4	4	50	Improved
6	1172	8	4	4	50	Improved
7	889	7	3	4	57.14286	Markedly improved
8	2246	6	4	2	33.33333	Improved
9	2123	10	7	3	30	Improved
10	2066	7	3	4	57.14286	Markedly improved
11	2311	9	6	3	33.33333	Improved
12	2485	6	4	2	33.33333	Improved

| 13 | 2718 | 7 | 5 | 2 | 28.57143 | Improved |
14	2612	9	5	4	44.44444	Improved
15	3135	6	3	3	50	Improved
16	3182	7	5	2	28.57143	Improved
17	3202	9	7	2	22.22222	Improved
18	3307	8	6	2	25	Improved
19	3343	10	6	4	40	Improved
20	2702	9	7	2	22.22222	Improved
21	1062	9	5	4	44.44444	Improved
22	3591	10	6	4	40	Improved
23	3625	9	7	2	22.22222	Improved
24	3712	4	1	3	75	Markedly improved
25	3133	9	6	3	33.33333	Improved
26	919	6	3	3	50	Improved
27	4110	9	5	4	44.44444	Improved
28	186	11	8	3	27.27273	Improved
29	5002	7	3	4	57.14286	Markedly improved
30	4383	5	3	2	40	Improved

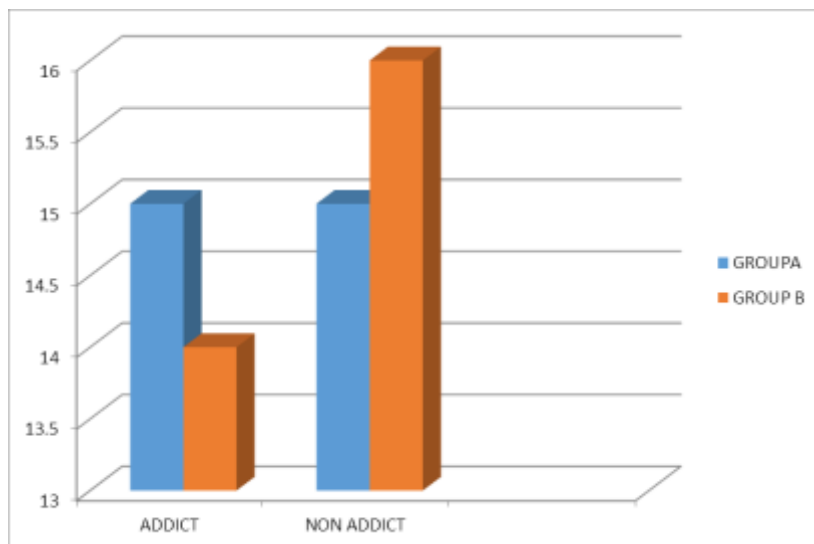**Distribution of patient according to sex**
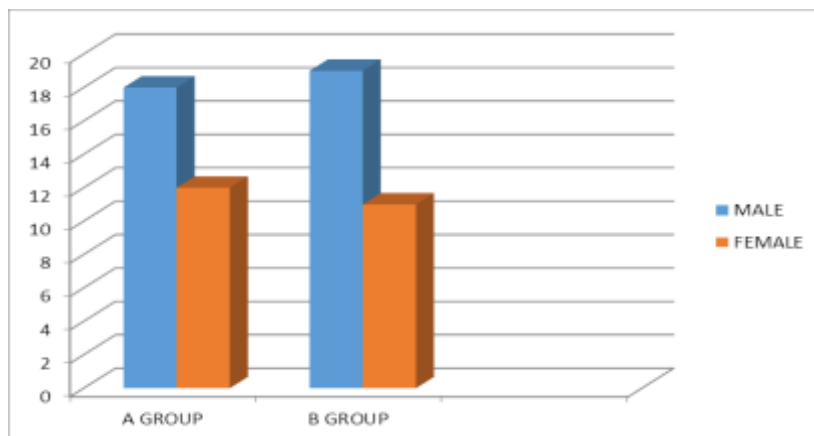
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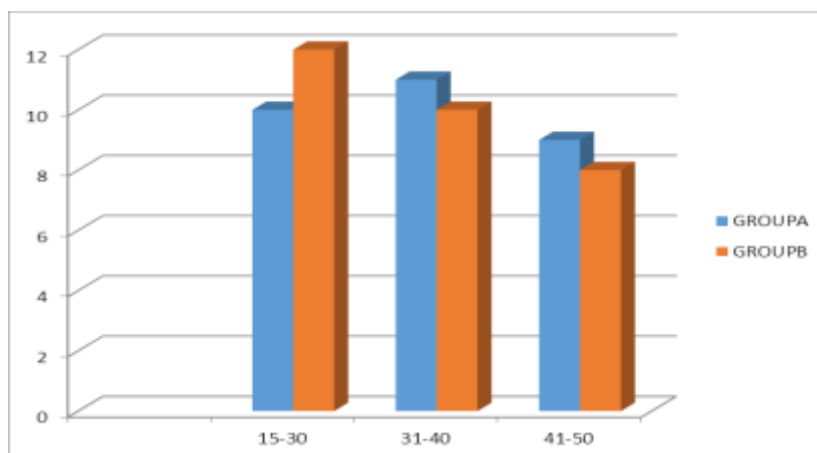
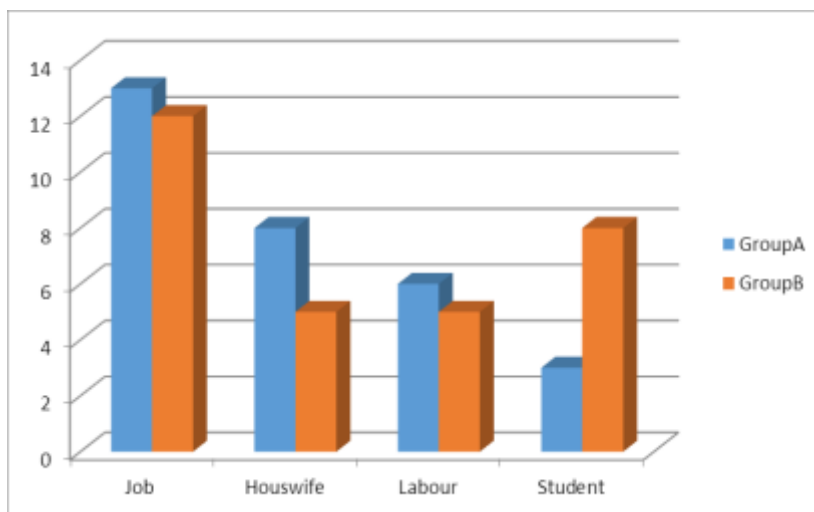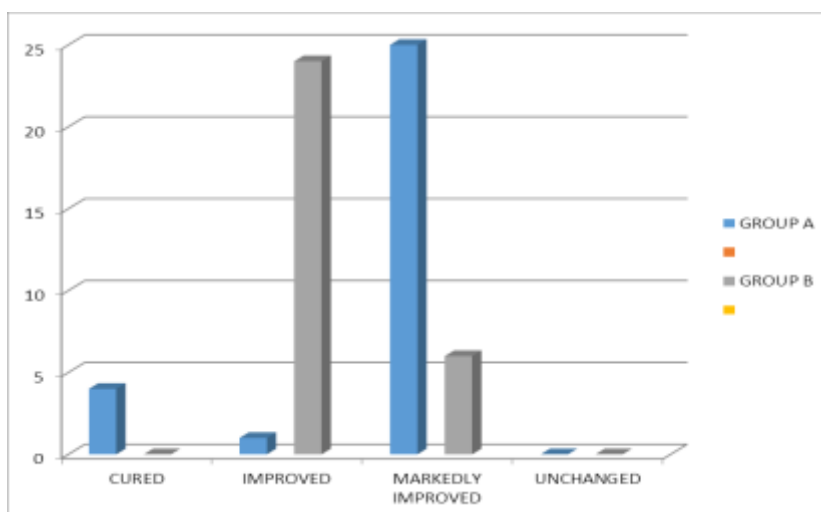**Distribution of patients according to diet**
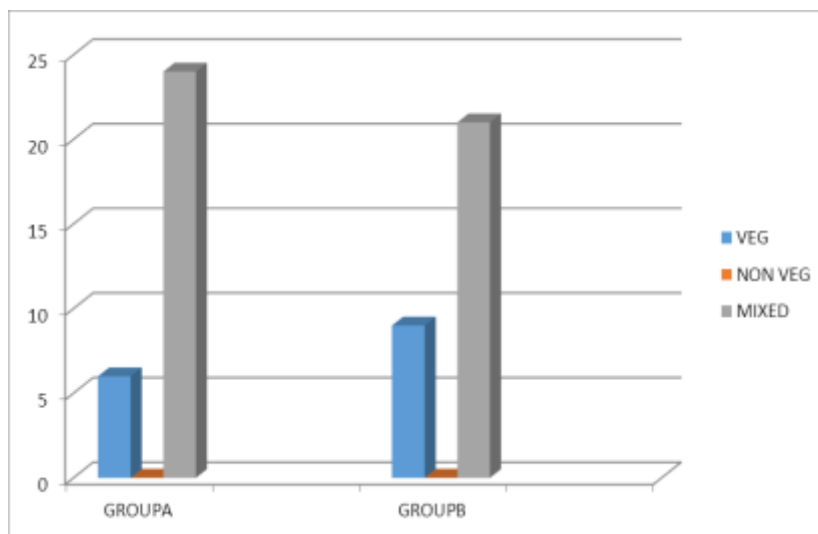
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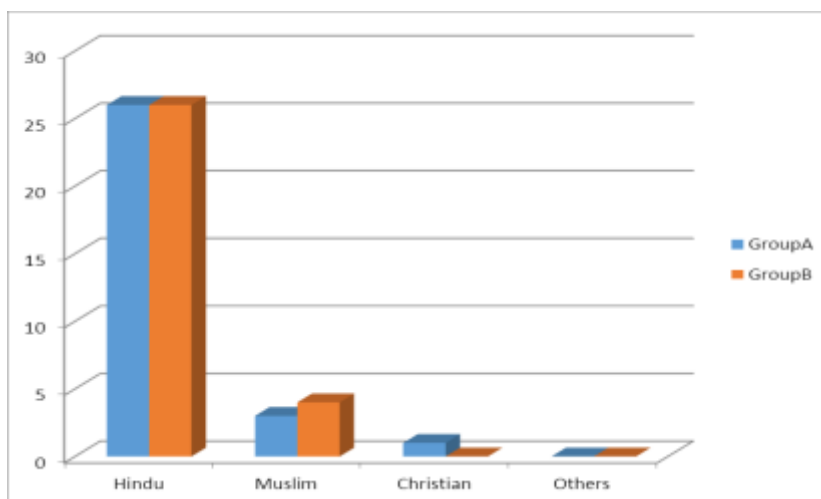

Distribution of patients according to Occupation

Distribution of patients according to effect oftherapy

Distribution of patients according to religion

Statistical Analysis of effect of therapy of groupA By Wilcoxon signed rank test.

Sr. No	Criteria of Pain		B.T	A.T	Diff	Sum Of All Signed Ranks (W)	No Of Pairs	Z VALUE	P Value
1	PR Bleeding	Mean	1.900	0.5333	1.367	465	30	4.78	<0.0001 Extremely Significant
		SD	0.7589	0.5713	0.4901				
		SE	0.1385	0.1043	0.08949				
2	Constipation	Mean	1.767	0.5000	1.267	465	30	4.78	<0.0001 Extremely Significant
		SD	0.7289	0.5724	0.4498				
		SE	0.1329	0.1045	0.08212				
3	Guda kandu(Itching)	Mean	1.900	0.4667	1.433	435	30	4.47	<0.0001 Extremely Significant
		SD	0.7120	0.5713	0.5683				
		SE	0.1300	0.1043	0.1038				
4	Anemia	Mean	1.967	0.7667	1.200	465	30	4.78	<0.0001 Extremely Significant
		SD	0.6687	0.6261	0.4068				
		SE	0.1221	0.1143	0.07428				

1) For PR bleeding before treatment mean is 1.900, Std. deviation is 0.7589and std error is 0.1385. after treatment mean is 0.5333, std deviation is 0.5713 and std error is 0.1043, Sum of all signed ranks is 465, no of pairs is 30, z value is 4.78 and p is<0.0001 which is extremely significant hence the drug is effective in stopping PR bleeding.

2) For constipation before treatment mean is 1.767, Std. deviation is 0.7289and std error is 0.1329. after treatment mean is 0.5000, std deviation is 0.5724 and std error is 0.1045, Sum of all signed ranks is 465, no of pairs is 30, z value is 4.78 and p is<0.0001 which is extremely significant hence the drug is effective in constipation.

3) For Itching before treatment mean is 1.900, Std. deviation is 0.7120and std error is 0.1300 after treatment mean is 0.4667, std deviation is 0.5713 and std error is 0.1043, Sum of all signed ranks is 435, no of pairs is 30, z value is 4.47 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Guda kandu(Itching).

4) For Anemia before treatment mean is 1.967, Std. deviation is 0.6687and std error is 0.1221. after treatment mean is 0.7667, std deviation is 0.6261 and std error is 0.1143, Sum of all signed ranks is 465, no of pairs is 30, z value is 4.78 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Anemia.

Statistical Analysis of effect of therapy of groupB by Wilcoxon signed rank test.

Sr. No	Criteria of Pain		B.T	A.T	Diff	Sum Of All Signed Ranks (W)	No Of Pairs	Z VALUE	P Value
1	PR Bleeding	Mean	2.133	1.567	0.5667	153	17	3.62	<0.0001 Extremely Significant
		SD	0.7303	0.6789	0.5040				
		SE	0.1333	0.1240	0.09202				
2	Constipation	Mean	1.733	0.9667	0.7667	231	21	4.01	<0.0001 Extremely Significant
		SD	0.7397	0.6687	0.5683				
		SE	0.1350	0.1221	0.1038				
3	Guda kandu(Itching)	Mean	2.000	1.300	0.7000	210	20	3.92	<0.0001 Extremely Significant
		SD	0.7878	0.8367	0.5350				
		SE	0.1438	0.1528	0.09767				
4	Anemia	Mean	1.733	0.7667	0.9667	351	26	4.45	<0.0001 Extremely Significant
		SD	0.7849	0.7279	0.4901				
		SE	0.1433	0.1329	0.08949				

1) For PR bleeding before treatment mean is 2.133, Std. deviation is 0.7303and std error is 0.1333. after treatment mean is 1.567, std deviation is 0.6789 and std error is 0.1240, Sum of all signed ranks is 153, no of pairs is 17, z value is 3.62 and p is<0.0001 which is extremely significant hence the drug is effective in stopping PR bleeding.

2) For constipation before treatment mean is1.733, Std. deviation is 0.7397and std error is 0.1350. after treatment mean is 0.9667, std deviation is 0.6687 and std error is 0.1221, Sum of all signed ranks is 231, no of pairs is21, z value is 4.01 and p is<0.0001 which is extremely significant hence the drug is effective in constipation.

3) For Itching before treatment mean is2.000, Std. deviation is 0.7878and std error is 0.1438. after treatment mean is 1.300, std deviation is 0.8367 and std error is 0.1528, Sum of all signed ranks is 210, no of pairs is 20, z value is 3.92 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Guda kandu(Itching).

4) For Anemia before treatment mean is 1.733, Std. deviation is 0.7849and std error is 0.1433. after treatment mean is 0.7667, std deviation is 0.7279 and std error is 0.1329, Sum of all signed ranks is 351, no of pairs is 26, z value is 4.45 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Anemia.

Statistical analysis of Hb %(parametric data) of GroupA using paired t test

Parameter:	Column A	Column B	Difference
Mean:	8.187	11.123	-2.937
# of points:	30	30	30
Std deviation:	1.501	2.071	1.322
Std error:	0.2741	0.3782	0.2414
Median:	7.900	10.700	-2.800

t=12.166 with 29 degrees of freedom,

r(correlation coefficient)=0.7712

P=0.001 considered extremely significant

Statistical analysis of Hb%(parametric data) of GroupBusing paired t test

Parameter:	Column A	Column B	Difference
Mean:	8.853	11.047	-2.193
# of points:	30	30	30
Std deviation:	1.622	2.090	1.259
Std error:	0.2962	0.3816	0.2299
Median:	8.000	10.950	-2.350

t=9.539 with 29 degrees of freedom

r (correlation coefficient)=0.7984

P=0.001 considered extremely significant

Comparison between Group A and Group B drugs by Man Whitney Test.

Sr. no	Parameters	Mean		S.D.		U	Uʿ	R	Rʿ	p
		A group	B group	A group	B group					
1	PR Bleeding	1.367	0.5667	0.4901	0.5040	161.50	738.50	1203.5	626.50	<0.0001 Extremely significant
2	Constipation	1.267	0.7667	0.4498	0.5683	261	639	1104	726	0.0044 Very significant
3	Guda kandu	1.433	0.7000	0.5683	0.5350	189.50	710.50	1175.5	654.5	<0.0001 Extremely significant
4	Anemia	5.267	0.9667	0.8277	0.4901	0.000	900	1365	465	<0.0001 Extremely significant

By Man Whitney Test

1) In PR bleeding, Guda Kandu (itching), and Anemia p value is <0.0001 which is extremely significant i.e. groupA drug is more effective than groupB in reducing PR bleeding, Guda kandu and Anemia.

2) In constipation p value is 0.0044 which is very significant hence groupA drug is more effective than groupB in reducing constipation.

DISCUSSION

Haemorrhoid is the most commonly seen anal pathology after anal fissures; this has been recognized and is being treated from ancient times.

A huge amount of information is available in modern science on the aetiology of haemorrhoid. The basic cause is the absence of valves in the haemorrhoidal vessels followed by lack of supportive tissue in the lower 7 cm. of the rectal wall beneath the sub mucosa, along with this basic anatomical cause the precipitating factor for the varicosity of haemorrhoidal vessels is increased abdominal pressure and increased intrarectal pressure due to causes such as improper dietary habit, less roughage diet etc. leading to constipation and straining to pass the stool leads to increased abdominal and intrarectal pressure; other causes for increased abdominal pressure are chronic cough, smokers cough, diarrhoea etc.

Presence of haemorrhoidal mass itself is not an indication for treatment, unless and until they show the symptoms like bleeding, protrusion, inflammation, thrombosis etc. Once the

haemorrhoid shows the symptoms, the treatment should be started first of all with conservative mode.

Plan of study

Total 60 patients were included in the study according to inclusion and exclusion criteria after thorough examination and laboratory investigations.30 patients were given Gud Haritaki Modak in the dose of 5g in morning and called groupA, while 30 patients were given Sooran Kanda powder in the dose2.5g bid. Patients in each group were called for follow up on every week for 4 weeks and sign and symptoms were recorded. Signs and symptoms on the day of commencement of treatment were recorded as 0th day i. e. before treatment. Observation on4th week was considered as after treatment results. Observation and results are discussed as follows-

1) General discussion

2) Clinical parameter

3) Total effect of therapy

1) General discussion

Sexwise distribution of patients shows that there were 18 male patients (60%) in group A and 12 female patients (40%). While in group B there were 19 male patients (63.33%) and 11 female patients (36.66%). This difference may be due to the shyness of female patients to discuss the ailment of private organs.

Age wise distribution of patients shows that in group A there were 10 patients(33.33%) in the age group 15-30, 11 patients(36.66%) in the age group 31-40, and 9 patients(30%) in the age group 41-50.While in group B there were 12 patients (40%) in the age group 15-30, 10 patients (33.33%) in the age group 31-40 and 8 patients (26.66%) in the age group 41-50. This result is inconclusive to determine the prevalence of disease in the society as well as relation with age as only 1st and 2nd degree internal haemorrhoids are included in the study.

According to diet in groupA 6 patients (20%) were vegetarian and 24 patients (80%) were taking mixed diet. In groupB 9 patients (30%) were vegetarian and 21 patients (70%) were taking mixed diet. High percentage of patients in mixed diet category is due to constipation leading to increased intra abdominal pressure due to straining at stool, as non vegetarian diet doesn't have roughage and leads to constipation.

In category of addiction in group A 50% patients were addicted to some kind of addiction and 50% patients were non addict. In group B 46.66% patients were addict and 53.33% patients were non addict .Out of addicted patients i. e. total 29 addict patients in group A and group B, 14 patients were addicted to alcohol, 10 patients were addicted to smoking and 5 patients were addicted to tobacco chewing. This shows that alcohol addiction may cause greater incident of Haemorrhoids.

According to occupation in group A 13 patients were doing office job, 8 patients were housewife, 6 were labour and 3 were student. IngroupB 12 were doing office job, 5 were housewifes, 5 labours and 8 students. This clearly indicates that patients having sedentary lifestyle are more prone to develop haemorrhoids.

According to religion in group A 26 patients were hindu, 3 were muslims and 1 was Christian. In groupB 26 were hindu and 4 were muslim. This may be due to dominance of hindu population in the area chosen for the study.

2) Clinical Parameter

Considering the signs and symptoms during the treatment and subsequent follow up the data generated is subjected to appropriate statistical test i.e. Wilcoxon-matched-pair sign-rank test and Mann-Whitney test, paired t test which suggests the effect of treatment as follows:

A) PR Bleeding

In groupA mean for PR bleeding before treatment is 1.900 which became 0.5333 after treatment .Std deviation before treatment is 0.7589 which became 0.5713 after treatment, Std error is 0.1385 which became 0.1043, sum of all signed ranks is 465 z value is 4.78 p is< 0.0001 which shows drug is effective in PR bleeding. For groupB before treatment mean is 2.133, Std. deviation is 0.7303 and std error is 0.1333. after treatment mean is 1.567, std deviation is 0.6789 and std error is 0.1240, Sum of all signed ranks is 153, no of pairs is 17, z value is 3.62 and p is<0.0001 which is extremely significant hence the drug is effective in stopping PR bleeding.

For group A percentage of relief in PR bleeding is 71.93%and for groupB percentage of relief is 26.56% In group A it was observed that PR bleeding stopped completely in 15 patients during the course of treatment while in group B it stopped completely in only 2 patients which suggests the efficacy of Gud Haritaki Modak in stopping PR bleeding is more compared to Sooran Kanda powder. Also during the course of follow up it was observed that

in few patients Gud Haritaki Modak stopped the PR bleeding on first follow up but Soorana Kanda powder did not show such a fast effect. Also statistically i. e.with Man Whitney test p value for PR bleeding comes to<0.0001 which shows GroupA drug is more effective in reducing PR bleeding than group B.

B) Constipation

For constipation in groupA before treatment mean is 1.767, Std. deviation is 0.7289 and std error is 0.1329. after treatment mean is 0.5000, std deviation is 0.5724 and std error is 0.1045, Sum of all signed ranks is 465, no of pairs is 30, z value is 4.78 and p is<0.0001 which is extremely significant hence the drug is effective in constipation. Ingroup B before treatment mean is1.733, Std. deviation is0.7397 and std error is 0.1350. after treatment mean is 0.9667, std deviation is 0.6687 and std error is 0.1221, Sum of all signed ranks is 231, no of pairs is21, z value is 4.01 and p is<0.0001 which is extremely significant hence the drug is effective in constipation. Forgroup A percentage of relief for constipation is 71.7% and in groupB it is 23% In groupA it was observed that in 16 patients constipation was completely disappeared while 14 patients improved dramatically while in groupB constipation completely disappeared in 9 patients and 21 patients improved .Both the drugs were effective but again in relieving constipation Gud Haritaki Modak was more effective .Also the p value for constipation according to Man Whitney test is 0.0044 which is very significant. This may be due the fact that Haritaki is having Anulomana property and which is also used as laxative.

C) Guda Kandu(Itching)

For Itching in groupA before treatment mean is 1.900, Std. deviation is 0.7120 and std error is 0.1300. after treatment mean is 0.4667, std deviation is 0.5713 and std error is 0.1043, Sum of all signed ranks is 435, no of pairs is 30, z value is 4.47 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Guda kandu (Itching).For groupB before treatment mean is2.000, Std. deviation is 0.7878and std error is 0.1438. after treatment mean is 1.300, std deviation is 0.8367 and std error is 0.1528, Sum of all signed ranks is 210, no of pairs is 20, z value is 3.92 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Guda kandu (Itching). Percentage of relief in itching in groupA is 75.44% and in groupB is 35% Ingroup A there were 17 patients in whom itching disappeared completely but in groupB there were 5 patients in whom itching completely disappeared. This shows that Gud Haritaki is more effective in reducing Anal itching than Sooran Kanda powder. This may be due to the fact that Gud Haritaki is more effective in

reducing PR bleeding and constipation. As PR bleeding and constipation improves anal itching is also improved. Also according to Man Whitney Test p=<0.0001 which is extremely significant which proves the fact.

D) Anemia

For Anemia in groupA before treatment mean is 1.967, Std. deviation is 0.6687and std error is 0.1221. after treatment mean is 0.7667, std deviation is 0.6261 and std error is 0.1143, Sum of all signed ranks is 465, no of pairs is 30, z value is 4.78 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Anemia. In groupB before treatment mean is 1.733, Std. deviation is 0.7849and std error is 0.1433. after treatment mean is 0.7667, std deviation is 0.7279 and std error is 0.1329, Sum of all signed ranks is 351, no of pairs is 26, z value is 4.45 and p is<0.0001 which is extremely significant hence the drug is effective in reducing Anemia Percentage of relief is 61.02% for groupA and for groupB it is 55% In groupA Anemia reduced as PR bleeding reduced and was better than group B according to statistical analysis(0<0.0001)

3) Total effect of therapy

In groupA 4 patients cured25 patients improved markedly and 1 patient was improved according to accepted assessment criteria. In groupB 24 patients improved and only 6 patients showed marked improvement but no patient was cured according to accepted clinical assessment criteria. From this data it can be said that Gud Hritaki is more effective conservative mode of management than Sooran Kanda powder in 1st and 2nd degree internal haemorrhoids.

CONCLUSION

The study entitled ″A comparative clinical study of efficacy of Gud Haritaki Modak in 1st and 2nd degree internal haemorrhoids with Sooran Kanda powder.″ was undertaken. After conducting the clinical trial based on clinical parameters, results were discussed and from the study confident conclusion can be drawn as follows.

1) In 1st and 2nd degree internal haemorrhoids Gud Haritaki Modak and Sooran Kanda powder are both effective conservative treatment options.

2) Both the drugs are easily available cost effective treatment for 1st and 2nd degree internal haemorrhoids.

3) But Gud Haritaki Modak is more effective than Sooran Kanda powder in reducing symptoms associated with haemorrhoids like PR bleeding, Anemia, Itching and Constipation.

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