CLINICAL STUDY REPORT

Version: 1.0, Dated: 25th Jan 2022

"A Clinical Evaluation of Efficacy and Safety of White-free Capsule in patients suffering from leucorrhoea- An open labelled, single centre, non-comparative, interventional, prospective, clinical study."

Protocol No. WHTFREE/LEUCO/JAGT/01-2021 Version 1.0, 16th June 2021

CTRI Registration Number: CTRI/2021/07/034778

[Registered on: 12/07/2021].

Sponsor

Jagat Pharma Pvt. Ltd
No- 23 B, Stadium Rd,
Model Town, Bareilly,
Uttar Pradesh 243122

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LIST OF ABBREVIATIONS:

AE/AEs- Adverse Event(s)

AR/ARs- Adverse Reaction(s)

CRA- Clinical Research Associate

CRF/CRFs- Case Report Form(s)

GCP- Good Clinical Practice

GLP- Good Laboratory Practice

Gm- Gram

GMP- Good Manufacturing Practices

ICF- Informed Consent Form

ICMR- Indian Council of Medical Research

IEC- Institutional Ethics committee/ Independent Ethics Committee

IP- Investigational Product

OPD- Out Patient Department

PIS- Subject Information Sheet

SAE/SAEs- Serious Adverse Event(s)

SAR/SARs- Serious Adverse Reaction(s)

SPSS- Statistical Package for the Social Sciences

WMA- World medical association

1. STATEMENT OF COMPLIANCE

"A Clinical Evaluation of Efficacy and Safety of White-free Capsule in patients suffering from leucorrhoea- An open labelled, single centre, non-comparative, interventional, prospective, clinical study."

Protocol No. WHTFREE/LEUCO/JAGT/01-2021 Version 1.0, 16th June 2021

We hereby certify the authenticity of the Clinical Study Report and declare that the results are an accurate interpretation of the data; to the best of our knowledge. We also hereby provide assurance that this study was conducted in compliance to the protocol and as per applicable Good clinical Practices and Ethical Guidelines laid down by AYUSH.

Sr. No	**Sponsor/CRO**	**Represented by**	**Signature & Date**
1	**Sponsor** Jagat Pharma Pvt. Ltd No- 23 B, Stadium Rd, Model Town, Bareilly, Uttar Pradesh 243122	Dr. Mandip Basu	
2	**CRO** Target Institute of Medical Education and Research 402, A/B/C, Jaswanti Allied Business Centre, Ramchandra lane Extension, Kachpada, Malad (West), Mumbai-400064	Dr. Sanjay Tamoli	

Sr. No	**Site**	**Principal Investigator / Co-Investigator**	**Signature & Date**
1	KVTR Ayurvedic College, Boradi, Tal- Shirpur, Dist- Dhule 425428	Dr. Rahul Kumar Kamde (PI) M.D. (Ayu)	

2. EXECUTIVE SUMMARY

2.1	**Protocol Title**	A Clinical Evaluation of Efficacy and Safety of White-free Capsule in patients suffering from leucorrhoea- An open labelled, single centre, non-comparative, interventional, prospective, clinical study
2.2	**Protocol ID version & date**	WHTFREE/LEUCO/JAGT/01-2021 Version 1.0, 16th June 2021
2.3	**Study Design**	An open labelled, single centre, non-comparative, interventional, prospective, clinical study
2.4	**Duration of treatment**	Total duration of study treatment was 30 days.
2.5	**Total no of visits**	Screening visit (day 0)/baseline visit (day 0), visit 1 (day 10 ±3days), visit 2 (day 20 ±3days), visit 3 (day 30 ±3days).
2.6	**Sample Size**	There were 30 completers in the study
2.7	**Investigational Product and Dosage**	Subjects were asked to take 2 capsules of White-Free two times daily after meals with water for 30 days.
2.8	**Study Outcomes**	**Primary Outcome:** 1. Changes in symptoms associated with leucorrhoea (Itching, Foul smell, wetting of garments, Lower abdominal pain, Low back ache, Pruritus vulva, Genital ulceration, Burning micturition), Vaginal discharge and nature of discharge. (Assessment were done by providing a subject diary to patients and asking them to record symptoms on daily basis, Baseline values were compared to follow up visits values) - Symptoms were graded on a scale of 0-3 as per appendix B - Vaginal discharge was graded on a scale of 1-3 (1= scanty (small quantity of discharge, 1 or two days in a week, did not require change of undergarments), 2=moderate (moderate discharge, 3-4 days in a week, required change of undergarments once daily), 3=profuse (profuse discharge almost every day in a week, required change of undergarments

		2 to 3 times in a day) - Nature of discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3 =Curdy white, 4=Watery discharge 2. Number of days required for change in the above symptoms, discharge and nature of discharge **Secondary Outcome:** 1. Proportion of cases with complete cessation of symptoms of leucorrhoea over a period of 30 days (Complete cessation was defined as absence of any of the symptoms pertaining to Leucorrhoea) 2. Requirement of rescue medications (use of antibiotics and other medications) 3. Global assessment for overall change by subject and investigator at the end of study treatment 4. Assessment of vitals and adverse events 5. Assessment of tolerability of study drug by assessing ADRs on study completion
2.9	**Tools used for Evaluation**	**<u>Efficacy Assessment</u>** • Assessment of change in symptoms associated with Leucorrhoea on graded scale • Assessment of number of days required for change in the symptoms of leucorrhoea, discharge and nature of discharge • Assessment of proportion of cases with complete cessation of symptoms of leucorrhoea • Assessment of requirement of rescue medications (use of antibiotics and other medications) • Global assessment for overall change by subject and investigator at the end of study treatment **<u>Safety Assessment</u>** • Vital Signs

		• Clinical evaluation • Concomitant, Adverse event and Serious Adverse Event Monitoring
2.10	**Inclusion Criteria**	1. Non-pregnant, non-breastfeeding females between the ages of 18 and 55 years, (both inclusive) 2. Women agreed to practice reliable contraception [Intrauterine device (IUD), Tubal sterilization, Vasectomy in male partner. Participants who used a hormonal contraceptive as one of their birth control methods used the same method for a minimum of 3 months before the first dose of study drug. Acceptable hormonal methods (every hormonal method used with a barrier method like a condom, preferably a male condom). Oral contraceptives, Injectable progesterone, contraceptive vaginal ring. Acceptable barrier methods (used with a hormonal method) Male or female condom with or without spermicide] for 30 days following treatment 3. Presenting complaints of moderate grade Vaginal white discharge (moderate discharge, 3-4 days in a week, required change of undergarments once daily), from last 15 days 4. Not currently menstruating or expected to in the next 4 days 5. Provided written informed consent before initiation of any study procedures and available for all study visits
2.11	**Exclusion Criteria**	1. Suffering from bacterial vaginosis (Purulent discharge with fishy smell) as per Investigator's opinion 2. Women who had used prescribed medications (oral or topical antibiotics including metronidazole, clindamycin, tinidazole etc. Anti-fungal drugs including clotrimazole and ketoconazole etc.) for vaginal complaints in the past 2 weeks. 3. Active infection, active liver, kidney or autoimmune diseases, uncontrolled diabetes, hypertension, cardiac diseases.

		4. Patients with known history of hepatitis B and/ or C 5. Patients on Oral Contraceptive Pills for last one month 6. Patients with IUCD for last one month 7. Known case of venereal disease 8. History of significant per vaginal bleeding over the last 1 month 9. Prolapsed of uterus 10. Known case of malignancy of internal genital parts and known case of any malignancy 11. Allergy to any constituent of white free capsule 12. Any other condition due to which patients were deemed unsuitable by the investigator for reason(s) not specifically stated in the exclusion criteria
2.12	**Methodology**	The study was initiated after receiving IEC approval & subsequent registration of the study on CTRI website. Female subjects presenting complaints of moderate grade vaginal white discharge from last 15 days and attending OPD at site were considered for screening. On screening/ baseline visit (day 0), a written informed consent was obtained from subject for her participation in the study. Subject's physical and systemic examinations including vitals were done. Subject's medical and surgical history was taken. Subject's current medications if any were noted in the CRF. Subject's UPT was done. Subjects were recruited on meeting all the inclusion criteria. Subject's Dosha Prakriti was assessed. Subjects were given one HDPE bottle containing 60 capsules of White free (for next 10 days + additional 20 capsules if follow up was delayed up for 3 days). Subjects were asked to take 2 capsules of White-Free two times daily after meals with water. A diary card to record daily symptoms of leucorrhoea, vaginal discharge and nature of vaginal discharge was provided to subjects. Also, subjects were asked to record rescue medications (use of antibiotics and other

		medications) in the diary card. Subjects were asked to practice reliable contraception [Intrauterine device (IUD), Tubal sterilization, Vasectomy in male partner]. Participants who used a hormonal contraceptive as one of their birth control methods were asked to use the same method for a minimum of 3 months before the first dose of study drug. Acceptable hormonal methods (hormonal method was used with a barrier method like a condom, preferably a male condom) included oral contraceptives, injectable progesterone, contraceptive vaginal ring. Subjects were asked to use acceptable barrier methods (with a hormonal method) i.e. male or female condom with or without spermicide for 30 days following treatment. Subjects were advised to refrain from any modern medicine, Nutraceutical, Ayurvedic, homeopathic, Siddha, Unani etc. treatment for leucorrhoea during the entire study duration. After recruitment, subjects were asked to visit site on day 10 (Visit 1), day 20 (Visit 2), and day 30 (Visit 3). Subjects were allowed to come for follow up either 3 days prior or after the scheduled follow up visit. On every follow up visit, subject's physical and systemic examinations including vitals was done. Filled in diary card was collected from subjects and new diary card were provided to record daily symptoms of leucorrhoea, vaginal discharge and nature of vaginal discharge. Also, subjects were asked to record rescue medications in the diary card. Subjects were given one HDPE bottle containing 60 capsules of White free (for next 10 days + additional 20 capsules if subjects were delayed for follow up for 3 days). Subjects were asked to take 2 capsules of White-Free two times daily after meals with water. Compliance was assessed by asking the subjects for how many times she missed the dosage. Compliance of more than 80% for investigational drug were considered acceptable.

		On last follow up visit, tolerability of the study drug was assessed by the investigator and patient. Global assessment for overall change were done by investigator and patient (1= Excellent improvement: No symptoms of leucorrhoea at the end of the study, 2= Good Improvement: Presence of mild symptoms of leucorrhoea at the end of the study and 3 = Poor Improvement: Moderate to severe symptoms of leucorrhoea at the end of the study). All the subjects were closely monitored for any adverse events/ adverse drug reactions from baseline visit till the end of the study. Subjects were asked to stop trial medication and take investigator's advice for further treatment.
2.13	**Statistical method of assessment**	The data were analysed for central tendencies (mean, median), range, standard error and standard deviation. Data were tabulated and graphically shown using standard format and MS Excel. Statistical tests were carried out to compare the distribution (normality), Student's T test (normative), Mann-Whitney statistic (non-parametric), Chi-square statistic (categorical), ANOVA. The level of significance at $p < 0.05$ (two sided) was considered significant. Both intent-to-treat and per protocol completers analysis were performed when appropriate. Standard statistical software program was used (GraphPad InStat Version 3.6).
2.14	**Results**	A total of 34 subjects were screened for possible inclusion in the study. There were 03 screen failures as they did not meet the inclusion / exclusion criteria and therefore 31 subjects were included in study and received allocated study medicine. One subject dropped out as she refused to participate (Withdrew Consent) in the study. A total of 30 subjects were considered as completers. All the subjects who took even a single dose of the study drug were considered for safety evaluation. **Distribution of Age, Weight and BMI and laboratory parameters:** The average age of subjects was 29.40 ±6.55 years. It was observed that the average body weight and BMI of subjects was 48.79 ±7.87 kg and

		20.62 ±3.53kg/m^2 respectively. At baseline visit, the mean haemoglobin level was 9.41 ±0.94 gm %. **Assessment of Symptoms associated with Leucorrhoea at baseline:** At the baseline visit, out of 30 subjects in the study, 15 subjects reported itching for an average of 38 ± 91.64 days, 10 subjects reported foul smell for an average of 22.10 ± 68.75 days. wetting of garments for an average of 58.13 ± 73.53 days, 18 subjects reported lower abdominal pain for an average of 51.43 ± 81.93 days, while 20 subjects reported low back pain on an average of 73.07 ± 85.05 days. Nine subjects reported having pruritus vulva for a mean of 8.72 ± 16.60 days, and 13 subjects reported burning micturition for 44.10 ± 83.42 days. All the 30 subjects reported vaginal discharge (8 subjects had frothy discharge, 9 had curdy white discharge and 13 had watery discharge) for an average of 64.63 ± 78.08 days. **Prakruti wise distribution of subjects:** There were 6(20%) subjects of Vata-Pittaj prakruti. Vata-Kaphaj Prakruti was observed in 3(10%). Pitta Kaphaj Prakruti was observed in 5(16.67%). Pitta Vataj Prakruti was observed in 11(36.67%). Kapha-Pittaj Prakruti was observed in 1(3.33%) subject. 1 subject (3.33%) reported to have Kapha-Vataj Prakruti and 3 subjects (10%) were having Vataj Prakruti. **Assessment of efficacy outcomes** **a) Assessment of change in symptoms associated with leucorrhoea:** The mean score of itching at baseline was 0.73 ±0.86, which reduced to 0.53 ±0.73 and 0.46 ±0.68 (non-significant) after 10 days and 20 days respectively. The mean itching score reduced further to 0.30 ±0.46 (non-significant) at the end of the study. The mean score of foul smell at baseline was 0.40 ±0.62, which reduced to 0.26 ±0.52 (significant) and

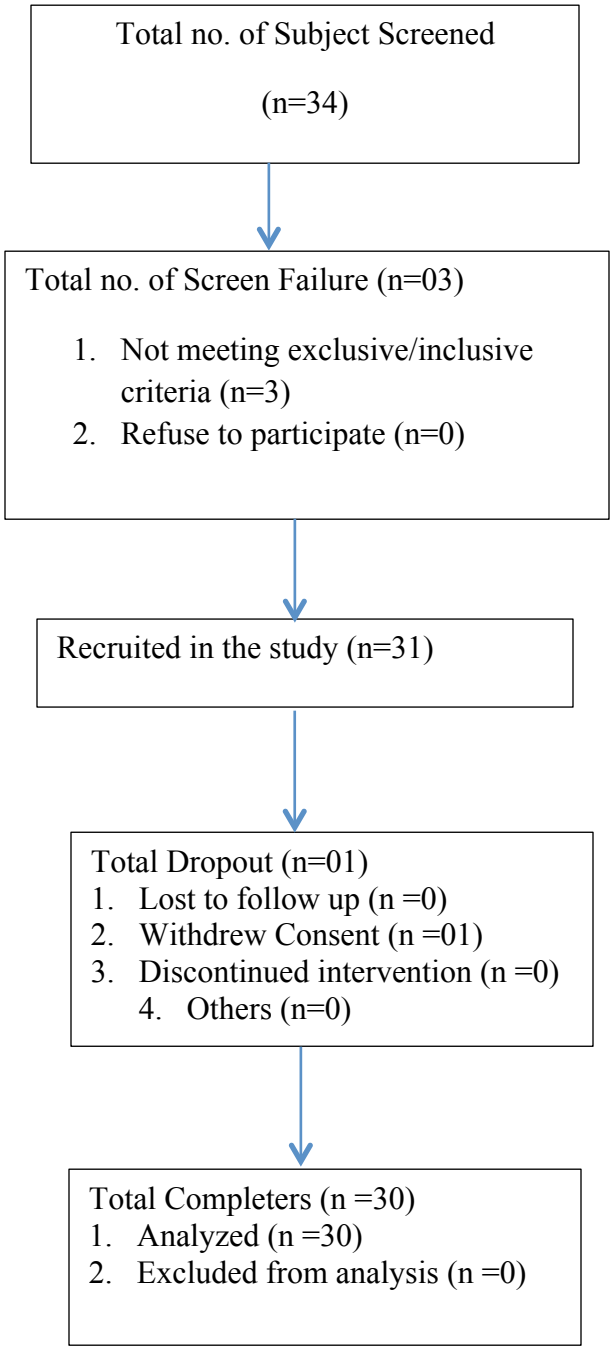
		0.10 ±0.30 (significant) after 10 days and 20 days respectively. The mean score of foul smell further reduced to 0.03 ±0.18 (significant) at the end of the study. The mean score of wetting of garments at baseline was 1.23 ±0.43, which reduced to 1.20 ±0.40 after 10 days. The mean score of wetting of garments significantly reduced to 1.10 ±0.40 and 0.70 ±0.53 at the end of 20 days and 30 days respectively. The mean score of lower abdominal pain at baseline was 0.83 ±0.79, which reduced to 0.86 ±0.81 after 10 days. The mean score of lower abdominal pain significantly reduced to 0.63 ±0.55 and 0.30 ±0.46 after 20 days and 30 days respectively. The mean score of low backache at baseline visit was 1.33 ±0.92, which reduced to 1.23 ±0.85 and 0.96 ±0.80 after 10 and 20 days respectively. The mean score of low backache significantly reduced further 0.86 ±0.68 at the end of the study. The mean score of pruritus vulva at baseline visit was 0.46 ±0.77, which reduced to 0.40 ±0.62, 0.36 ±0.61 and 0.20 ±0.40 at the end of 10 days, 20 days and 30 days respectively (non-significant). The mean score of burning micturition at baseline visit was 0.70 ±0.87, which reduced to 0.40 ±0.62 after 10 days. The mean score of burning micturition significantly reduced further to 0.16 ±0.37 and 0.03 ±0.18 at the end of 20 days and 30 days respectively. **b) Assessment of Vaginal Discharge:** At baseline visit, the mean score of vaginal discharge was 2.06 ±0.25, which reduced to 2.00 ±0.00 at the end of 10 days. The mean score of vaginal discharge significantly reduced further to 1.76 ±0.50 and 1.52 ±0.51 at the end of 20 days and 30 days respectively. **c) Assessment of nature of vaginal discharge:** Nature of vaginal discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3 =Curdy white, 4=Watery discharge. The mean score of nature of

		vaginal discharge at baseline visit was 3.16 ±0.83, which reduced to 3.13 ±0.73 at the end of 10 days. The mean score of nature of vaginal discharge improved to 3.20 ±0.66 and 3.23 ±0.62 at the end of 20 days and 30 days respectively. The change observed in nature of vaginal discharge at follow up visits was statistically non-significant. **d. Assessment of proportion of subjects and number of days required for change in the symptoms, discharge and nature of discharge:** **i) Assessment of proportion of subjects and no of days for change in symptoms:** At baseline visit, a total of 15 subjects reported itching, which was completely alleviated in 6 subjects at the end of the study while 9 subjects showed reduction in itching but still had mild itching . Ten subjects had foul smell, which was completely alleviated in 9 subjects at the end of the study while one subject reported of reduction though not complete absence of foul smell. All the 30 subjects had wetting of garments at baseline visit, which was completely alleviated in 10 subjects at the end of the study while 20 subjects showed reduction in the symptom though not completely. At baseline visit 25 subjects had lower abdominal pain, of which 9 subjects reported of complete relief while 16 subjects reported of reduction in symptom of backache at the end of the study. At baseline visit, 23 subjects reported low backache, of which 2 subjects reported of complete relief while the other 21 subjects reported of reduction in their symptom at the end of the study. Ten subjects reported pruritus vulva at baseline visit, which was completely relieved in 5 subjects while 5 subjects showed reduction at the end of the study. At baseline visit, of the 13 subjects who had burning micturition, all showed complete relief from this symptom. Further analysis for the number of days required for complete cessasation or reduction of symptom observed that the average no of days required

		for itching to subside was – days, for foul smell it as – days, for wetting of garments it was – days, for Lower abdominal pain it was – days, for low back ache it was – days, for pruritis vulva it was – days and for burning micturation it was – days. **ii) Assessment of proportion of subjects and number of days required for change in vaginal discharge:** Of all the subjects who complained of vaginal discharge at baseline visit – subjects reported of complete relief from this symptom while – subjects reported of reduction in their discharge – subjects did not show any change over 30 days of treatment. The average number of days required for complete cessasation or reduction in vaginal discharge was observed to be – days. **e) Assessment of requirement of rescue medications:** Out of 30 subjects, 6 subjects required rescue medications. Out of 6 subjects, 2 subjects took antibiotic for 3 days. 2 subjects took analgesics, one for 2 days and second for 5 days. One subject used local application of analgesic gel for backache for 3 days. **f) Global assessment for overall change assessed by subjects and investigator:** As per investigator's assessment, 16 (53.33%) subjects reported excellent improvement, 11 (36.67%) subjects reported good improvement, and 3 (10%) subjects reported poor improvement. As per subjects' assessment, 15 (50%) subjects reported excellent improvement, 12 (40%) subjects reported good improvement, while 3 (10%) subjects reported poor improvement.

		Assessment of safety outcomes: Safety assessment was performed by evaluating incidence of adverse events and further establishing their relationship with the consumption of Whitefree Capsules. It was observed that Whitefree capsules were well tolerated as there were no adverse events with the use of Whitefree capsules in a dose of 2 capsules two times a day. a. **Assessment of effect of study drug on vitals** Vital parameters like pulse rate, respiration rate, body temperature and blood pressure were tested at baseline and thereafter at all follow up visits. Pulse rate, temperature, respiratory rate and systolic and diastolic blood pressure were within normal range at all visits during the study. **b. Assessment of tolerability of study drug by assessing ADRs on study completion:** As per investigator's assessment, 29 subjects (96.67%) reported excellent overall safety and 1 subject (3.33%) reported good overall safety. As per subjects' assessment 28 cases (93.33%) reported excellent overall safety and 2 subjects (6.67%) reported good overall safety.
2.15	**Conclusion**	Thirty days of treatment with White-free capsule was significantly effective in relieving leucorrhoea and associated symptoms. White-free capsule effectively reduced vaginal discharge within one week. White-free capsule was well tolerated by all the subjects as there were no adverse reactions reported. Thus, White-free capsule is safe and effective for the treatment of Leucorrhoea.

Subject Details



* All subjects who took even a single dose of the study drug were considered for safety evaluation.

3. ETHICS:

3.1 Ethics Committee approvals:

The study was approved by Institutional Ethics Committee, KVTR College of Ayurveda, Boradi, Tal- Shirpur, Dist. - Dhule 425428 on Date 22nd June 2021**.**

3.2 Ethical conduct of the study:

The Study was initiated after approval from Institutional Ethics Committee. Study protocol was strictly followed by the site. All the study related activities were conducted under the guidance of Principal Investigator or Co Investigator. All study personals were given training on AYUSH GCP guidelines for conducting the clinical study in an ethical way. The study was conducted as per approved protocol and AYUSH GCP guidelines given by the department of AYUSH.

3.3 Subject Information and Consent:

Subjects were recruited after signing the Informed Consent Document. Consent was taken after providing complete information to the subject in a written document (Subject Information Sheet). Information was given to the subjects in the language that the subjects could read and write. Subjects were given an opportunity to ask questions and their queries were resolved. In case of illiterate subjects an impartial witness was asked to sign the consent after providing complete information. All the processes of screening/consent and recruitment were documented by the Clinical Research Coordinator in the Informed consent process document which was approved by the Principal Investigator or Co-Investigator.

4. CTRI REGISTRATIONS:

The Clinical study was registered on CTRI website with registration number: **CTRI/2021/07/034778 [Registered on: 12/07/2021].**

5. STUDY EVENTS:

Sr. No	Event	Date
1	Study was approved by IEC of KVTR Ayurvedic College, Boradi, Tal- Shirpur, Dist. - Dhule 425428.	22/06/2021
2.	CTRI registration	12/07/2021
3.	1st Subject Enrolment date	26/07/2021
4.	Last subject Enrolment date	18/10/2021
5.	Last follow up visit of last subject	16/11/2021

6. STUDY ADMINISTRATIVE STRUCTURE AND INVESTIGATOR:

1. SPONSOR:

Jagat Pharma Pvt. Ltd, No- 23 B, Stadium Rd, Model Town, Bareilly, Uttar Pradesh 243122

2. CRO:

Target Institute of Medical Education & Research,
A wing, 402, A/B/C, Jaswanti allied business Center, Ramchandra Lane Extension, Kanchpada, off link road, Malad West, Mumbai 400064

3. SITE DETAILS:

Site No.	Site Name	Principal Investigator Name
01	KVTR Ayurvedic College, Boradi, Tal- Shirpur, Dist. - Dhule 425428.	Dr. Rahul Kumar Kamde (PI) M.D. (Ayu)

7. INTRODUCTION:

Vaginal discharge serves an important housekeeping function in the female reproductive system. Fluid secreted by glands inside the vagina and cervix carries away dead cells and bacteria. It keeps the vagina clean and helps to prevent infection[1-3]. Most of the time, vaginal discharge is normal. The amount can vary, as can odour and colour (which can range from clear to a milky white), depending on the time of menstrual cycle. For example, there will be more discharge when ovulating, breastfeeding, or sexually aroused[1-3, 5]. None of above change is a cause for alarm. However, if the colour, smell, or consistency seems quite different than usual, and having vaginal itching or burning, then there will be an infection or other condition. Some amount of discharge is normal and essential for vaginal lubrication.

Leucorrhoea is the most commonly experienced condition of women of reproductive age characterized by thick, whitish, yellowish or greenish vaginal discharge. Women experiencing vaginal discharge feel very embarrassed and worried. Usually, it is a sign of just an infection though majority of the women fear and think of it as a disease[1-3]. The most common cause of leucorrhoea is physiological, followed by vaginal infections due to bacteria, virus, fungi and parasites and hormonal irregularities. Other causes include foreign bodies, cervicitis and atrophic vaginitis[1-6, 10].

Leucorrhoea can be quite an uncomfortable condition for women due to symptoms such as intense itching of the vulva, yellowish or fish-like smelly discharge, vaginal bleeding in between two menstrual cycles; and severe pain in the abdomen. This condition can be quite embarrassing if characterised by foul-smelling vaginal discharge[2,7-9,11]. Leucorrhoea can often be a pointer to various gynaecological conditions and infertility, and hence requires evaluation and treatment. Since it is caused due to various causes, treating the underlying cause will lead to the cure of the disease like the sexually transmitted infections. The treatment modalities include use of antibiotics like Metronidazole, or antifungal drugs depending on the causative organism[2,12].

White Free Capsules is an Ayurvedic Proprietary Medicine, approved by the FDA and manufactured by Jagat Pharma Pvt. Ltd. The product is available in the domestic and

international market. Ingredients of White free capsules help reduce symptoms of leucorrhoea including vaginal discharge, foul smell, itching, pruritus, and low back ache. Looking at the activities of the ingredients present in White Free capsule; a hypothesis was postulated that White Free capsule could helpful in the management of Leucorrhoea. Hence, to test this hypothesis, a clinical study titled "A Clinical Evaluation of Efficacy and Safety of White-free Capsule in patients suffering from leucorrhoea- An open labelled, single centre, non-comparative, interventional, prospective, clinical study" was conducted.

8. STUDY OBJECTIVES AND PURPOSE:

The purpose of the study was to evaluate efficacy and safety of White-free Capsule in patients suffering from leucorrhoea.

8.1 Primary objectives:

1. Assessment of changes in symptoms associated with leucorrhoea (Itching, Foul smell, wetting of garments, Lower abdominal pain, Low back ache, Pruritus vulva, Genital ulceration, Burning micturition), Vaginal discharge and nature of discharge. (Assessment were done by providing a subject diary to patients and asking them to record symptoms on daily basis, Baseline values were compared to follow up visits values)
    - Symptoms were graded on a scale of 0-3 as per appendix B
    - Vaginal discharge was graded on a scale of 1-3 (1= scanty (small quantity of discharge, 1 or two days in a week, did not require change of undergarments), 2=moderate (moderate discharge, 3-4 days in a week, required change of undergarments once daily), 3=profuse (profuse discharge almost every day in a week, required change of undergarments 2 to 3 times in a day)
    - Nature of discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3 =Curdy white, 4=Watery discharge
2. Assessment of number of days required for change in the above symptoms, discharge and nature of discharge

8.2 Secondary Objectives:

1. Assessment of proportion of cases with complete cessation of symptoms of leucorrhoea over a period of 30 days (Complete cessation was defined as absence of any of the symptoms pertaining to Leucorrhoea)
2. Assessment of requirement of rescue medications (use of antibiotics and other medications) over a period of 30 days
3. Global assessment for overall change by subject and investigator at the end of study treatment
4. Assessment of vitals and adverse events
5. Assessment of tolerability of study drug by assessing ADRs on study completion

9. TEST PRODUCT DETAILS:

9.1 Product Name: White Free Capsules

9.2 Ingredients: Each capsule contains

Sr. No.	Ingredient	Botanical Name	Quantity
1	Ashoka extract	*Saraca indica*	50 mg
2	Shatavari extract	*Asparagus racemosus*	30 mg
3	Pumkin extract	*Cucurbita pepo*	30 mg
4	Guduchi extract	*Tinospora cordifolia*	15 mg
5	Kaunchbeej extract	*Mucuna pruriens*	15 mg
6	Pergularia	*Daemia extnsa*	100 mg
7	Guggul	*Commiphora mukul*	100 mg
8	Jaiphala	*Myristica fragrans*	40 mg
9	Arushamalavar Nut	*Adhatoda vasica*	20 mg
10	Dhataki Pushpa	*Woodfordia fruticosa*	80 mg
11	Shigru Extract	*Moringa oleifera*	20 mg

9.3 Dosage: 2 capsules of White-Free two times daily after meals with water for 30 days.

10. STUDY METHODOLOGY:

10.1 Study design and Duration:

The study was an open labelled, single centre, non-comparative, interventional, prospective, clinical study. The total duration of the treatment was 30 days.

10.2 Study end points:

10.2.1 Primary Efficacy end points:

1. Changes in symptoms associated with leucorrhoea (Itching, Foul smell, wetting of garments, Lower abdominal pain, Low back ache, Pruritus vulva, Genital ulceration, Burning micturition), Vaginal discharge and nature of discharge. (Assessment were done by providing a subject diary to patients and asking them to record symptoms on daily basis, Baseline values were compared to follow up visits values)
    - Symptoms were graded on a scale of 0-3 as per appendix B
    - Vaginal discharge was graded on a scale of 1-3 (1= scanty (small quantity of discharge, 1 or two days in a week, did not require change of undergarments), 2=moderate (moderate discharge, 3-4 days in a week, required change of undergarments once daily), 3=profuse (profuse discharge almost every day in a week, required change of undergarments 2 to 3 times in a day)
    - Nature of discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3 =Curdy white, 4=Watery discharge
2. Number of days required for change in the above symptoms, discharge and nature of discharge

10.2.2 Secondary efficacy and safety end point:

1. Proportion of cases with complete cessation of symptoms of leucorrhoea over a period of 30 days (Complete cessation was defined as absence of any of the symptoms pertaining to Leucorrhoea)
2. Requirement of rescue medications (use of antibiotics and other medications) over a period of 30 days

3. Global assessment for overall change by subject and investigator at the end of study treatment
4. Assessment of vitals and adverse events
5. Assessment of tolerability of study drug by assessing ADRs on study completion

10.3. Inclusion Criteria:

Subject's meeting all of the following criteria were included in the trial-

1. Non-pregnant, non-breastfeeding females between the ages of 18 and 55 years, (both inclusive)
2. Women agreed to practice reliable contraception [Intrauterine device (IUD), Tubal sterilization, Vasectomy in male partner. Participants who used a hormonal contraceptive as one of their birth control methods used the same method for a minimum of 3 months before the first dose of study drug. Acceptable hormonal methods (every hormonal method used with a barrier method like a condom, preferably a male condom). Oral contraceptives, Injectable progesterone, contraceptive vaginal ring. Acceptable barrier methods (used with a hormonal method) Male or female condom with or without spermicide] for 30 days following treatment
3. Presenting complaints of moderate grade Vaginal white discharge (moderate discharge, 3-4 days in a week, required change of undergarments once daily), from last 15 days
4. Not currently menstruating or expected to in the next 4 days
5. Provided written informed consent before initiation of any study procedures and available for all study visits

10.4 Exclusion Criteria:

Subject's meeting any of the following criteria was excluded from the study-

1. Suffering from bacterial vaginosis (Purulent discharge with fishy smell) as per Investigator's opinion
2. Women who had used prescribed medications (oral or topical antibiotics including metronidazole, clindamycin, tinidazole etc. Anti-fungal drugs including clotrimazole and ketoconazole etc.) for vaginal complaints in the past 2 weeks.

3. Active infection, active liver, kidney or autoimmune diseases, uncontrolled diabetes, hypertension, cardiac diseases.
4. Patients with known history of hepatitis B and/ or C
5. Patients on Oral Contraceptive Pills for last one month
6. Patients with IUCD for last one month
7. Known case of venereal disease
8. History of significant per vaginal bleeding over the last 1 month
9. Prolapsed of uterus
10. Known case of malignancy of internal genital parts and known case of any malignancy
11. Allergy to any constituent of white free capsule
12. Any other condition due to which patients were deemed unsuitable by the investigator for reason(s) not specifically stated in the exclusion criteria

11. ASSESSMENT PARAMETERS:

11.1 Assessment of efficacy parameters:

11.1.1 Assessment of change in symptoms associated with Leucorrhoea

Assessment of change in symptoms associated with leucorrhoea (Itching, Foul smell, wetting of garments, Lower abdominal pain, Low back ache, Pruritus vulva, Genital ulceration, burning micturition), Vaginal discharge and nature of discharge was done by providing a subject diary to patients and asking them to record symptoms on daily basis.

A Symptoms was graded on a scale of 0-3 as per appendix B

B. Vaginal discharge was graded on a scale of 1-3 (1= scanty (small quantity of discharge, 1 or two days in a week, did not require change of undergarments), 2=moderate (moderate discharge, 3-4 days in a week, required change of undergarments once daily), 3=profuse (profuse discharge almost every day in a week, required change of undergarments 2 to 3 times in a day) and

C. Nature of discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3=Curdy white, 4=Watery discharge. Changes observed in these symptoms on day 10, day 20 and day 30 were compared to their baseline values.

11.1.2 Assessment of number of days for change in the symptoms, discharge and nature of discharge:

Assessment of change in symptoms associated with Leucorrhoea, Vaginal discharge and nature of discharge was done by providing a subject diary to patients and asking them to record symptoms on daily basis and also clinical symptoms assessment was done on every follow up visits. Number of days required for change in symptoms associated with leucorrhoea, discharge and nature of discharge were calculated and recorded in the CRF.

11.1.3 Assessment of proportion of cases with complete cessation of symptoms of leucorrhoea over a period of 30 days

Based on the findings of diary card, proportion of subjects achieving complete cessation of symptoms of leucorrhoea were noted at the end of study treatment. Complete cessation was defined as absence of any of the symptoms pertaining to leucorrhoea. Number of subjects achieving complete cessation of symptoms of leucorrhoea were recorded.

11.1.4 Assessment of requirement of rescue medications (use of antibiotics and other medications)

Requirement of rescue medications (antibiotics and other medications) use was recoded on every visit in subject's diary. Number of subjects requiring rescue medications was assessed at the end of study.

11.1.5 Global assessment for overall change by investigator and by subject at the end of the study treatment.

Investigator and Subject had rated the total change, whether or not, it was entirely due to product treatment compared to subject's condition at admission to the study and how much has she changed.

The criteria were as follow

1 = Excellent improvement: No symptoms of leucorrhoea at the end of the study

2 = Good Improvement: Presence of mild symptoms of leucorrhoea at the end of the study

3 = Poor Improvement: Moderate to severe symptoms of leucorrhoea at the end of the study

11.2 Assessment of Safety parameters:

Safety was assessed by clinical review of all safety parameters, including the following:

a. Adverse event reporting, as applicable
b. Vital signs including allergic reactions etc.
c. Assessment of overall safety and tolerability of the study product was done by the physician and subjects. The criteria for the global assessment of overall safety were as follows:

   1 = Excellent Overall safety (No adverse event/s reported)

   2 = Good Overall safety (Mild adverse events (s) reported which subside with or without medication)

   3 = Fair Overall safety (Moderate to severe adverse event(s) reported which subside with or without medication and do not necessitate stoppage of study treatment)

   4 = Poor Overall safety (Severe or serious adverse event(s) which necessitate stoppage of study.)

Safety variables were listed individually for detailed clinical review, when needed. Additional tables summarized adverse events by severity and relationship to study product as well as leading to SAEs and withdrawal of the subjects from the study.

Appendix I: Table of Assessment

Activity	**Screening Visit / Baseline Visit (Day 0)**	**Visit 1 (Day 10) +/- 3 days**	**Visit 2 (Day 20) +/- 3 days**	**Visit 3 (Day 30) +/-3 days**
Written Informed Consent	√	X	X	X
Assessment of Inclusion/ Exclusion Criteria	√	X	X	X
Demographic Data and History	√	X	X	X
General Physical & Systemic examinations	√	√	√	√
Assessment of Dosha Prakriti	√	X	X	X
Clinical Symptoms Assessment	√	√	√	√
Assessment of vaginal discharge	√	√	√	√
Assessment of nature of vaginal discharge	√	√	√	√
Assessment of rescue medications	X	√	√	√
Diary Card	√	√	√	X
UPT	√	X	X	X
Drug Dispensing and Diary Dispensing	X	√	√	X
Global assessment of overall change by investigator & Subject	X	X	X	√
Global assessment of tolerability of trial drug by investigator and subject	X	X	X	√
Safety assessment including vitals and ADR / Adverse Events	X	√	√	√
Drug Compliance	X	√	√	√
Completion signature	X	X	X	√

12 STUDY VISIT DETAILS:

12.1 Study population and pre-study screening evaluation

Written informed consent was obtained from the interested subjects prior to screening for possible inclusion in the study. During Informed consent process, they were given enough time to read the Informed Consent Form (ICF) & Subject Information Sheet (SIS) which was printed in the languages best understood by them. Subjects were given freedom to ask the questions and all questions were answered by the Investigator or by other study staff. If the subject agreed to participate in the study, a written informed consent for the same was obtained from her.

12.2 Procedures performed during study period

A) Baseline Visit (Day 0):

On baseline visit, subjects were recruited in the study on meeting all the inclusion criteria. Subject's Dosha Prakriti was assessed. Subjects were given one HDPE bottle containing 60 capsules of White free (for next 10 days + additional 20 capsules if follow up was delayed for 3 days). Subjects were asked to take 2 capsules of White-Free two times daily after meals with water. A diary card to record daily symptoms of leucorrhoea, vaginal discharge and nature of vaginal discharge was given to subjects. Also, subjects were asked to record rescue medications (use of antibiotics and other medications) in the diary card. Subject were asked to practice reliable contraception [Intrauterine device (IUD), Tubal sterilization, Vasectomy in male partner]. Participants who used a hormonal contraceptive as one of their birth control methods were asked to use the same method for a minimum of 3 months before the first dose of study drug. Acceptable hormonal methods (hormonal method was used with a barrier method like a condom, preferably a male condom) included oral contraceptives, injectable progesterone, contraceptive vaginal ring. Subjects were asked to use acceptable barrier methods (with a hormonal method) i.e. male or female condom with or without spermicide for 30 days following treatment. Subjects were advised to refrain from any modern medicine, Nutraceutical, Ayurvedic, homeopathic, Siddha, Unani etc. treatment for leucorrhoea during the entire study duration. After recruitment, subjects were asked to visit site on day 10 (Visit 1), day 20 (Visit 2),

and day 30 (Visit 3). Subjects were allowed to come for follow up either 3 days prior or after the scheduled follow up visit.

All the study subjects were closely monitored for any adverse events/ serious adverse events /adverse drug reactions. If subject had AE/SAE, the details of the incidence was documented in the source document and CRF. SAE, if any, was reported to the IEC in a SAE reporting form.

B) Follow up Visits: Visit 1 (Day 10 ± 3 days), Visit 2 (Day 20 ± 3 days):

On every follow up visit, subject's physical and systemic examinations including vitals were done. Filled in diary card was collected from subjects and new diary card was provided to record daily symptoms of leucorrhoea, vaginal discharge and nature of vaginal discharge. Also, subjects were asked to record rescue medications in the diary card. Subjects were given one HDPE bottle containing 60 capsules of White free (for next 10 days + additional 20 capsules if follow up was delayed for 3 days). Subjects were asked to take 2 capsules of White-Free two times daily after meals with water. Compliance was assessed by asking the subjects for how many times she missed the dosage. Compliance of more than 80% for investigational drug was considered acceptable.

All the study subjects were closely monitored for any adverse events/ serious adverse events /adverse drug reactions. If subject had AE/SAE, the details of the incidence were documented in the source document and CRF. SAE, if any, was reported to the IEC in a SAE reporting form. Rescue medication used, if any, were recorded. All details were recorded in the CRF.

C) Follow up Visit: Visit 3 (Day 30 ± 5 days):

On last follow up visit (i.e. day 30), subject's general and systemic examinations including vitals was done. The diary card given on last visit was collected from subject. Drug Compliance was assessed by asking the subjects for how many times subject missed the dosage. Compliance of more than 80% for investigational drug was considered acceptable.

On last follow up visit (i. e. day 30), subject's global evaluation and Investigator's global evaluation for overall change was done. Tolerability of the trial medicine was assessed by the investigator and by subject at the end of the study.

All the study subjects were closely monitored for any adverse events/ serious adverse events /adverse drug reactions. If subject had AE/SAE, the details of the incidence were documented in the source document and CRF. SAE, if any, was reported to the IEC in a SAE reporting form. Rescue medication used, if any, were recorded. All details were recorded in the CRF.

After completion of 30 days of study treatment, all the subjects were asked to stop trial medications and take advice of investigator for further treatment.

13 STUDY POPULATION

A total of 34 subjects were screened in the study of which 30 subjects were considered as completers. All cases that completed the study as per the protocol were considered as "Per Protocol Population". Also, all the cases who took at least one dose of the study drug were considered as "Safety population" and were evaluated.

14 OBSERVATIONS AND RESULTS

A total of 34 subjects were screened for possible inclusion in the study. There were 03 screen failures as they did not meet the inclusion / exclusion criteria and therefore 31 subjects were included in study and received allocated study medicine. One subject dropped out as she refused to participate (Withdrew Consent) in the study. A total of 30 subjects were considered as completers. All the subjects who took even a single dose of the study drug were considered for safety evaluation.

14.1 Assessment of Baseline Parameters:

14.1.1. Distribution of Age, Weight and BMI and laboratory parameters:

The average age of subjects was 29.40 ±6.55 years. It was observed that the average body weight and BMI of subjects was 48.79 ±7.87 kg and 20.62 ±3.53kg/m^2 respectively. At baseline

visit, the mean haemoglobin level was 9.41 ±0.94 gm %. Refer Table no. 1 for details.

14.1.2 Assessment of Symptoms associated with Leucorrhoea at baseline:

At the baseline visit, out of 30 subjects in the study, 15 subjects reported itching for an average of 38 ± 91.64 days, 10 subjects reported foul smell for an average of 22.10 ± 68.75 days. wetting of garments for an average of 58.13 ± 73.53 days, 18 subjects reported lower abdominal pain for an average of 51.43 ± 81.93 days, while 20 subjects reported low back pain on an average of 73.07 ± 85.05 days. Nine subjects reported having pruritus vulva for a mean of 8.72 ± 16.60 days, and 13 subjects reported burning micturition for 44.10 ± 83.42 days. All the 30 subjects reported vaginal discharge (8 subjects had frothy discharge, 9 had curdy white discharge and 13 had watery discharge) for an average of 64.63 ± 78.08 days. The details are presented in table 1.

Table1: Baseline Demography

Age (in Years) (n=30)	29.40 ±6.55
Weight (in Kgs) (n=30)	48.79 ±7.87
BMI (kg/m^2) (n=30)	20.62 ±3.53
HB (gm %) (N=29)	9.41 ±0.94
Itching (in days) (n=15)	38 ±91.64
Foul Smell (in days) (n=10)	22.10 ±68.75
Wetting of Garments (in days) (n=30)	58.13 ±73.53
Lower Abdominal Pain (in days) (n=18)	51.43 ±81.93
Low Back Ache (in days) (n=20)	73.07 ±85.05
Pruritus Vulva (in days) (n=9)	8.72 ±16.60
Burning Micturition (in days) (n=13)	44.10 ±83.42
Vaginal Discharge (in days) (n=30)	64.63 ±78.08

14.1.3 Prakruti wise distribution of subjects:

There were 6(20%) subjects of Vata-Pittaj prakruti. Vata-Kaphaj Prakruti was observed in 3(10%). Pitta Kaphaj Prakruti was observed in 5(16.67%). Pitta Vataj Prakruti was observed in 11(36.67%). Kapha-Pittaj Prakruti was observed in 1(3.33%) subject. 1 subject (3.33%) reported

to have Kapha-Vataj Prakruti and 3 subjects (10%) were having Vataj Prakruti. The details are presented in table 2 and graph 1

Table 2: Prakruti wise distribution of subjects

Prakruti	No. of subjects	Percentage of subjects
Vataj	3	10%
Vata Pittaj	6	20%
Pitta Kaphaj	5	16.67%
Vata Kaphaj	3	10%
Kapha Pittaj	1	3.33%
Pitta Vataj	11	36.67%
Kapha Vataj	1	3.33%
Total	30	100%

14.2. Assessment of efficacy outcomes

14.2.1 Assessment of change in symptoms associated with leucorrhoea:

The mean score of itching at baseline was 0.73 ±0.86, which reduced to 0.53 ±0.73 and 0.46 ±0.68 (non-significant) after 10 days and 20 days respectively. The mean itching score reduced further to 0.30 ±0.46 (non-significant) at the end of the study. The mean score of foul smell at baseline was 0.40 ±0.62, which reduced to 0.26 ±0.52 (significant) and 0.10 ±0.30 (significant) after 10 days and 20 days respectively. The mean score of foul smell further reduced to 0.03 ±0.18 (significant) at the end of the study. The mean score of wetting of garments at baseline was 1.23 ±0.43, which reduced to 1.20 ±0.40 after 10 days. The mean score of wetting of garments significantly reduced to 1.10 ±0.40 and 0.70 ±0.53 at the end of 20 days and 30 days respectively. The mean score of lower abdominal pain at baseline was 0.83 ±0.79, which reduced to 0.86 ±0.81 after 10 days. The mean score of lower abdominal pain significantly reduced to 0.63 ±0.55 and 0.30 ±0.46 after 20 days and 30 days respectively. The mean score of low backache at baseline visit was 1.33 ±0.92, which reduced to 1.23 ±0.85 and 0.96 ±0.80 after 10

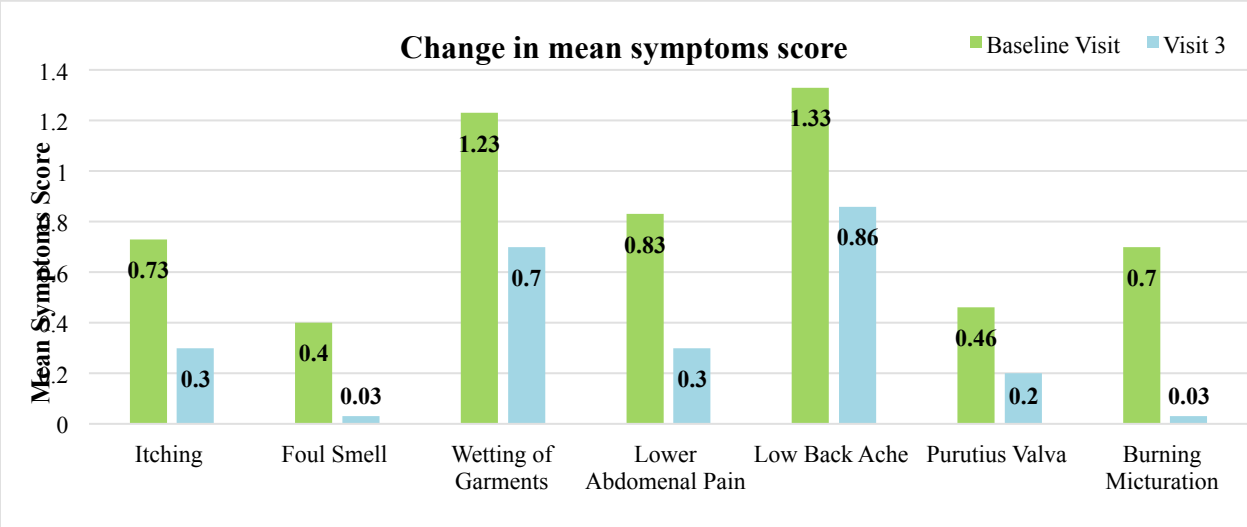
and 20 days respectively. The mean score of low backache significantly reduced further 0.86 ±0.68 at the end of the study. The mean score of pruritus vulva at baseline visit was 0.46 ±0.77, which reduced to 0.40 ±0.62, 0.36 ±0.61 and 0.20 ±0.40 at the end of 10 days, 20 days and 30 days respectively (non-significant). The mean score of burning micturition at baseline visit was 0.70 ±0.87, which reduced to 0.40 ±0.62 after 10 days. The mean score of burning micturition significantly reduced further to 0.16 ±0.37 and 0.03 ±0.18 at the end of 20 days and 30 days respectively. The details are presented in table 3.

Table 3: Assessment of change in symptoms associated with leucorrhoea:

Symptoms	Baseline Visit	Day 10	Day 20	Day 30
Itching	0.73 ±0.86	0.53 ±0.73 (NS)	0.46 ±0.68 (NS)	0.30 ±0.46 (NS)
Foul Smell	0.40 ±0.62	0.26 ±0.52 (NS)	0.10 ±0.30 (NS)	0.03 ±0.18 **
Wetting of Garments	1.23 ±0.43	1.20 ±0.40 (NS)	1.10 ±0.40*	0.70 ±0.53**
Lower abdominal Pain	0.83 ±0.79	0.86 ±0.81 (NS)	0.63 ±0.55*	0.30 ±0.46**
Low Back Ache	1.33 ±0.92	1.23 ±0.85 (NS)	0.96 ±0.80 (NS)	0.86 ±0.68*
Purutius Vulva	0.46 ±0.77	0.40 ±0.62 (NS)	0.36 ±0.61 (NS)	0.20 ±0.40 (NS)
Burning Micturition	0.70 ±0.87	0.40 ±0.62 (NS)	0.16 ±0.37**	0.03 ±0.18**

* = P-value ≤0.05, **= P-value ≤0.01, NS (Non- Significant) = P-value >0.05

Graph 2: Assessment of change in symptoms associated with leucorrhoea



14.2.2 Assessment of Vaginal Discharge:

At baseline visit, the mean score of vaginal discharge was 2.06 ±0.25, which reduced to 2.00 ±0.00 at the end of 10 days. The mean score of vaginal discharge significantly reduced further to 1.76 ±0.50 and 1.52 ±0.51 at the end of 20 days and 30 days respectively. The details are presented in table 4.

Table 4: Assessment of Vaginal Discharge:

Symptom	Baseline Visit	Day 10	Day 20	Day 30
Vaginal Discharge	2.06 ±0.25	2.00 ±0.00 (NS)	1.76 ±0.50**	1.52 ±0.51**

- = P-value ≤0.05, **= P-value ≤0.01, NS (Non- Significant) = P-value >0.05

14.2.3 Assessment of nature of vaginal discharge:

Nature of vaginal discharge was graded on scale of 1-4, 1= purulent, 2= frothy, 3 =Curdy white, 4=Watery discharge. The mean score of nature of vaginal discharge at baseline visit was 3.16 ±0.83, which reduced to 3.13 ±0.73 at the end of 10 days. The mean score of nature of vaginal discharge improved to 3.20 ±0.66 and 3.23 ±0.62 at the end of 20 days and 30 days respectively. The change observed in nature of vaginal discharge at follow up visits was statistically non-significant. The details are presented in table 5 and graph 4.

Table 5: Assessment of nature of vaginal discharge:

	Baseline Visit	Visit 1	Visit 2	Visit 3
Nature of Vaginal Discharge	3.16 ±0.83	3.13 ±0.73 (NS)	3.20 ±0.66 (NS)	3.23 ±0.62 (NS)

* = P-value ≤0.05, **= P-value ≤0.01, NS (Non- Significant) = P-value >0.05

14.2.4 Assessment of proportion of subjects and number of days required for change in the symptoms, discharge and nature of discharge:

A) Assessment of proportion of subjects and no of days for change in symptoms:

At baseline visit, a total of 15 subjects reported itching, which was completely alleviated in 6 subjects at the end of the study while 9 subjects showed reduction in itching but still had mild itching . Ten subjects had foul smell, which was completely alleviated in 9 subjects at the end of the study while one subject reported of reduction though not complete absence of foul smell.

All the 30 subjects had wetting of garments at baseline visit, which was completely alleviated in 10 subjects at the end of the study while 20 subjects showed reduction in the symptom though not completely. At baseline visit 25 subjects had lower abdominal pain, of which 9 subjects reported of complete relief while 16 subjects reported of reduction in symptom of backache at the end of the study. At baseline visit, 23 subjects reported low backache, of which 2 subjects reported of complete relief while the other 21 subjects reported of reduction in their symptom at the end of the study. Ten subjects reported pruritus vulva at baseline visit, which was completely relieved in 5 subjects while 5 subjects showed reduction at the end of the study. At baseline visit, of the 13 subjects who had burning micturition, all showed complete relief from this symptom. The details are presented in table 6.

Symptoms	No of subjects with symptom at baseline	No of subjects showing complete cessasation of symptom after 30 days	No of subjects showing reduction in symptom	No of subjects showing no change
Itching	15	6 (40%)	9 (60%)	
Foul Smell	10	9 (90%)	1 (10%)	
Wetting of Garments	30	10 (33.33%)	20 (66.66%)	
Lower Abd Pain	25	9 (36%)	16 (64%)	
Low Back Ache	23	2 (8.69%)	21 (91.30%)	
Purutius Vulva	10	5 (50%)	5 (50%)	
Burning Micturition	13	13 (100%)	0	

Further analysis for the number of days required for complete cessasation or reduction of symptom observed that the average no of days required for itching to subside was – days, for foul smell it as – days, for wetting of garments it was – days, for Lower abdominal pain it was – days, for low back ache it was – days, for pruritis vulva it was – days and for burning micturation it was – days.

B) **Assessment of proportion of subjects and number of days required for change in vaginal discharge:**

Of all the subjects who complained of vaginal discharge at baseline visit – subjects reported of complete relief from this symptom while – subjects reported of reduction in their discharge – subjects did not show any change over 30 days of treatment. The average number of days required for complete cessasation or reduction in vaginal discharge was observed to be – days.

14.2.5 Assessment of requirement of rescue medications:

Out of 30 subjects, 6 subjects required rescue medications. Out of 6 subjects, 2 subjects took antibiotic for 3 days. 2 subjects took analgesics, one for 2 days and second for 5 days. One subject used local application of analgesic gel for backache for 3 days.

14.2.6 Global assessment for overall change assessed by subjects and investigator:

As per investigator's assessment, 16 (53.33%) subjects reported excellent improvement, 11 (36.67%) subjects reported good improvement, and 3 (10%) subjects reported poor improvement. As per subjects' assessment, 15 (50%) subjects reported excellent improvement, 12 (40%) subjects reported good improvement, while 3 (10%) subjects reported poor improvement. The details are presented in table 9.

Table 9: Global assessment for overall change assessed by subjects and investigator:

Global Assessment	By Investigator	By Subjects
Excellent Improvement = 1	16 (53.33%)	15 (50%)
Good Improvement = 2	11 (36.67%)	12 (40%)
Poor Improvement = 3	3 (10%)	3 (10%)
Total	30 (100%)	30(100%)

14.3.Assessment of safety outcomes:

Safety assessment was performed by evaluating incidence of adverse events and further establishing their relationship with the consumption of Whitefree Capsules. It was observed that Whitefree capsules were well tolerated as there were no adverse events with the use of Whitefree capsules in a dose of 2 capsules two times a day.

14.3.5.1 Assessment of effect of study drug on vitals

Vital parameters like pulse rate, respiration rate, body temperature and blood pressure were tested at baseline and thereafter at all follow up visits. Pulse rate, temperature, respiratory rate and systolic and diastolic blood pressure were within normal range at all visits during the study. The details are presented in table 10.

Table 10: Assessment of effect of study drug on vitals

Vitals		Baseline Visit	Visit 1	Visit 2	Visit 3
Pulse (/Min)	Mean ±SD	75.40 ±5.22	75.40 ±4.17	75.73 ±4.69	74.50 ±4.91
	P-Value		0.9765	0.7978	0.3749
RR (/Min)	Mean ±SD	18.87 ±1.25	18.87 ±1.04	18.93 ±1.17	18.70 ±1.11
	P-Value		>0.9999	0.8582	0.7122
Temp (^{0}F)	Mean ±SD	98.02 ±0.2618	98.02 ±0.29	98.04 ±0.21	97.92 ±0.32
	P-Value		0.7562	0.7622	0.335
BP. S (mm of Hg)	Mean ±SD	110.9 ±6.55	111.5 ±3.99	111.8 ±4.90	111.3 ±4.76
	P-Value		0.692	0.3143	0.7002
BP. D (mm of Hg)	Mean ±SD	72.20 ±4.73	71.80 ±4.27	71.53 ±4.05	72.07 ±4.50
	P-Value		0.6787	0.4084	>0.9999

14.3.5.2 Assessment of tolerability of study drug by assessing ADRs on study completion:

As per investigator's assessment, 29 subjects (96.67%) reported excellent overall safety and 1 subject (3.33%) reported good overall safety. As per subjects' assessment 28 cases (93.33%) reported excellent overall safety and 2 subjects (6.67%) reported good overall safety. The details are presented in table 11.

Table 11: Tolerability of Study Drug by assessing ADRs

Safety Parameter	By Investigator	By Subjects
Excellent Overall Safety = 0	29 (96.67%)	28 (93.33%)
Good Overall Safety = 1	1 (3.33%)	2 (6.67%)
Total	30 (100%)	30(100%)

15 DISCUSSION

The present study was conducted to evaluate efficacy and safety of White-Free Capsule which is a polyherbal formulation in patients suffering from leucorrhoea. White-Free capsules were given in a dose of two times daily after meals with water for 30 days. A total of 30 subjects completed the study. The average age of subjects was 29.40 ±6.55 years.

Significant improvement was observed in symptoms of leucorrhoea like vaginal discharge, foul smell, wetting of garments, lower abdominal pain, low backache and burning micturition. The average number of days required for complete cessasation or reduction of these symptoms ranged from – to --. Only 6 subjects required rescue medication such as anti-biotic, analgesic and local analgesic gel to relieve symptoms associated with leucorrhoea. As per investigator and subjects' assessment majority of subjects reported excellent to good overall improvement in leucorrhoea.

These results indicates that White-free capsule was significantly effective in relieving symptoms of leucorrhoea. Ingredients of White-free capsule such as *Moringa* exerts antibacterial activity against both gram-positive and gram-negative bacteria[13]. It hastens uterine contraction, reduces spasm and facilitates urination. Due to astringent and haemostatic properties, *Woodfordia* is used in the management of vaginal discharge, leucorrhoea and menorrhagia[14]. It helps to reduce infection of reproductive and urinary tract in females. The flavonoids and phenolic compounds of *Woodfordia* are responsible for antimicrobial and antioxidant activities[14]. Vasa is useful in reducing leucorrhoea. it also provides relief from associated symptoms of leucorrhoea such as vaginal irritation, pain and itching[15]. Due to antimicrobial activity against *Staphylococcus aureus* and *Candida albicans*, *Myristica* might be useful in the management of vaginosis[16]. *Pergularia daemia* possesses uterine stimulant, analgesic, antipyretic, anti-inflammatory antioxidant, antibacterial, and antifungal activities[17]. *Asparagus* helps to decrease inflammation of sexual organs and normalizes uterine function[18] *Saraca indica* possesses antimicrobial, analgesic, anti-inflammatory and astringent activities[19]. The astringent activity of *Saraca* is considered to be useful in arresting excessive abnormal vaginal discharge. Also, *Saraca* exerts

antimicrobial activity in vaginal candidiasis, trichomonas and bacterial vaginosis[19-20]. These multiple activities of ingredients of White-free capsule might have synergistically worked to relieve leucorrhoea and associated symptoms.

It was evident from the results of the study that White -free capsules were well tolerated as there were no adverse drug reactions reported in any of the subjects. Vital parameters like pulse rate, respiration rate, body temperature and blood pressure were within normal range at all visits during the study. These results indicate that White-free capsules are safe to be used in patients suffering from leucorrhoea.

16. CONCLUSION:

Thirty days of treatment with White-free capsule was significantly effective in relieving leucorrhoea and associated symptoms. White-free capsule effectively reduced vaginal discharge within the first week of its use. White-free capsule was well tolerated by all the subjects as there were no adverse reactions reported. Thus, White-free capsule is safe and effective for the treatment of Leucorrhoea.

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21. ANNEXURES:

A. Subject details

B. Adverse event record

C. Statistical output