

Management of *Vandhyatwa* with *Chitrakadi Ghrutam* and *Phala Ghrutam*

Research article

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Abstract

Failure to achieve conception is *Vandhyatwa* (Infertility). The present research work is on *stree vandhyatwa* (female infertility). Clinical study conducted with *Chitrakadighrutam* oral in A group 50 patients and *Phala ghrutam* oral in B group 50 patients of *Vandhyatwa*. Efficacy of *Chitrakadi ghrutam* oral in management of *stree vandhyatwa* (female infertility) in comparison with *Phala ghrutam* is studied and assessed. Group A patients are given *Chitrakaadi ghrutam* – 10gms. oral once a day - at 6 a.m. Group B patients are given *Phala ghrutam* – 10gms. oral once a day - at 6 a.m. for 3 months. *Anupaanam* – is 100 ml luke warm water. Follow up was done for the drug once in one month. Further follow up was done once in a month for one year. Both the drugs proved to be effective in the management of the *Vandhyatwa*, but *Chitrakadi ghrutam* proved more efficacious than the *Phala ghrutam*.

Key words: *Chitrakadi ghrutam*, *Phala ghrutam*, *Stree vandhyatwa*, Menstrual cycles, Ovulation and Conception.

Introduction:

It is bless to have children with routine marital life. Otherwise the person is *Bhishajita* - means the persons who won't get children with their routine marital life are for the medication (1). SHE / STREE is the placement for a human being before entering into the world. Charakacharya emphasized the importance of the child (*Apatya*) - in the context of the *Vajikarana* for expansion of human race (2). Vitiated *yonis* (Reproductive system of woman) cannot hold *sukra* (Sperm) which leads to non occurrence of pregnancy (3).

Menstrual disorders (*Artava dosha*) and absence of gametocyte / Oocyte / Ovum (*Abeejam bhavati*) leads to non occurrence of pregnancy (*Anupa labdhi of garbha*) or infertility (4).

Without *vata*, *yonis* (reproductive system) cannot vitiate (5). *Dushita yonis* causes *vandhyatwam* (Infertility). "*apatya shoonya gouh*"- as per *Shabda kalpa Druma*. Inability to get the conception is described by the name as *apraja*, *sapraja* etc. in *Ayurvedic* literature. But etiopathology for non-occurrence of conception can be compiled from different *Ayurvedic* classics.

According to *Ayurvedic* texts defects in *rutu* (Season), *kshetra* (place or the uterus), *ambu* (Nutrients) and *beeja* (includes *shukra* and *arthava* – semen and oocyte) leads to infertility.

Involvement of *yonis dosha*, *artava (upadhatu) dosha*, *vata etc. dosha dushti* are some among those.

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Incidence:

About 10-15% of couples are infertile in India. Female infertility is about 40-50%. Male factor is about 40%. Unexplained is about 20%.

Faults in the female for infertility are as follows:

- Tubal and Peritoneal factors are 36 to 44%.
- Ovulatory factors 26 to 44%.
- Endometriosis 1 to 10%.
- Ovarian factors 30 to 40%.
- Tubal factors 40%.
- Uterine factors 10%.
- Cervical factors 5%

Of the above mentioned factors polycystic ovarian disease (PCODs) are one of the commonest causes of female infertility. Hence, the present study taken up to study the effect of Ayurvedic treatment in the management of *Vandhyatwa* (PCODs).

Aims and objectives:

To compare the efficacy of oral administration of *Chitrakadi ghrutam* and *Phala ghrutam* in management of *stree vandhyatwa* (PCODs)

Materials and methods:

1) Selection of Patients:

100 patients suffering from PCODs were identified by Symptoms like Irregular menstrual cycles, scanty menstruation, heavy bleeding during menstrual periods, Anovulatory cycles and by the investigations like ultrasound scanning. The selected patients were divided into two groups randomly consisting of 50 patients in each group.

Group A patients were given *Chitrakadi ghrutam* 10 gms orally with luke warm water once in a day at 6 A.M for 3 months.

Group B patients were given *Phala Ghrutam* 10 gms orally with luke warm water once in a day at 6 A.M for 3 months.

Inclusion criteria:

1. Age between 20 years to 35 years age.
2. Patients irrespective of cast, religion and socio economic strata.
3. Female infertility due to PCODs.

Exclusion criteria

1. Age below 20 yrs and above 35 yrs .
2. Male infertility, Tuberculosis specific in fallopian tube.
3. other conditions of infertility like Cervical polyp, Non Co-operative Patients, Endometrial polyp, Intrauterine fibroid or growth, HIV sufferers, Hepatitis B sufferers etc.

Investigations:

- Complete Blood Picture (CBP), Erythrocyte sedimentation rate (ESR), Complete Urine Examination (CUE), Fasting blood Sugar (FBS),
 - Post Lunch Blood Sugar (PLBS),
 - VDRL, HbsAG, HIV I & II, TORCH, Blood Group & Rh Typing,
 - Hystero- Salpingography (HSG),
 - Mantoux test,
 - Follicular study,
 - Post Coital test(PCT),
 - Pap smear,
 - Thyroid Function test (T3, T4, TSH) etc prior to treatment as per need.
- Semen analysis test to husband to select the patient.

Place of work: Dr. BRKR. Govt. Ayurvedic College and Hospital - Hyderabad

Ingredients of the drugs used:

The drugs used for the study were prepared as per the references from the Textual literature as follows:

Chitrakadi ghrutam (Susruta Samhitha Uttara sthana 58th ch. / 63 to 69):

The contents of the **Chitrakadi ghrutam** are as follows:

- *Chitraka* (*Plumbago Zeylanicum* - Linn.) – root bark
- *Swetha Sariva* (*Hemidesmus - indicus* R. Br.) – root
- *Bala* (*Sida Cordifolia* – Linn) – root, seed
- *Nalla Sugandhi* (*Ichno Carpus frutescens* R.) - root
- *Draksha* (*Vitis vinifera* Linn.) - Fruit, leaves
- *Indravaruni* / *Vishala* (*Citrullus Coloeognthis stard*) – fruit, root
- *Pippali* (*Piper Longun* Linn.) – fruit, root
- *Chitrphala* – *Pedda papara* (*Trichosanthes brateata*) – fruit, root
- *Madhuka* (*glycyrrhiza glabra* Linn.) - root
- *Hareetakee* (*Terminalia Chibula* Ritz.) - fruit
- *Amalaki* (*Emblica officinalis* Gaertn.) - Fruit, Seed, leaves, Root, Bark & flowers
- *Ksheera*
- *Ghrita*
- *Tavakshira* (*Curcuma angustifolia* Roxb.) – Tuber.

Phala ghrutam (Bhavaprakasa uttarakhanda Page – 1154, 1155):

The contents of the **Phala ghrutam** are as follows:

- *Manjishta* (*Rubia cordifolia* Linna.) – root
- *Madhuka* (*glycyrrhiza glabra* Linn.) – root
- *Kushtam* (*Saussuria lappa* C. B. Clark.) – root
- *Amalaki* (*Phyllanthus embelica* L.) - Fruit
- *Hareetaki* – (*Terminalia chebula* Retz.)
- *Vibheetaki* (*Terminalia bellarica* Roxb.) – fruit
- *Sharkara* (sugar)
- *Bala* (*Sida Cordifolia* Linn.) – root, seed

- *Shatavari* / *Meda dwayam* (*Asparagus racemosus* Willd.) - Tuberous roots
- *Payasya* (*Pueraria tuberosa* Dc.) - rhizome
- *Aswagandha* / *Kakoli dwayam* (*Withania somnifera* Dunal.) – root, leaf, ksharam
- *Ajamoda* (*Carum roxburghianum* Spranngue)(*Apium graveolens*) – seeds
- *Haridra* (*Curcuma longa* linn) - tuberous root
- *Daru Haridra* (*Berberis Aristata* – Roxb) - root bark, fruit
- *Priyangu* (*Callicarpa Macrophylla* Vahl.) - flowers, fruit
- *Katurhini* (*Pitrorhiza kurroa* Royle-Ex-Benth) – root
- *Kumuda* / *Uttipalam* (*Nymphaea stellata* Wiilc.) - root, flower, seed
- *Draksha* (*Vitis vinifera* Linn.) - fruit
- *Kaakolya* / *Aswagandha* – (*Withania somnifera* Dunal.) - root, leaf, ksharam
- *Chandana* (*Santalam Albam* linn.) - Oil, heartwood
- *Shatavari*- (*Asparagus racemosus* Willd.) Tuberous, roots
- *Ghrutam* (cow ghee)
- *Ksheeram*. (cow milk)]

Standardization of the drugs:

Preparation of *Ghrutaas* are subjected to test of standardization parameters at - Drug Testing Lab, Hyderabad and no objection certificates are obtained to identify authentic samples for study purpose.

Clinical Plan:

Factors of infertility are confirmed by counselling, clinical features and investigations.

A Group - 50 patients – Subjected to oral *Chitrakaadi ghrutam*.

B Group -50 patients - Subjected to oral *Phala ghrutam*.

Assessment Criteria:

Subjective parameters

1. Regularity of menstrual cycle:

- Regular – Menstruation between 28-30 days.
- Irregular – Menstruation before 28 days or after 30 days.

2. Menstrual flow:

- Scanty – below 2 pads per day for less than 3 days.
- Normal - 2 to 3 pads per a day for 3 to 5 days
- Excessive – above 3 pads per day for more than 5 days.

3. Presence of PCOD:

- If present in ultrasonography scanning.
- If not seen in ultrasonography.

4. Anovulation: Assessed through follicular study.

- Presence of ovulation

- Absence of ovulation

5. Conception: Assessed through Gravindex test

- Positive test
- Negative test

Treatment duration – 3 months.

Follow up period - Once in 1 month for oral drug.

Further follow up was planned once in one month for one year.

Anupaanam –

100 ml. luke warm water.

Statistical analysis - Statistical analysis was carried out on subjective signs and objective signs by using Chi-square test to assess the Statistical significance.

Observations and results:

Table – 1: Change in menstrual cycle before and after treatment

Menstrual cycle	Group-A		Group-B	
	B.T.	A.T.	B.T.	A.T.
Irregular	28	8	30	14
Regular	--	20	--	16
P-value	< 0.001		< 0.001	
χ^2	28.08		19.18	

Showing change in menstrual cycle in Group-a and Group-B patients

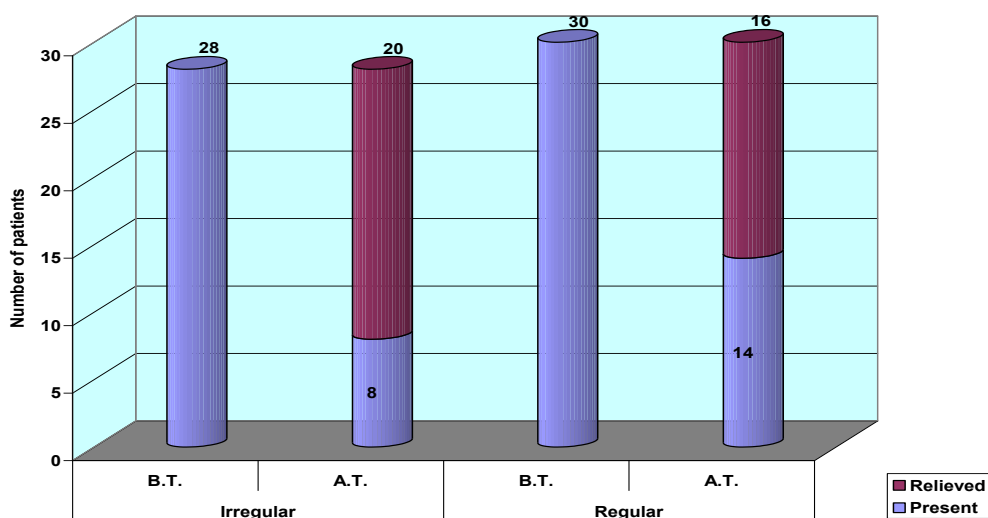


Table – 2: Showing status of menstrual flow at base-line and their relief after treatment in Group A

Group	Present in number of patients		Subsided	χ^2 -test	P < 0.05
	B.T.	A.T.			
Normal	35	35 12	12 (80.0%)	16.80	Sig.
Scanty	10	2	--	--	--
Excessive	5	1	--	--	--

Table – 3: Showing status of menstrual flow at base-line and their relief after treatment in Group B

Group	Present in number of patients		Subsided	χ^2 -test	P < 0.05
	B.T.	A.T.			
Normal	32	32 13	13 (72.2)	17.34	Sig.
Scanty	12	3	--	--	--
Excessive	6	2	--	--	--

Table – 4: Showing present of PCOD at base-line and their relief after treatment in Group A and Group B patients

Group	Present in number of patients		Subsided	χ^2 -test	P < 0.05
	B.T.	A.T.			
Group A	15	2	13 (86.7%)	19.55	Sig.
Group B	14	3	11 (78.6%)	14.97	Sig.

Showing PCOD status before and after treatment

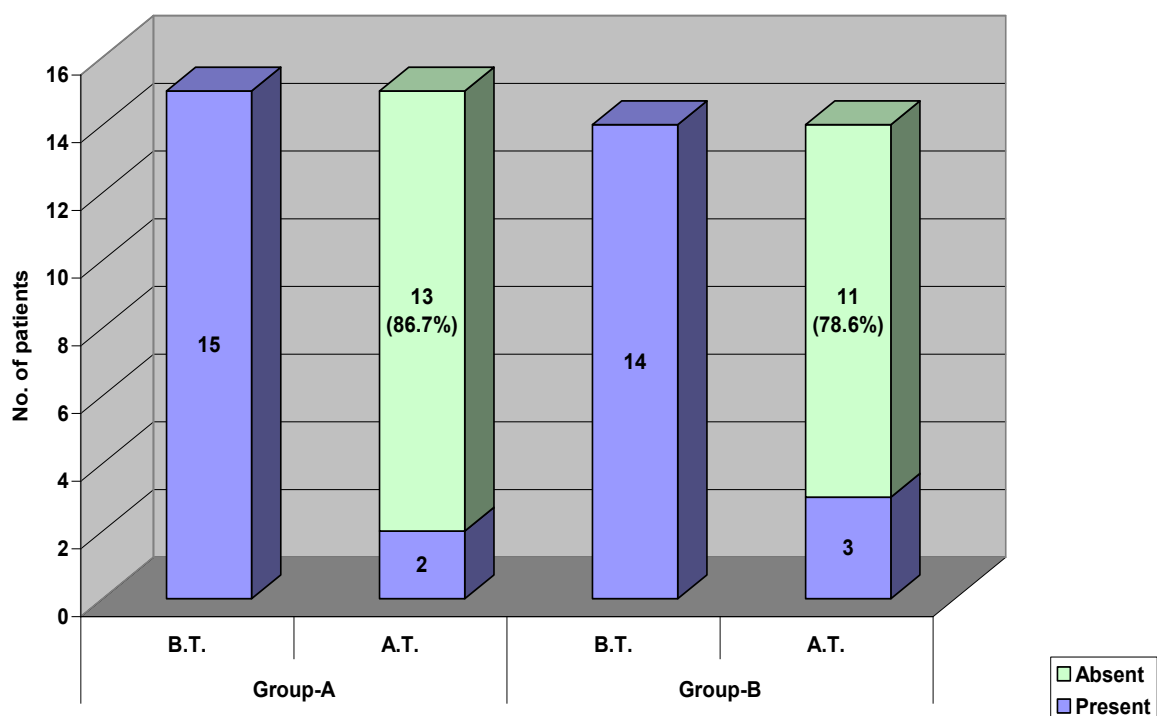


Table – 5: Change in Anovulation status before and after treatment in Group-A and Group-B by GFT.

Cycle	Group-A		Group-B	
	B.T.	A.T.	B.T.	A.T.
Anovulatory	30	8	32	14
Ovulatory	--	22	--	18
P-value	< 0.001 ($\chi^2 = 31.65$)		< 0.001 ($\chi^2 = 22.34$)	

Showing changes in ovulation status Group-A and Group-B patients

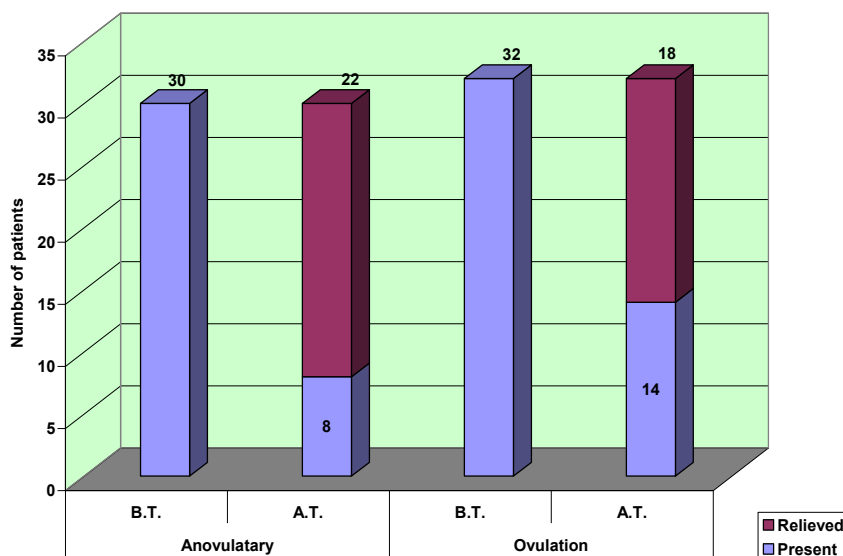
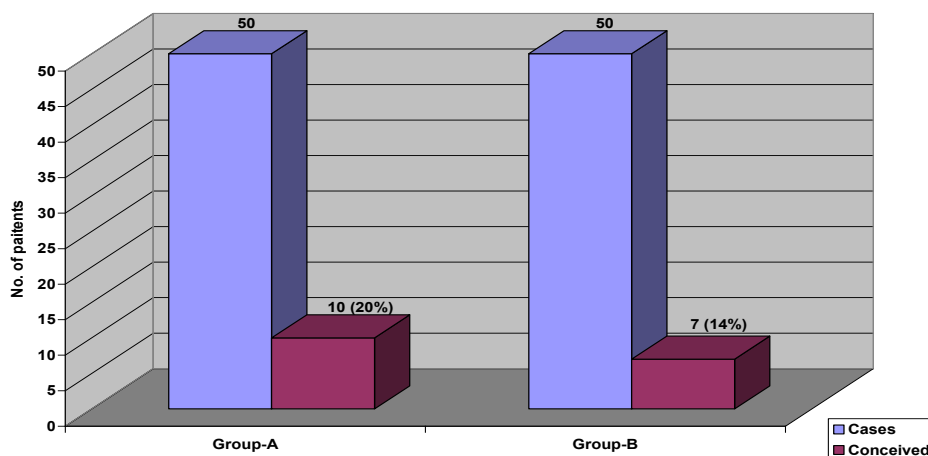


Table – 6: Number of patients conceived in Group-A and Group-B patients

Group	No. of cases	Conceived (%)	χ^2 -test	P < 0.05
Group A	50	10 (20%)	9.00	Sig.
Group B	50	7 (14%)	5.53	Sig.

Showing number of patients conceived after treatment



BT – Before Treatment; AT – After Treatment; PCOD – Poly Cystic Ovarian Disorder
USG – Ultra Sono Graphy ; GFT – Graffian Follicle Study

Discussion:

There is much etiopathology for non-occurring the pregnancy. *Yonidosha*, *Artava* or *Asruk dosha* (Irregular menstrual cycles, abnormal menstrual flow, PCOD, anovulatory cycles), are some among those. According to *Ayurveda*, *Ama* (the undigested part of food during conversion from exogenous (*sajaateeya*) to endogenous (*vijaateeya*), is responsible for all the disorders. All hormonal enzymatic disorders are considered to be *Ama janitha rogas*. Bleeding disorders are linked with hormones and Thyroid dysfunction in some patients. Scanty bleeding and heavy bleeding are some among the symptoms of PCOD (*Vandhyatwa*).

Different symptoms observed in the pathogenesis of the gynaecological disorders are as follows:

Margaavarana of *dosha* leads to loss of menstruation (8). Vitiating of *vata* and *pitta* causes scanty menstruation (9). *Pitta vardhaka*, *rasaayana*, *vrishya*, *vatahara* etc., property drugs are the remedy for *Kseena Artava* (scanty menstruation).

Excessive bleeding is the result of - *Pittaavrita Apana vayu* (10). *Deepanam*, *Graahi* are the remedy for all *apana avruta* disorders (11). The ingredients of both the preparations are having the above mentioned properties.

Cyst or tumour (*granthi*) is one among the vitiated *sroto lakshna* (12) - can be applied for PCOS. *Dushita Ama* is due to *rasaadi dhaatu janya vyaadhi* (13). Being *upadhatu* of *rasa*, *asruk / artava* also vitiates and generates the disorder and this is observed as visible bleeding is the menstruation and invisible part is considered as ovulation. All menstrual disorders, anovulatory cycles are the result of vitiated *asruk / artava*. *Deepana* drugs are helpful for the reduction of *Ama*, improve the *agni* and thereby reduce the *sroto dushti* and *dosha prakopa* (*dosha*

vitiating). Hence *Pachana*, *Grahi dravyas* are used to in these conditions.

In *sama* condition we may not be able to eliminate the *doshas* with *sodhana karma*. It is mandatory to use *Pachana dravya*. By preventing the production of *Ama* and eliminating the existing *Ama*, vitiating of *dosha* and *dhatu* can be reduced. *Vyadhiharam* (relieving the disorder) *Apatyam* (child), *Vrushataa* (vigourity), *balam* (strength), etc., result can be achieved through *Virechana* (purgative) property. The potent *srotoshodaka dravyas* as constituents of medicated *ghruta* (ghee) is use full as *amahara* and *deepana pachanakari*. Formation, maturation and rupture of the follicle together called as ovulation and will take about three months time in healthy individuals. *Vrushyadi* drugs, *prajasthapana* drugs are helpful in this process.

Rationality for using the drugs in both the groups is as follows:

In group A patients *Chitrakadi ghruta* is used and the properties of the drugs used are - *Deepana*, *Paachana* (*Chitraka*); *deepani* (*Pippali*) *Virechana* (*Draksha*, *Chitraphala*, *Indravaruni*), *Anulomana* (*Hareetaki*) *Rasayana*, *Vrushya* (*Madhuka*, *Amalaki*, *Tugusheeri*, etc.), *Brumhana*, *Jeevaneeya*, *Praja sthapana* (*Bala*, *Ghruta* etc.), *Grahi* (*Sariba*), *Rraktapittasamaka* (*Sarkara*) - (14) etc. Hence the combined effect is helpful for the reduction of the disease *Stree Vandhyatwa* with *Chitrakadi ghrutam*.

In group B patients *Phala ghrutam* is used and the properties of the drugs used are - *Sodhahara* (*Manjishta*, *Vibheetaki*, *Haridra dwayam*), *Sukrala* (*Madhuka*, *Kushta*, *Aswagandha*), *Vrishya*, *Rasayana*, *Prajasthapana* (*Sarkara*, *Bala*, *Satavari*, *Ghrutam* and *Ksheeram*), *Raktadoshahara* (*Payasya*), *Deepana* (*Ajamoda*, *Vibheetaki*), *Rechani*, *Bhedani* (*Priyangu*, *Katurohini*), *Grahi* (*Utpala*, *Kumuda*), *Vishahara* (*Chandana dwayam*), (15) etc.

The combine effect is helpful for the management of *Stree Vandhyatwa*.

A total of 100 patients are selected for the clinical study of which 50 patients are grouped as A and given *Chitrakadi ghrutam* orally and 50 patients are grouped as B and given *Phala ghrutam* oral.

Chi-square test is applied to statistically prove the efficacy of drugs.

- 20 got regular menstrual cycles of 28 patients of group A group. P-value < 0.001 ($\chi^2 = 28.08$); In 30 patients of B group 16 got regular cycles. P-value < 0.001 ($\chi^2 = 19.18$) – Highly significant.
- 10 patients are with Scanty bleeding, 5 patients are with excessive bleeding in group A. Total 12 patients became normal. P-value < 0.05 ($\chi^2 = 16.80$). 12 patients are with Scanty bleeding, 6 patients are with excessive bleeding in group B. Total 13 patients became normal. P-value < 0.05 ($\chi^2 = 17.34$). It is significant in both the groups.
- PCOD subsided in 13 patients of 15 in group A. P-value < 0.05 ($\chi^2 = 19.55$). PCOD subsided in 11 patients for 14 in group B. P-value < 0.05 ($\chi^2 = 14.97$). It is significant in both the groups.
- 22 patients are ovulated for 30 patients of A group, P-value < 0.001 ($\chi^2 = 31.65$) 18 are ovulated for 32 patients in B group, P-value < 0.001 ($\chi^2 = 22.34$). It is - Highly significant in both the groups.
- As per the Gravindex test 10 patients (20%) conceived of the 50 cases in A group. P-value < 0.05 ($\chi^2 = 9.00$). 7 patients (14%) conceived of the 50 cases in B group. P-value < 0.05 ($\chi^2 = 5.53$).

No toxic symptoms reported during treatment/research work.

No complications are observed during the treatment in both groups. About six patients of both groups have complained of belching and were treated with lukewarm water orally and got relieved.

Conclusion

Action of *Chitrakadi ghrutam* in management of *Vandhyatwa* is highly significant in comparison with *Phala ghrutam*.

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