

## TO ASSESS THE COST EFFECTIVENESS OF RAJHAPRAVARTINI VATI IN MANAGEMENT OF PCOS PATIENTS WITH REFERENCE TO THEIR OVULATION STUDY.

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**Keywords-** Rajhapravartini vati, Polycystic Ovary, Ovulation, Follicle

### **Introduction-**

Diseases pertaining to the reproductive system of the women are becoming increasingly common because of modern ways of lifestyle. Modern women are forced to face higher level of stress as they are not only home makers, but are also working women. First and foremost to show systemic abnormal functioning under increased stress is Endocrine system, which in turn affects the menstrual cycle. Thus menstrual abnormalities are becoming increasingly common among working women.

Polycystic ovarian syndrome (PCOS) is a heterogeneous disorder characterized by menstrual Irregularities, may cause infertility.

Available treatments for PCOS are quite expensive & non affordable to common people

Or may require expensive surgical intervention & duration of treatment is of long term. Management of PCOS is difficult for pt. psychologically & economically.

### **Aim of Study-**

To assess the cost effectiveness of Rajhapravartini vati in management of PCOS pt.with reference to their ovulation study.

### **Study objective-**

1. To Evaluate the costeffect of RajahpravartiniVati in the treatment of patients having PCOS.
2. To study the effect of Rajahpravartini Vati on Ovulation process in patients having PCOS  
With the help of USG for Follicular study.
3. To evaluate cost of therapy with the use of Rajahpravartini Vati in comparison with Modern management of PCOS.

### **Methodology-**

#### **1) Material & Methods**

##### **A. Raw materials required for the study was obtained and screened.**

1. *Shodhana of hingu (Ferula narthex boiss) by frying with ghrita*
2. *Shodhana of Kaseesa. by nimbu swarasa bhavana. 4*
3. *Shodhana of Tankana 3a*

##### **B. Preparation of “Rajahpravartini vati”.1**

*Shuddha Hingu, Shuddha Kaseesa, Shuddha Tankana and Kanyasara* was taken in equal quantity. All the ingredients was processed in *Kumari swarasa (Aloe vera Linn)* for 3 days and 3 ratti (375mg) weighing vati was prepared according to guide line given in Bhashajya ratnavali.

## 2) Study Methodology-

- A. Study design- Open label, single center prospective
- B. Sample size -50
- C. Study duration-12 Month.
- D. Study site-SSAM&H NASHIK.
- E. Method
- F. Drug was prepared as per Ayurvedic guidelines.

### Selection of Patients as followed Criteria

#### Inclusion Criteria:-

- Patient willing to give voluntarily free written informed consent
- Female patient having age group between 18yrs to 35yrs.
- Patient diagnosed with known case of PCOS.
- Patient having anovulatory cycle diagnosed by USG.
- Patient having Dysmenorrhoea.

#### Exclusion Criteria:-

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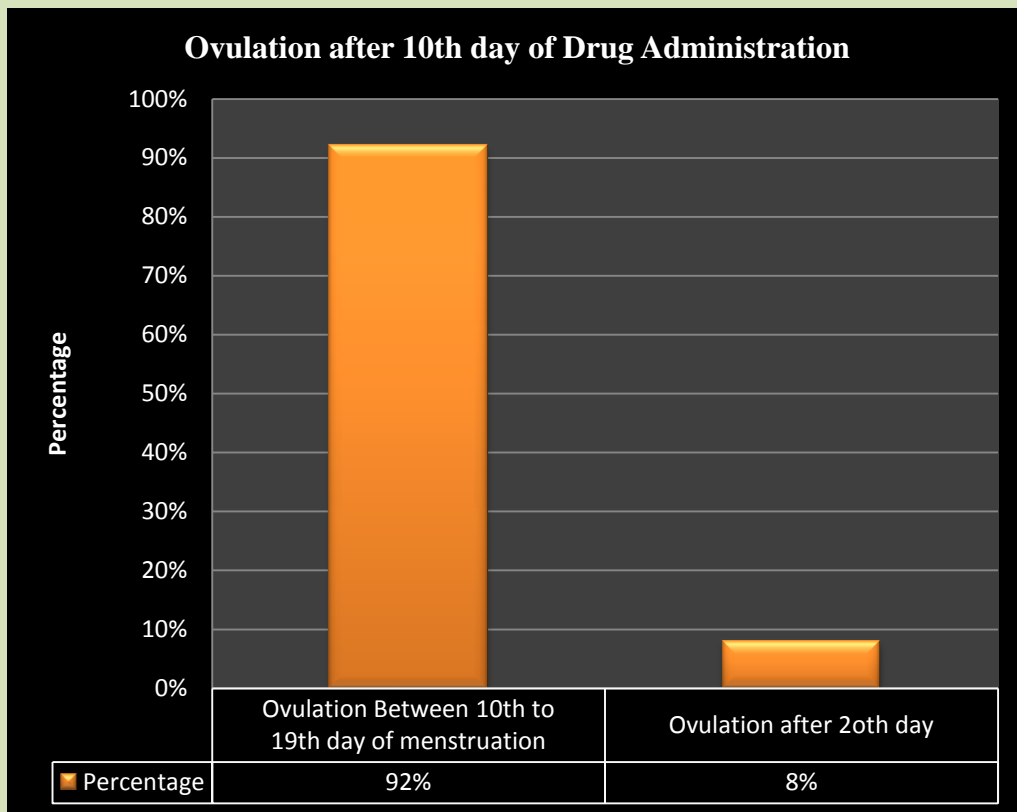
- Hypersensitivity or idiosyncratic reaction to any drugs or herbal products.
- Congenital deformities of reproductive system.
- History of allergic condition.
- History of autoimmune disorder r.g. systemic lupus erythematosus, Haemolytic anemia, RA
- History of psychiatric disorders
- Intake of any medication within 14<sup>th</sup> day before start of the study
- Subjects who are scheduled to undergo hospitalization for surgery during the study period
- Presence of clinically significant abnormal laboratory results during screening
- Pregnancy or breast feeding
- Females of child bearing age potential not using medically accepted contraceptive measures as judged by investigator
- Use of any reactional drugs or history of drug addiction
- Patient not willing to give informed consent.

In 25 Pts drug administered orally on 10<sup>th</sup> day of After Menstruation cycle

In 25 pts. Drug administered orally after 18mm follicular size

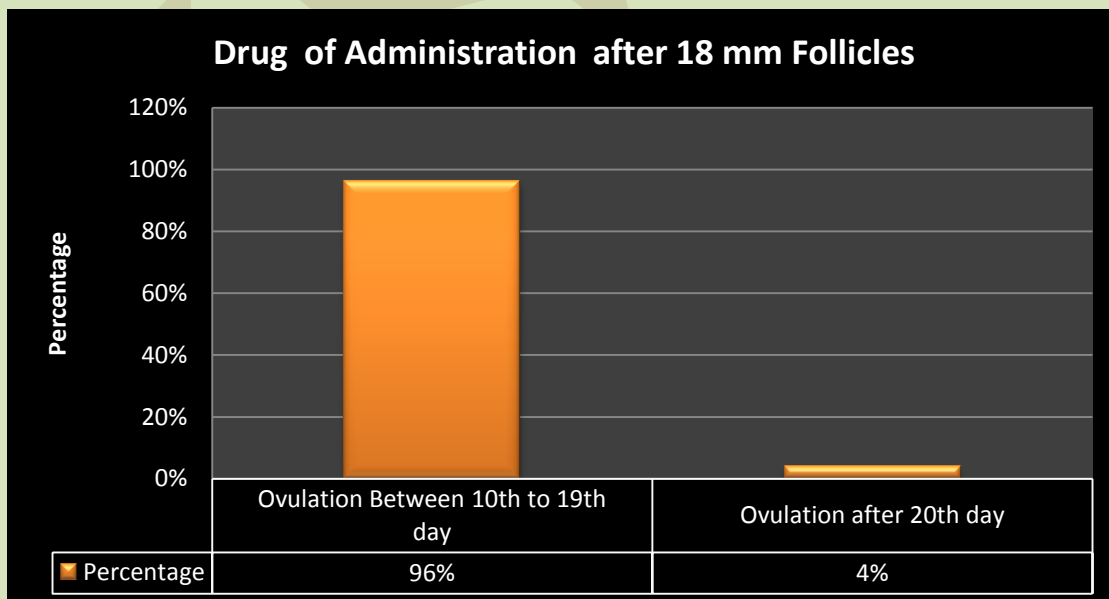
### Observation & Result

Table 1.1 -From 10<sup>th</sup> day of menses



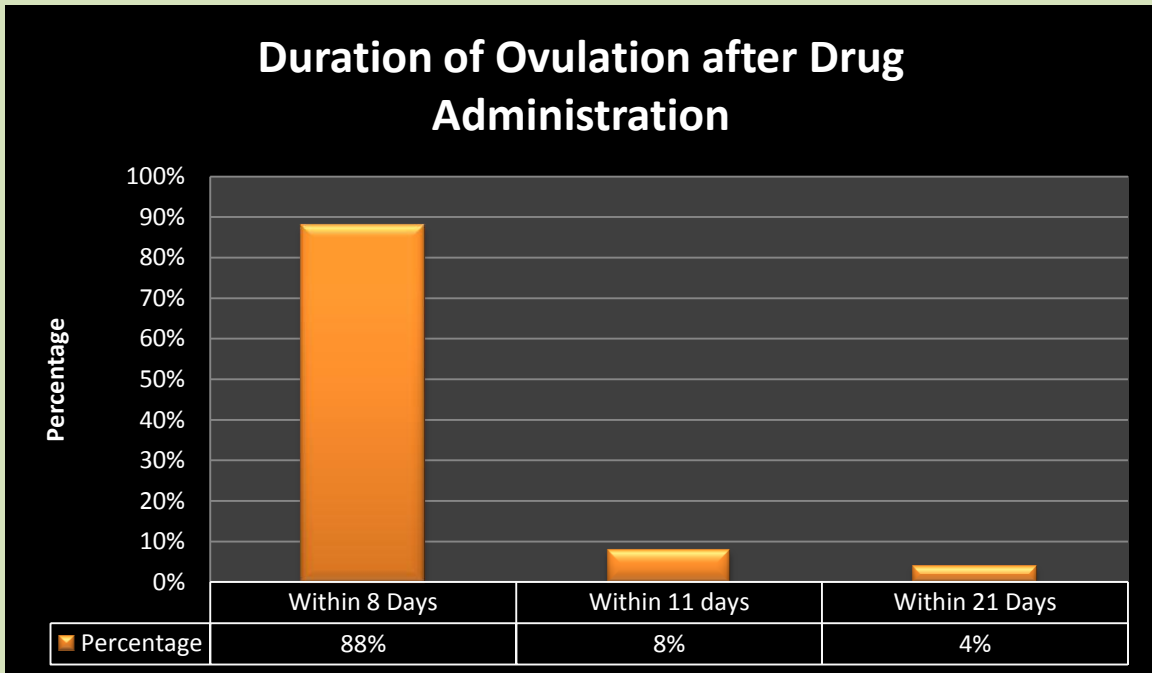
First group of 25 pt. was treated with the drug from 10<sup>th</sup> day of cycle ,  
 23 pt. shows Ovulation in between 10<sup>th</sup> to 19<sup>th</sup> day(92%)  
 2pt. shows ovulation after 20<sup>th</sup> day(9%)

**Table 1.2 -After 18 mm Follicles**



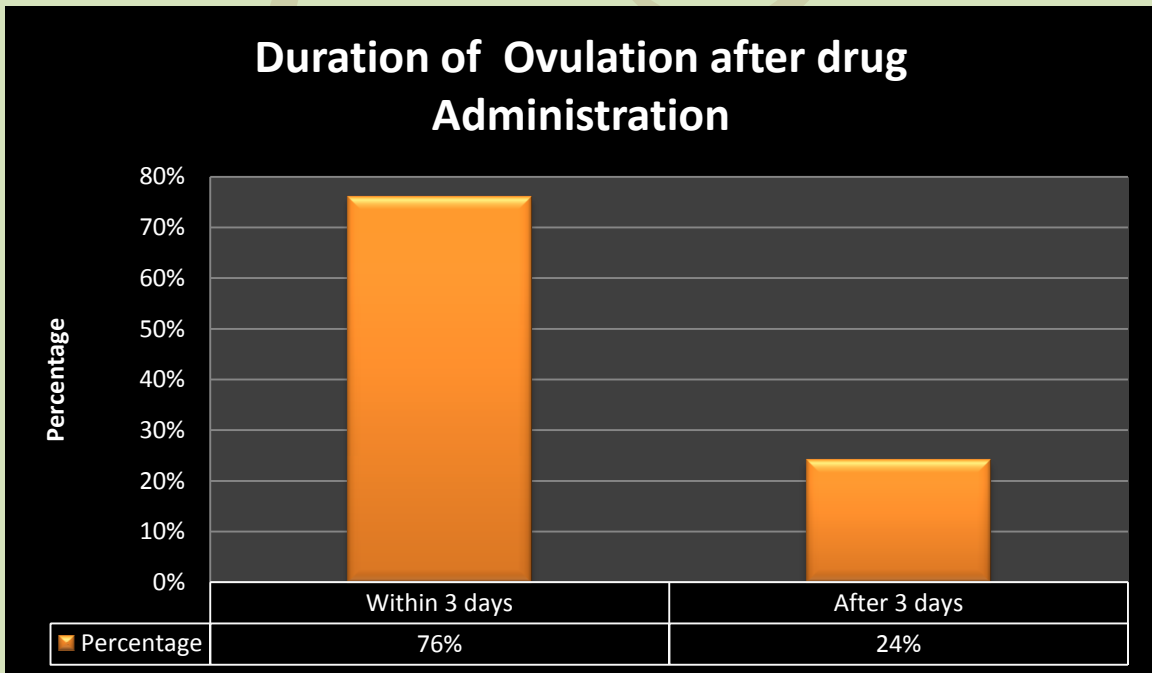
Second Group of 25 pt. which was treated after the follicular size become 18mm,  
 24pt.Shows ovulation (96%).  
 1pt. having ovulation after 21th day(4%)

Table 2.1 From 10<sup>th</sup> day of menses



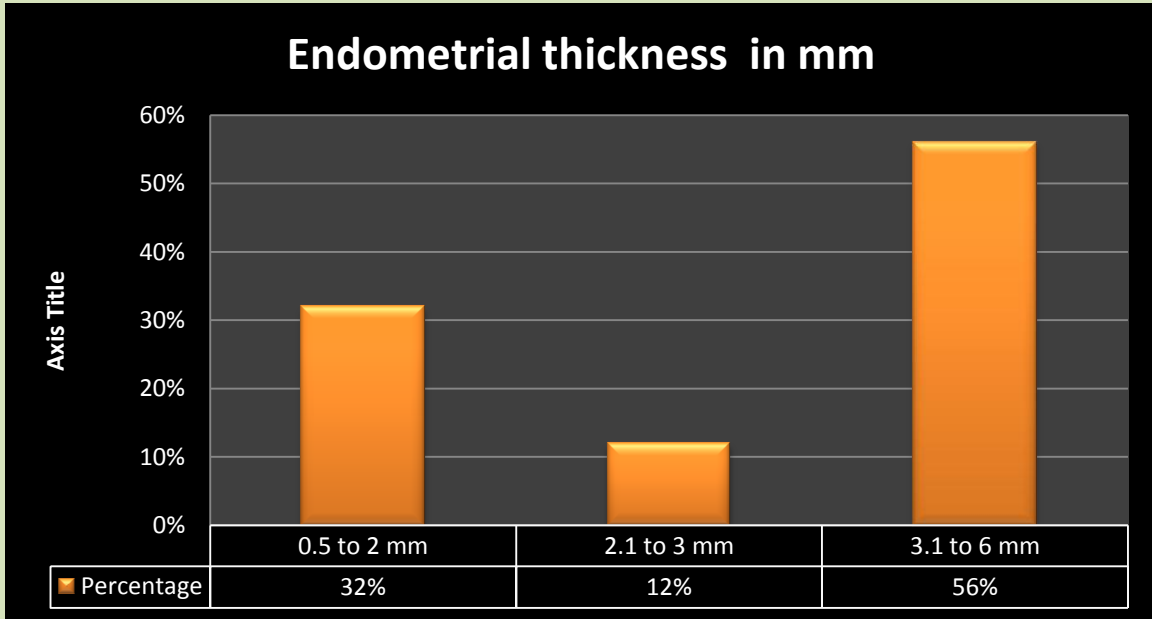
In first group after drug administration 22pt.(88%)ovulate within 8 days.  
2pt.(8%) after 11<sup>th</sup> day  
1 pt.(4%)reported no change up to 21th day.

Table 2.2 -After 18 mm Follicles



In second group within 3 days 19pt.(76%)ovulate after 3days  
6pt. (24%)ovulate after 3 days

**Table3.1 -From 10<sup>th</sup> day of menses**

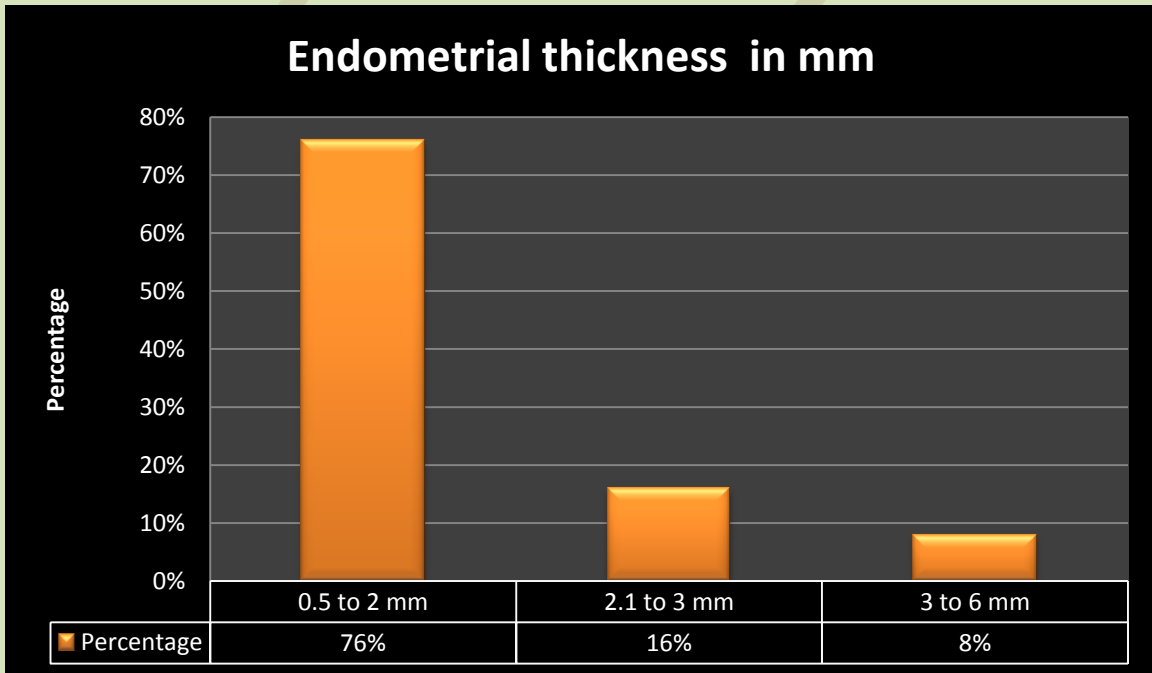


In first group endometrium growth 0.5 to 2mm 8pt.(32%)

2.1 to 3 mm in 3 pt.(12%)

3.1 to 6 mm in 14 pt.(56%).

**Table3.2 -After 18 mm Follicles**

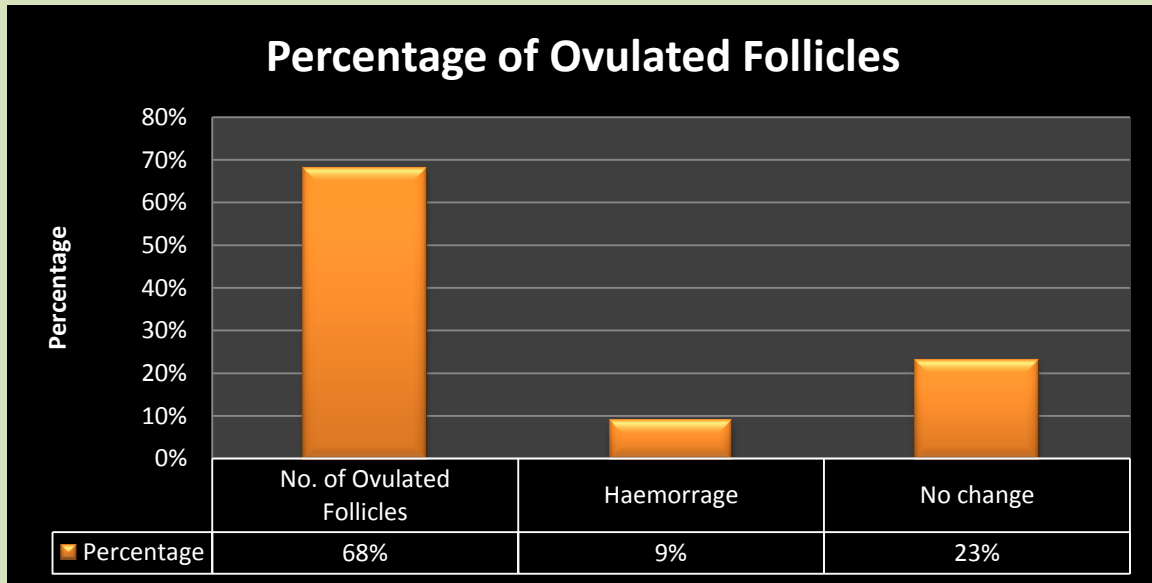


In second group growth 0.5 to 2mm in 19pt.(76%)

2.1 to 3mm in 4 pt.(16%)

3 to 6 mm in 2pt.(8%)

**Table 4.1 -From 10<sup>th</sup> day of menses**



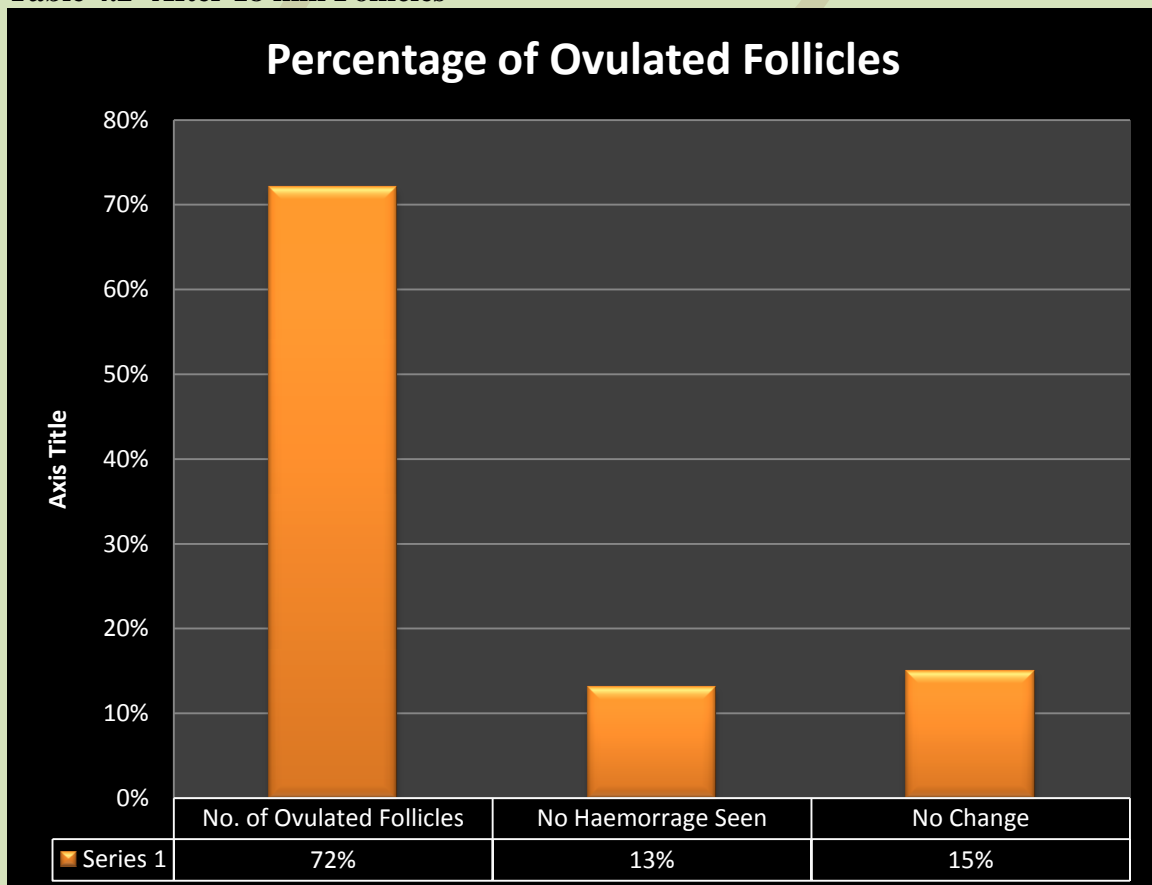
Patients treated with drugs on 10<sup>th</sup> day there USG reports shows 35 total follicles

24 Follicles undergoes ovulation satisfactory 68%

3 Follicles shows haemorrhage 9%

8 Follicles shows no change 23%

**Table 4.2 -After 18 mm Follicles**



Patient treated with drug after 18 mm of follicles USG report shows total 72 follicles out of which 52 follicles undergoes ovulation highly satisfactory 72%

9 follicles resulted in haemorrhage 13 %

11 follicle reported no change 15%

### Discussion

- First group of 25 pt. was treated with the drug from 10<sup>th</sup> day of cycle ,23 pt. shows ovulation in between 10<sup>th</sup> to 19<sup>th</sup> day(92%) & 2pt. shows ovulation after 20<sup>th</sup> Day(8%). Group second of 25 pt. which was treated after the follicular size become 18mm,24pt. Shows ovulation between 10<sup>th</sup> to 19<sup>th</sup> day (96%).1pt. having ovulation after 21th day(4%)
- In first group after drug administration 22pt.(88%)ovulate within 8 days.2pt.(8%) after 11<sup>th</sup> day&1 pt.(4%)reported no change up to 21th day.In second group within 3 days 19pt.(76%)ovulate after 3days6pt.(24%)ovulate.
- Endometrial thickness ....In first group growth 0.5 to2mm in 8pt.(32%)2.1 to 3 mm in 3 pt.(12%) & 3to6 mm in 14 pt.(56%). In second group growth 0.5 to 2mm in 19pt.(76%) 2.1 to 3mm in 4 pt.(16%)&3 to 6 mm in 2pt.(8%)
- Maximum 10 days 1BD total cost is Rs. 10/- per month .( for 3 month Rs.30/-)

### ➤ Conclusion-

Cost of modern line of treatment & Rajah pravertini vati is as follow

PURPOSE	DRUG	COST FOR 3 MONTH
<b>TO TRIGGER OVULATION</b>	i. Tab. Fertyl50 mg ii. INJ. HCG5000IU	120Rs/- 1350Rs/-
<b>PCOS TREATMENT</b>	i. Tab. Krimson 35 ii. Tab. Overl-I iii. Tab. Metformin 500mg	705Rs/- 192Rs/- 225Rs/-
<b>TO WITHDRAWL</b>	i. Tab. Primolute-N ii. Tab. Deviry 10mg	183Rs/- 165Rs/-
<b>PCOD DRILLING</b>	i. SURGICAL INTERVENTION	15000 TO 20000Rs/-
<b>Study of Drug</b>	i. RAJAH PRAVARTINI VATI	30Rs/-

➤ **Result-**

- Observation shows that the drug rajahpravartini vati is cost effective to trigger ovulation.
- In the management of pcos ovulation in normal duration.
- Rajahpravartini vati successfully works on ovulation in turn to reduce the rate of infertility
- Minimum hemorrhagic cyst or hemorrhage
- Avoid formation of cyst.

➤ **Previous Work-**

- Dr.Mikhi (1995) A preparation of kumari ghana kalpa and its clinical evaluation by comparing its efficacy with rajpravartini vati Jamnagar.
- Dr.Kotbagi (1998) To study efficacy of rajpravartini vati in rajorodha Pune.
- Dr.Lambat Varsha (2003) Rajpravartini vati nirmana clinical evaluation in krichartava Nagpur.
- Dr.Janapapiya (2003) An anyalysis and comparative study of jyotishmatiyadi yoga and rajpravartinivati in Rajaka yoni vyapad Kerala.
- Dr.Manisha Nagnath Khandade (2004) Comparative study of effect of an indigeneous compound & Rajahpravartini vati in ksjinarthava dusti Udupi.
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