

PREVALENCE OF VANDHAYTVA (FEMALE INFERTILITY) W.S.R. TO ANOVULATORY FACTOR IN *STHULA SHARIRA* AND *KRUSHA SHARIRA* PATIENTS - A CROSS SECTIONAL SURVEY STUDY

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ABSTRACT

Introduction: Female infertility is a global health issue in the current era. Due to Unwholesome Nutritional, Psychological, Social and Environmental factors there are continuously increasing incidence of Infertility over the World. Anovulation is probably the major cause of female infertility which inevitably disrupts a woman's chances to conceive and affects personal as well as social life of a female. Survey is the way by which one can present the classical facts and directives in more practical manner to the current society. **Objective:** To find out the prevalence of Anovulatory factor among 110 patients (Age 20-40 yrs.) with Female Infertility, its etiological, aggravating factors in *Sthula* and *Krusha Sharira* patients and to assess its preventive measures in patients attending OPD & IPD of PTSR, IPGT&RA, GAU, Jamnagar. **Method:** Cross - sectional survey study. **Result:** 63.64% patients were having Primary Infertility while 17.27% of Patients had Secondary Infertility and remaining Patients (19.09%) were observed with Repeated Abortion. 61.60% of patients had 2-5 years chronicity. 31.82% patients were presented with Irregular menses. 61.82% of patients had been suffering from Dysmenorrhea. 63.64% of patients were found Nulligravida. Excess intake of *Amla-Katu Rasa Pradhana- Ahara* and *Ushna-Laghu Gana Pradhana Ahara* were consumed regularly by Patients of this study. Etiological factors like *Adhyashana* in 63.64% and *Vishamashana* 43.64% were observed. 44.55% and 83.64% Patients had history of *Ratrijagarana* and *Divaswapna* respectively. 54.55% of Patients were found stressful. 40% of Patients were *Sthula Sharira* (Obese) while 11.82% of Patients were *Krusha Sharira* (Thin). **Conclusion:** Quantitative empirical measures and qualitative data have shown that Prevalence of Female infertility w.s.r. to Anovulatory Factor found 67.70% in this study. As compared to *Krusha Sharira* Patients, Prevalence of Anovulation was found more in *Sthula Sharira* Patients.

Keywords: Female Infertility, Anovulation, Survey Study, *Sthula* and *Krusha Sharira*, Prevalence

INTRODUCTION

Female infertility is a global health issue in the current era. Infertility is Defined as a 'Diseases of the reproductive system' and is the inability of Sexually

Active, Non-Contracepting Couple to achieve pregnancy in one year (World Health Organization). Infertility is worldwide problem affecting people of all

communities, though the cause and magnitude may vary with geographical location and socioeconomic status. It is estimated that globally 60-80 million couples suffer from infertility every year, of which between 15-20 million are in India alone (G. Sudha, 2013)¹.

The World Population Prospect (2017) Revision report has estimated fertility rate of India. Fertility Rate is 2.3 in 2015-20. By 2025-30, the rate will decrease further to 2.1, touching 1.86 from 2045-50. Considering the current population statistics of India this would extrapolate to a humongous burden to the society.

Numerous medical conditions can contribute to infertility. In fact, most cases of infertility are due to other medical conditions. These disorders can damage the fallopian tubes, interfere with ovulation, or cause hormonal complications. Some of the main medical conditions associated with infertility are Polycystic ovaries syndrome (PCOS) is usually a hereditary problem and accounts for up to 90% of cases of an ovulation (Barbier, 2001)². PCOS is associated with insulin resistance and it has directly correlated with obesity (Dahlgren et al., 1992)³ Hormonal anomalies that affect ovulation include hyperthyroidism, hypothyroidism, and hyperprolactinemia (Legro, 2007).⁴

Ovulatory Dysfunction comprises 40% among Causes for Female Infertility Factors. Anovulation is probably the major cause of female infertility which inevitably disrupts a woman's chances to conceive and affects personal as well as social life of a female. Although there are no dietary or nutritional cures for infertility, a healthy lifestyle is important for avoid infertility. Some Ovulatory problems may be reversible by changing behavioral patterns. Evidence suggests an association between an individual's weight and disorders of ovulation. In women, early onset of obesity favors the development of menses irregularities, chronic oligo-anovulation and infertility in the adult age. Maintain a healthy weight is important because who are either over or underweight are at risk for fertility failure, including a lower chance for achieving success with fertility

procedures. Moderate and regular exercise is essential for good health.

With this background, the present study is designed to find out prevalence of *Vandhyatva* (female infertility) w.s.r. To Anovulatory factors in *Sthula Sharira* and *Krusha Sharira* Patients by considering samples in the extent of infertility in IPGT & RA, GAU, Jamnagar.

Materials and Method:

In a cross - sectional study 110 Patients attending OPD and IPD of Prasutitantra evum Streeroga (PTSR), Institute for Post-Graduation Teaching & Research (IPGT&RA), Gujarat Ayurved University (GAU), Jamnagar. Fulfilling the criteria of infertility based on history According to Ayurveda and Investigation were registered in 2019-20. Data was collected by Research Scholar. Infertile women between 20-40 Years Age group were included all women who experiencing primary or secondary infertility. This study was undertaken with the approval of the Ethical Committee of the Gujarat Ayurved University, Jamnagar. A validated questionnaire has been administered to collect the data pertaining to the period of infertility, education, occupation, Weight, Height, Etiological factors (*Aharaja*, *Vihaaraja*, *Manasika*), Menstrual History, Obstetrical History, lifestyles besides anthropometric measurements and clinical investigations. The purpose and overview of the study was explained at the time of the interview, and interviewees were informed that their participation was entirely voluntary, their anonymity would be assured and the information that they will be providing would be used solely for the purposes of the study. They were also told that the researcher would assume responsibility for the safe-keeping of the data, and that they could request deletion of their data at any point. The results thus achieved have been critically analyzed and presented.

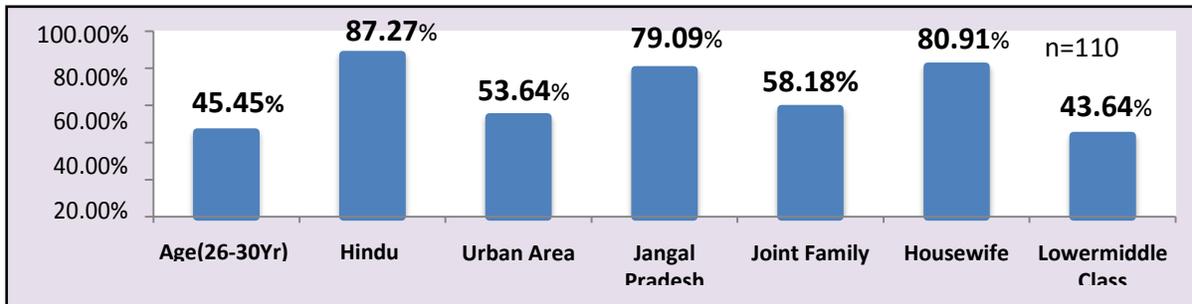
RESULT AND DISCUSSION

A total of 110 infertile females were studied and the sample is arranged according to period of infertility,

education, occupation, Weight, Height, Etiological factors (Aharaja, Viharaja, Manasika), Menstrual History, Obstetrical History, lifestyles besides an-

thropometric measurements and clinical investigations.

Table 1: Showing General Observation:



45.45 % patients were under the age group of 26-30 years. Based on our results, age is one factor affecting the quality of life. Khyata et al. reported that aging caused a reduction of the quality of life in infertile women⁵. Total 87.27% of patients were from Hindu community. 53.64% Patients came from Urban Area. Majority of patients (80.91%) were housewives. They were not conscious about timing of food, proper sleep, exercise and other healthy lifestyles and unaware of early medical consultancy also. One case control study revealed that sedentary behavior in women is associated with idiopathic infertility.⁶58.18% patients were living in joint family, which caused imbalanced in emotional status of the

woman of the new generation. Infertility counseling services have been recommended and/or mandated by medical professional organizations, most often in conjunction with specific medical treatments. 79.09%, of Patients came from *Jangala Pradeshha*, which suggest *Vata-Pitta* Dominance.⁷ 63.64%, 17.27% and 19.09% patients were observed with Primary Infertility, Secondary Infertility and history of repeated Abortion respectively. 61.60% of patients had 2-5 years chronicity; it shows early preference to Ayurvedic Treatment due to harmful effects of Allopathic drugs. 35.20% of patients had 6-10 yrs. chronicity while remaining 24.20% patients had >10 yr chronicity.

Table 2: Type of Infertility wise Distribution:

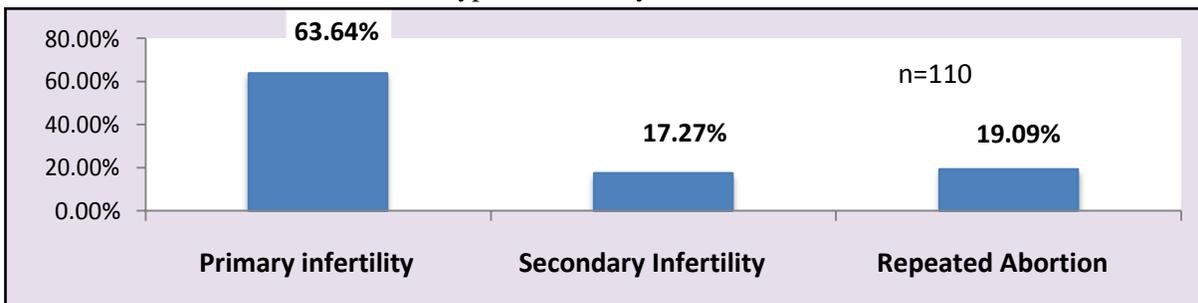


Table 3: Showing Chronicity of Diseases:

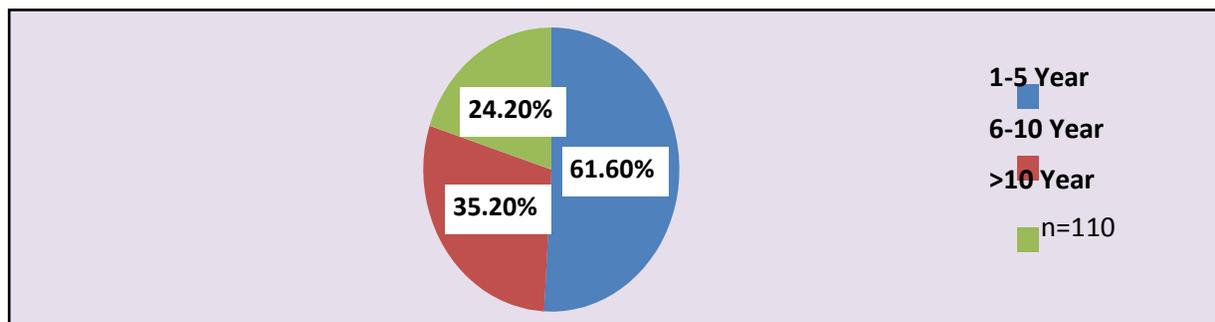
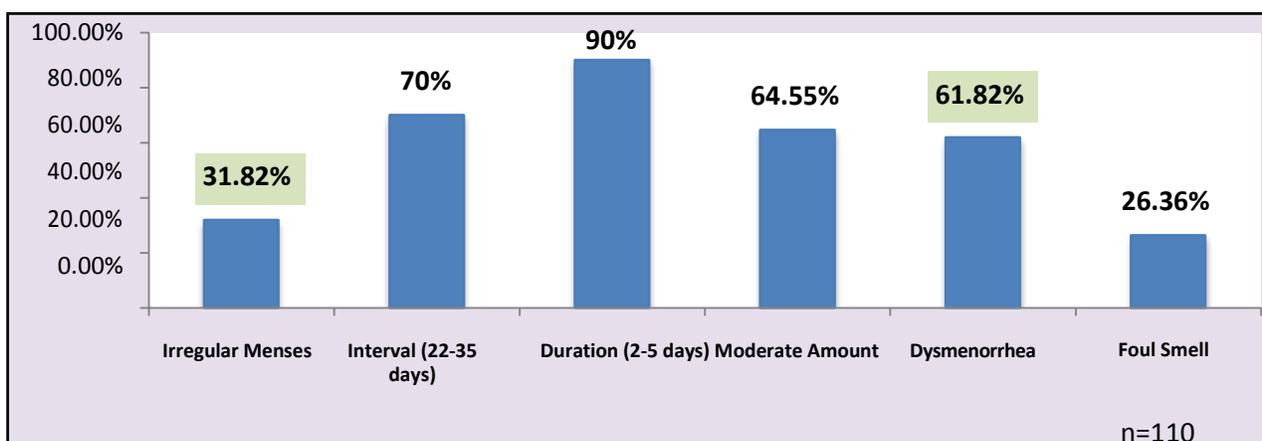


Table 4: Menstrual History



31.82% patients were observed with history of Irregular menses. Cycle regularity makes it easier for a couple to achieve conception and irregularity may be a sign of predisposition to fetal problem. 61.82% patients had history of Dysmenorrhea suggesting any pelvic pathology. 70%, 90% and 64.55% patients were observed with Normal Menstrual Interval, Duration and Moderate Amount of menstruation respectively. Foul Smell was found with 26.36% of

patients.

63.64% of patients were Nulligravida. According to World Health Organization estimate the overall prevalence of primary infertility in India is between 3.9 to 16.8%. (Survey Study,2004). 63.64% of patients were found Nulligravida. Parity was achieved in 17% Patients only and Abortion has been experienced by 20.73% of patients.

Table 5: Obstetric History

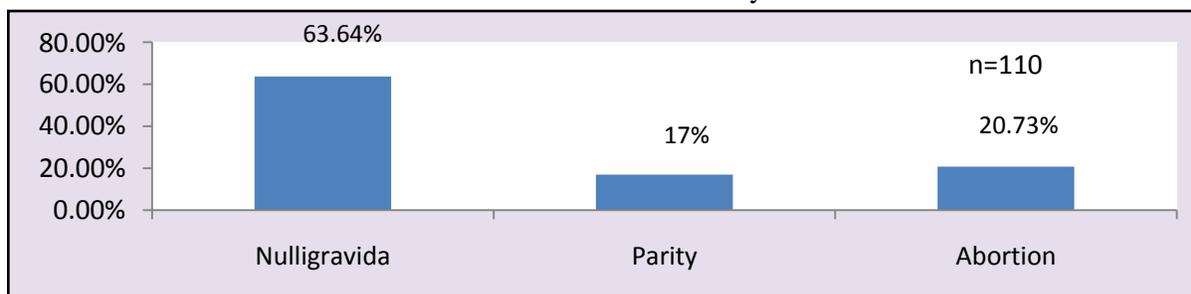
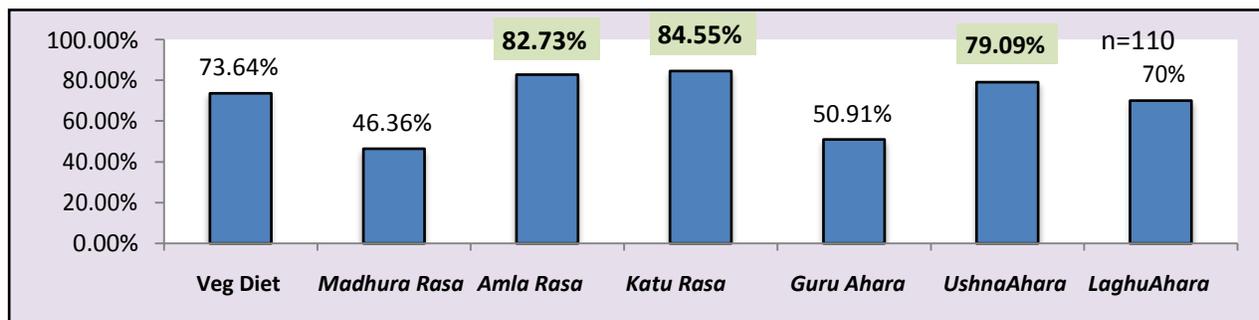


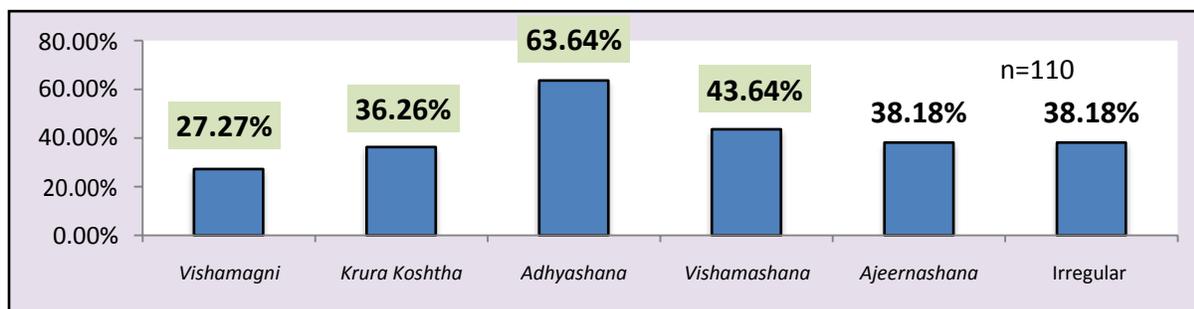
Table 6: Etiological Factor (Aharaja)



Amla-Katurasa Pradhana-Ahara and Ushna-Laghugana Pradhana Ahara were consumed regularly by Patients of this study. Faulty food habits are also prime cause of Anovulation in present era; fe-

males are more interested in spicy, fermented and junk food, which cannot give proper nutrition to the body and lack of nutrition direct affects H-P-O axis, which cause gynecological disorders & infertility.⁸

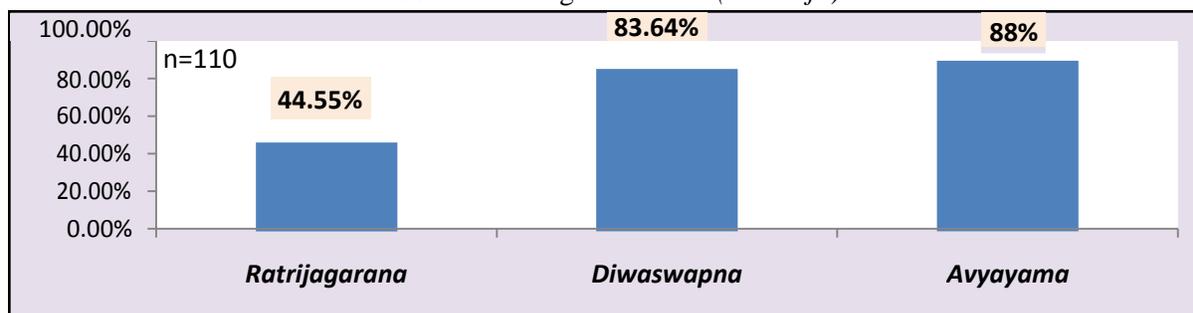
Table 7: Etiological Factor (Agni, Koshtha And Dietary Habits)



27.27% of patients had Vishamagni. Krura Koshtha was found in 36.26% Patients. 63.64% Patients were doing Adhyashana and 43.64% of Patients were doing Vishamashana. Amla Rasa Pradhana diet is one of the causes for Artava Dushti. Further Ati Katu Rasa Sevana causes Dosha Prakopaka and ArtavaDushtikara Nidana. Ati Madhura Rasa Sevana

causes Kapha Prakopa. This data again suggests the pattern of vitiation of Dosha results into Anovulation. Vishamagni directly supports the vitiation of Vata, while Mandagni suggests the vitiation of Kapha. It shows that Vata-Kapha dominance in infertility which may cause Anovulation.

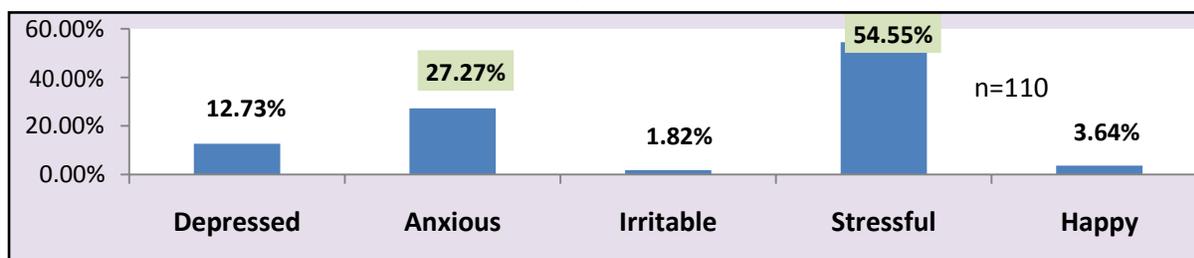
Table 8: Etiological Factors (Viharaja)



Ratrijagarana was observed in 44.55% Patients. Altered Sleep Duration and/or sleep continuity disturbance may interfere with reproduction or results in further increased HPA activation.⁹ 83.64% Patients were doing Divaswapna regularly. One survey study was revealed that although

menstruating women are likely to show increased disturbance during the luteal phase, those with other, more severe PMS are more likely to experience luteal increase in daytime sleepiness.¹⁰ 88% of Patients were not doing any kind of exercise.

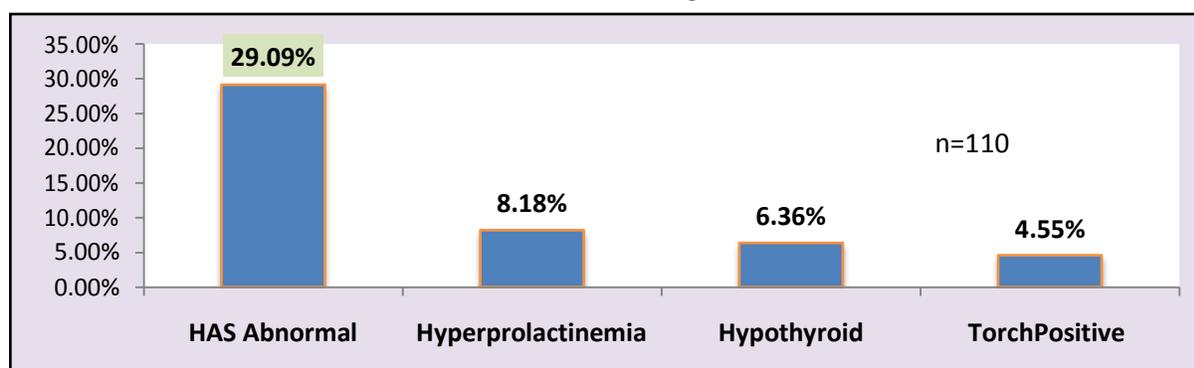
Table 9: Etiological Factors (Manasika)



54.55%, 27.27%, 12.73% and 1.82% of Patients were observed Stressful, Anxious, Depressed and Irritable respectively. The modern research reveals that stress increasing works especially late in the

night, disturb the normal hormones regulation and it decrease the LH secretion, which ultimately leads to Anovulation.¹¹

Table 10: Other Etiological Factors



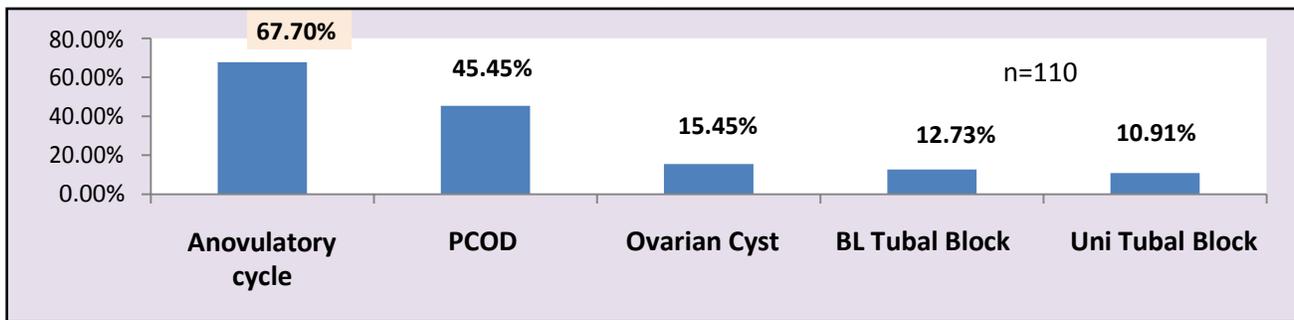
Abnormal Husband Semen Analysis was observed in 29.09% of Patients. While 8.18%, 6.36% and 4.55% of patients were having

Hyperprolactinemia, hypothyroid and Torch Positive cases respectively.

Table 11: Built and BMI:



Table 12: Diagnostic Results:



Total 74 Patients were having Anovulatory Cycles in Present Study. Among them, 13 patients have *Krusha Sharira*, 17 patients have *Madhyama Sharira* and total 44 patients have *Sthula Sharira*. 40% Patients were *Sthula Sharira* while 11.82% of patients were *Krusha Sharira*. 67.70% patients were diagnosed with Anovulation. PCOD was found in 45.45% of Patients. 12.73% patients were seen with Bilateral Tubal Blockage. 22.80% *Krusha Sharira* patients were found with Anovulatory cycle and 77.19% of *Sthula Sharira* patients were Found with Anovulatory cycle. Excess body fat may cause alteration in androgen and estrogen metabolism which in turn affect the Hypothalamic-pituitary-ovarian axis leading to ovarian dysfunction.¹²

CONCLUSION

Maintaining a healthy lifestyle, getting regular check-ups with the doctor and maintenance of normal body weight can avoid fertility problems. The medical and socio-economic support of infertile women is important requirements for resolving the problem. Quantitative empirical measures and qualitative data have shown that Prevalence of Female infertility WSR to Anovulatory Factor found 67.70% in this study. As compared to *Krusha Sharira* Patients, Prevalence of Anovulation was found more in *Sthula Sharira* Patients.

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