



Research Article

FEMALE INFERTILITY: A CROSS-SECTIONAL SURVEY ON THE CLINICAL AND REPRODUCTIVE PROFILE OF WOMEN IN UDAIPUR, RAJASTHAN

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ABSTRACT

Infertility (*Vandhyatva*) is one of the commonest presenting complaints among reproductive-age women attending gynaecology and Ayurveda outpatient departments. A structured description of the clinical and menstrual profile of affected women helps in planning both diagnostic work-up and management. **Objective:** To describe the demographic, menstrual, and reproductive-history profile of women presenting with infertility at Madan Mohan Malviya Government Ayurved College, Udaipur. **Materials and Methods:** A cross-sectional, questionnaire-based survey was conducted among women with primary or secondary infertility at the P.G. Department of Prasuti Tantra Evum Stree Roga, Udaipur, over July–November 2025. A structured proforma covering menstrual, reproductive, and medical/surgical history was administered. Data from 100 patients with complete records were analysed descriptively. **Results:** Mean age was 30.9 ± 4.8 years (range 22–42). Primary infertility was seen in 52 (52.0%) and secondary infertility in 48 (48.0%). Irregular menstrual cycles were reported by 36 (36.0%), recent weight change by 23 (23.0%), pelvic infection by 19 (19.0%), prior infertility evaluation by 22 (22.0%), pelvic surgery/laparoscopy by 9 (9.0%), and dyspareunia by 11 (11.0%). **Conclusion:** Primary infertility was marginally more common than secondary infertility, and over a third of women had irregular cycles. Structured menstrual and reproductive history-taking is a useful, low-cost first step in evaluating infertility.

INTRODUCTION

Infertility, defined as the inability to conceive after twelve months or more of regular unprotected intercourse ^[1], affects a substantial proportion of couples of reproductive age and carries considerable psychological, social, and economic burden, particularly in Indian settings where childbearing continues to be closely tied to social status and marital stability ^[2].

Infertility is broadly classified as primary (no prior conception) or secondary (infertility following at least one prior conception, irrespective of its outcome) ^[3].

Male factor infertility also contributes significantly to couple infertility and is increasingly recognised in the literature^[4], though the present survey focuses specifically on the female clinical and reproductive profile. Menstrual irregularity, prior pelvic infection, and prior pelvic surgery are recognised contributors to female-factor infertility and are readily identified through a structured history ^[5].

Ayurvedic Perspective

In Ayurvedic classical literature, infertility is described under the term *Vandhyatva*, and is discussed as one among the twenty *Yonivyapads* (disorders of the female reproductive system) in the *Chikitsa Sthana* of the *Charak Samhita*^[7]. Classical texts describe four essential factors for conception- *Ritu* (fertile period), *Kshetra* (healthy reproductive tract), *Ambu* (nourishment, correlated with *Rasa Dhātu*), and *Beeja* (healthy ovum and sperm)- collectively known as the *Ritu-Kshetra-Ambu-Beeja Siddhanta*^[6,8] as described in the *Sharir Sthana* of both the *Charak Samhita* and the

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Sushruta Samhita. Vitiating of *Artava* (the menstrual factor, broadly correlated with the ovum and menstrual blood) is described as *Artava Dushti* or *Artava Vyapad*, and is considered a key causative factor in *Vandhyatva* when any of these four factors is deranged. This classical framework provides a useful lens for interpreting the menstrual and clinical findings of the present survey, as discussed further under results and discussion.

This survey was undertaken as a departmental academic initiative to document the demographic and clinical profile of women presenting with infertility at this centre, and to serve as a baseline for subsequent, more detailed hormonal, imaging-based, and Ayurveda-correlated case-control or cross-sectional work.

MATERIALS AND METHODS

Study Design and Setting

A cross-sectional, questionnaire-based observational survey was conducted at the P.G. Department of Prasuti Tantra Evum Stree Roga, Madan Mohan Malviya Government Ayurved College and Hospital, Udaipur (Rajasthan).

Inclusion and Exclusion Criteria

Inclusion criteria: (i) Married women aged 20–45 years; (ii) history of primary or secondary infertility of at least twelve months' duration despite regular unprotected intercourse; (iii) willingness to give written informed consent.

Exclusion criteria: (i) Confirmed male-factor-only infertility on partner's semen analysis with a normal female work-up already documented; (ii) known congenital anomaly of the female reproductive tract diagnosed prior to enrolment; (iii) current pregnancy; (iv) unwillingness to participate or to complete the questionnaire in full.

Participants and Procedure

Women meeting the above criteria were enrolled after obtaining informed consent. A structured, pre-designed questionnaire was administered by the PG Scholar to each patient at first

presentation, covering age at menarche, menstrual cycle regularity and length, dysmenorrhoea, duration of attempted conception, partner's semen analysis status, obstetric history, dyspareunia, history of tuberculosis, recent weight change, history of pelvic infection, prior infertility evaluation, current medication use, history of pelvic surgery/laparoscopy, and relevant family history, consistent with a standard diagnostic evaluation framework for female infertility^[5].

This report presents the completed analysis of 100 patients with complete questionnaire records, enrolled consecutively between July 2025 and November 2025.

Statistical Analysis

Data collected on the structured proforma were entered into a spreadsheet and cross-checked for completeness before analysis. Continuous variables (age) are summarised as mean±standard deviation, minimum, and maximum. Categorical variables (type of infertility, menstrual cycle pattern, and clinical findings) are summarised as absolute frequencies and percentages, calculated with the total number of complete records (N=100) as the denominator. As this survey was designed to describe the clinical and reproductive profile of the study population rather than to compare outcomes between predefined groups, descriptive statistics were considered appropriate and no inferential hypothesis testing (e.g., Chi-square test) was performed; this is planned for the subsequent correlative phase of the work in which hormonal and imaging parameters will be analysed against the clinical profile reported here.

RESULTS AND DISCUSSION

Age Distribution

The mean age of the 100 participants was 30.9±4.8 years, with individual ages ranging from 22 to 42 years, reflecting the expected concentration of presentations in the late twenties and early thirties (Table 1).

Table 1: Descriptive Statistics of Age Among Study Participants (N=100)

Parameter	Value
Number of patients (N)	100
Mean age (years)	30.9
Standard deviation (± years)	4.8
Minimum age (years)	22
Maximum age (years)	42

Type of Infertility

Of the 100 patients, 52 (52.0%) had never conceived (primary infertility), while 48 (48.0%) reported at least one prior pregnancy- live birth, miscarriage, or induced abortion- and were therefore classified as secondary infertility (Table 2, Fig. 1).

Table 2: Distribution of Type of Infertility Among Study Participants (N=100)

Type of Infertility	Frequency (n)	Percentage (%)
Primary infertility	52	52.0
Secondary infertility	48	48.0
Total	100	100.0

Distribution of Primary vs Secondary Infertility (N=100)

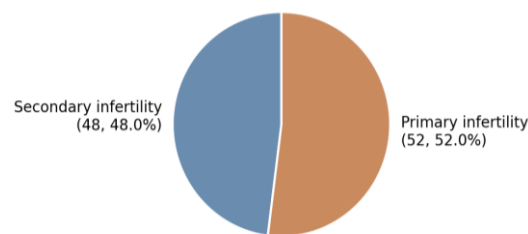


Fig. 1: Distribution of primary versus secondary infertility (N=100)

Menstrual and Clinical Profile

Table 3 and Figure 2 summarise the menstrual cycle pattern and selected clinical findings among the study population.

Table 3: Menstrual Pattern and Selected Clinical Findings Among Study Participants (N=100)

Clinical Parameter	Frequency (n)	Percentage (%)
Regular menstrual cycle	64	64.0
Irregular menstrual cycle	36	36.0
Recent weight change (gain/loss)	23	23.0
History of pelvic infection (treated)	19	19.0
Prior evaluation for infertility	22	22.0
History of pelvic surgery / laparoscopy	9	9.0
Dyspareunia (pain with intercourse)	11	11.0

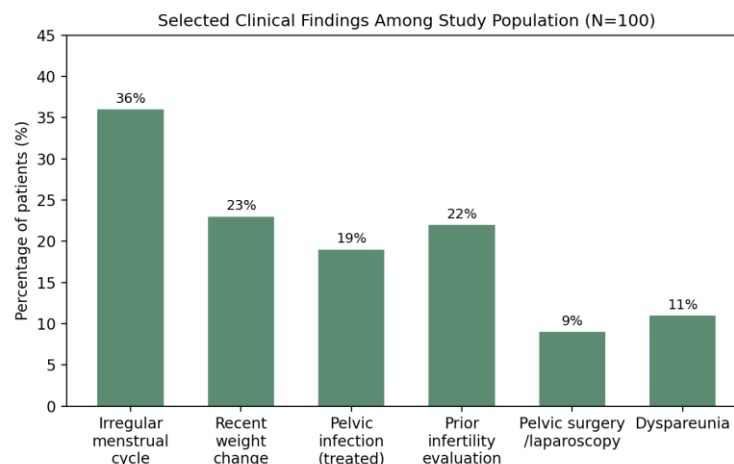


Fig. 2: Selected clinical findings among the study population (N=100)

DISCUSSION

In this completed cohort of 100 women presenting with infertility, primary infertility (52.0%) was slightly more common than secondary infertility (48.0%). This near-even split is consistent with several Indian hospital-based series in which both categories form a substantial share of the caseload, with secondary infertility often attributable to post-partum or post-abortion tubal or pelvic pathology, and primary infertility reflecting a mix of ovulatory, tubal, and unexplained factors.

A little over one-third of women (36.0%) reported irregular menstrual cycles, and recent weight change (gain or loss) was noted in 23.0% of patients. Taken together, these two findings point toward anovulatory, endocrine-mediated infertility as an important contributor in this cohort. Irregular cycles with weight change are a recognised clinical pattern seen in both polycystic ovarian syndrome and thyroid dysfunction, two of the commonest reversible causes of anovulatory infertility [9,10]. Notably, several patients in this series were already on thyroid medication at the time of the survey, which lends some support to this interpretation, though the questionnaire was not designed to systematically capture thyroid-function status across the full cohort. This overlap suggests that a basic endocrine screen- thyroid-stimulating hormone and a clinical assessment for features of polycystic ovarian syndrome- would be a reasonable next step for women in this cohort who present with cycle irregularity, and is a natural candidate for the correlative hormonal work-up planned as the next stage of this project.

From an Ayurvedic standpoint, this endocrine/ovulatory pattern- irregular cycles with weight gain- correlates closely with the classical description of *Kapha-Vataja Artava Dushti*, in which vitiated *Kapha* and *Vata* obstruct the normal flow of *Artava*, producing *Anartava* (scanty or delayed menstruation) or *Nashta Artava* (absent/irregular menstruation) along with *Sthaulya* (weight gain) as an associated feature. Where cycles are markedly delayed with a thickened, sluggish quality historically described for such presentations, the classical entity of *Granthibhuta Artava* (correlated by several contemporary authors with polycystic ovarian disease) may also be considered relevant.

A history of pelvic infection requiring treatment was reported by 19.0% of women, and prior pelvic surgery or laparoscopy by 9.0%, both of which are recognised contributors to tubal-factor infertility and merit targeted evaluation (hysterosalpingography or diagnostic laparoscopy) in affected individuals. Dyspareunia was reported by 11.0% of patients; when dyspareunia coexists with a history of pelvic infection

or surgery, as it did in a subset of this cohort, it raises the possibility of tubal or peritoneal adhesive disease, or of endometriosis, both of which are established mechanical causes of infertility distinct from the ovulatory pattern discussed above [11]. This distinction matters clinically, since a woman presenting with regular cycles but dyspareunia and a pelvic infection history is more likely to need structural (tubal/pelvic) evaluation than hormonal work-up, whereas a woman with irregular cycles and weight change is more likely to need endocrine evaluation first- the two clinical profiles seen in this cohort therefore point toward two different, complementary diagnostic pathways rather than a single common cause.

This second, structural pattern- dyspareunia with a history of pelvic infection or prior surgery- correlates with the classical description of *Vata-Pittaja Yonivyapad*, in which vitiated *Vata* and *Pitta* produce *Yoni Daha* (burning), *Yoni Shula* (pain), and obstruction within the *Artava Vaha Srotas* (the channels carrying *Artava*), consistent with the tubal or peritoneal adhesive pathology suggested by the modern findings in this subgroup.

Only 22.0% of patients had undergone any prior evaluation for infertility before presenting to this department, suggesting that a considerable proportion of women in this cohort were presenting for formal work-up for the first time despite, in several cases, a substantial duration of attempted conception- several women in this series reported attempting conception for six years or longer before their first evaluation. This delay is consistent with the well-documented tendency in Indian community settings for infertility care-seeking to be postponed because of cost, distance from tertiary centres, or social reluctance to disclose infertility, and underscores the value of early, low-cost, structured history-taking of the kind used in this survey as a first point of contact rather than waiting for tertiary referral.

These findings should be interpreted with the usual caution attached to descriptive, single-centre survey data; the clinical interpretations above are intended to guide the next phase of correlative work at this centre rather than to establish causal mechanisms. This survey relies on self-reported questionnaire responses without corroborating laboratory or imaging data, and no causal inferences can be drawn between the reported clinical factors and infertility given the descriptive, cross-sectional design. The Ayurvedic correlations discussed above are conceptual and were not independently assessed through *Dashavidha Pariksha* or other classical diagnostic tools in this survey.

CONCLUSION

In this cohort of 100 women presenting with infertility (*Vandhyatva*) at a tertiary Ayurveda teaching hospital, primary and secondary infertility were seen in near-equal proportion. Two distinct clinical patterns emerged from the structured history: an endocrine/ovulatory pattern, marked by irregular cycles and weight change, correlating with *Kapha-Vataja Artava Dushti* and plausibly linked to thyroid dysfunction or polycystic ovarian syndrome; and a structural/tubal pattern, marked by dyspareunia together with a history of pelvic infection or surgery, correlating with *Vata-Pittaja Yonivyapad*. Recognising these two patterns at the time of first presentation- using nothing more than a structured questionnaire- can help direct patients toward the appropriate first-line investigation without delay. Correlation of this clinical profile with hormonal, imaging, and classical Ayurvedic diagnostic findings is planned as the next stage of this work.

Ethics Approval: This survey was conducted as a departmental academic initiative under institutional guidance, with informed consent obtained from all participants and patient confidentiality maintained throughout, in accordance with the principles of the Declaration of Helsinki.

REFERENCES

1. Zegers-Hochschild F, Adamson GD, de Mouzon J, et al. The International Committee for Monitoring Assisted Reproductive Technology (ICMART) and the World Health Organization (WHO) revised glossary on ART terminology. *Fertil Steril*. 2009; 92(5): 1520-1524.
2. Ombelet W, Cooke I, Dyer S, Serour G, Devroey P. Infertility and the provision of infertility medical

- services in developing countries. *Hum Reprod Update*. 2008; 14(6): 605-621.
3. Practice Committee of the American Society for Reproductive Medicine. Definitions of infertility and recurrent pregnancy loss: a committee opinion. *Fertil Steril*. 2020; 113(3): 533-535.
4. Kumar N, Singh AK. Trends of male factor infertility, an important cause of infertility: a review of literature. *J Hum Reprod Sci*. 2015; 8(4): 191-196.
5. Practice Committee of the American Society for Reproductive Medicine. Diagnostic evaluation of the infertile female: a committee opinion. *Fertil Steril*. 2015; 103(6): e44-e50.
6. Acharya YT, editor. *Charaka Samhita of Agnivesha, Sharira Sthana, Chapter 2*. Reprint ed. Varanasi: Chaukhambha Surbharati Prakashan; 2019.
7. Acharya YT, editor. *Charaka Samhita of Agnivesha, Chikitsa Sthana, Chapter 30, Verse 15-20*. Reprint ed. Varanasi: Chaukhambha Surbharati Prakashan; 2019.
8. Shastri AD, editor. *Sushruta Samhita of Maharshi Sushruta, Sharira Sthana, Chapter 2, Verse 33*. Reprint ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2018.
9. Poppe K, Velkeniers B, Glinioer D. The role of thyroid autoimmunity in fertility and pregnancy. *Nat Clin Pract Endocrinol Metab*. 2008; 4(7): 394-405.
10. Escobar-Morreale HF. Polycystic ovary syndrome: definition, aetiology, diagnosis and treatment. *Nat Rev Endocrinol*. 2018; 14(5): 270-284.
11. Practice Committee of the American Society for Reproductive Medicine. Endometriosis and infertility: a committee opinion. *Fertil Steril*. 2012; 98(3): 591-598.

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