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Understanding the Pathophysiology of Female Infertility: A Systematic Review with Special Reference to Anovulation

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ABSTRACT

Female infertility is a multifactorial condition influenced by various physiological, hormonal, and environmental factors, with *Anovulation* being one of the primary causes. *Anovulation* results from disruptions in the hypothalamic-pituitary-ovarian (HPO) axis, leading to hormonal imbalances such as elevated luteinizing hormone (*LH*), decreased follicle-stimulating hormone (*FSH*), hyperprolactinemia, insulin resistance, and thyroid dysfunction. Conditions like polycystic ovarian syndrome (*PCOS*), primary ovarian insufficiency (*POI*), and hypothalamic dysfunction further contribute to ovulatory dysfunction. From an Ayurvedic perspective, *Anovulation* is associated with an imbalance of *Vata* and *Kapha Dosha*, affecting *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). Poor dietary habits, sedentary lifestyles, chronic stress, and metabolic disorders contribute to *Agnimandya* (digestive fire impairment) and *Ama* (toxins), further aggravating ovarian dysfunction. Ayurvedic interventions, including *Panchakarma*, *Rasayana* therapies, herbal formulations, and dietary modifications, aim to restore hormonal balance and improve ovulatory function. This systematic review explores the pathophysiology of female infertility with a special focus on *Anovulation*, integrating modern biomedical insights with Ayurvedic principles. Understanding these underlying mechanisms is crucial for developing targeted therapeutic approaches to enhance fertility outcomes.

Keywords: *Anovulation, Female Infertility, Hypothalamic-Pituitary-Ovarian Axis, PCOS, Kapha-Vata Imbalance, Artava Dhatu, Rajovaha Srotas*

1. INTRODUCTION

Female infertility is a significant global health concern, affecting reproductive outcomes and overall well-being. It is defined as the inability to conceive after 12 months of regular unprotected intercourse. Among the various causes of female infertility, *Anovulation* is one of the most prevalent factors, accounting for nearly 30–40% of infertility cases.[1] *Anovulation* refers to the failure of ovulation, leading to irregular or absent menstrual cycles and compromised fertility.[2]

From an Ayurvedic perspective, female infertility due to *Anovulation* is associated with imbalances in *Vata* and *Kapha Dosha*, leading to disturbances in *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). The accumulation of *Ama* (toxins), improper dietary habits, and impaired metabolic functions (*Agnimandya*) are key pathological factors contributing to ovarian dysfunction. Ayurvedic therapies such as *Panchakarma*, *Rasayana*, and herbal formulations aim to restore hormonal equilibrium and improve reproductive health.[3]

The pathophysiology of *Anovulation* is primarily linked to dysfunctions in the hypothalamic-pituitary-ovarian (*HPO*) axis. This disruption can be attributed to hormonal imbalances, including elevated luteinizing hormone (*LH*), low follicle-

stimulating hormone (*FSH*), hyperprolactinemia, thyroid disorders, insulin resistance, and androgen excess.[4] Conditions such as polycystic ovarian syndrome (*PCOS*), primary ovarian insufficiency (*POI*), and hypothalamic dysfunction further contribute to ovulatory disturbances. Lifestyle factors such as obesity, excessive exercise, chronic stress, and poor dietary habits also play a crucial role in the onset of *Anovulation*.[5]

2. EPIDEMIOLOGY

Global Perspective

Infertility affects approximately 8–12% of reproductive-aged couples worldwide, with an increasing trend due to lifestyle changes, environmental factors, and delayed childbearing. Among these cases, ovulatory disorders contribute to nearly **25–40%** of female infertility cases. Polycystic ovarian syndrome (*PCOS*) is the leading cause of *Anovulation* globally, affecting **6–12%** of women of reproductive age. Other contributing factors include hypothalamic dysfunction, primary ovarian insufficiency (*POI*), and hyperprolactinemia. Studies indicate that the prevalence of infertility is higher in developed countries due to increasing maternal age and metabolic disorders such as obesity and insulin resistance.[6]

Indian Perspective

In India, infertility affects around **10–15%** of married couples, with female infertility contributing to nearly **40–50%** of cases. *Anovulation* is a primary cause of infertility in Indian women, largely due to the high prevalence of *PCOS*, which affects **9–22%** of reproductive-aged women. Additionally, metabolic disorders, such as insulin resistance, obesity, and thyroid dysfunction, further contribute to *Anovulation*. Urbanization, sedentary lifestyles, and increasing stress levels have exacerbated infertility rates, making *Anovulation* a critical public health concern.[7]

From an Ayurvedic perspective, female infertility due to *Anovulation* is associated with imbalances in *Vata* and *Kapha Dosha*, leading to disturbances in *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). The accumulation of *Ama* (toxins), improper dietary habits, and impaired metabolic functions (*Agnimandya*) are key pathological factors contributing to ovarian dysfunction. Ayurvedic therapies such as *Panchakarma*, *Rasayana*, and herbal formulations aim to restore hormonal equilibrium and improve reproductive health.[8] This review provides a comprehensive understanding of the pathophysiology of *Anovulation* as a cause of female infertility, integrating modern biomedical insights with Ayurvedic principles. A thorough understanding of these mechanisms is essential for developing targeted therapeutic strategies to enhance fertility outcomes.[9]

3. AIM AND OBJECTIVES

Aim

To analyze the pathophysiology of female infertility with a special focus on *Anovulation*, integrating modern medical insights with Ayurvedic principles for effective management.

Objectives

1. Examine hormonal, metabolic, and physiological factors affecting ovulation.
2. Assess global and Indian prevalence, risk factors, and trends.
3. Review diagnosis, ovulation induction therapies, and assisted reproductive techniques (*ART*).
4. Analyze *Vata-Kapha* imbalances, *Artava Dhatu*, and *Rajovaha Srotas* involvement in *Anovulation*.
5. Develop a combined modern-Ayurvedic treatment model for managing *Anovulation*-induced infertility.

4. MATERIAL AND METHODS

1. **Study Design**
    - Systematic review of literature on *Anovulation* and female infertility.
    - Comparative analysis of modern medical and Ayurvedic approaches.
2. **Data Sources**
    - Peer-reviewed journals (PubMed, Scopus, Google Scholar).
    - Ayurvedic classical texts (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*).
    - Clinical guidelines and research papers on infertility.

Methodology

- Collection of data on epidemiology, pathophysiology, and treatment approaches.

- Analysis of Ayurvedic and modern diagnostic principles.
- Comparative assessment of therapeutic interventions.

The Concept of Pathophysiology of Female Infertility

Female infertility is a multifaceted condition caused by various genetic, hormonal, metabolic, and environmental factors. One of the major contributors to infertility is *Anovulation*, which affects a significant proportion of women with reproductive disorders. The pathophysiology of female infertility involves disruptions in the **hypothalamic-pituitary-ovarian (HPO) axis**, metabolic imbalances, structural abnormalities, and inflammatory conditions.[10]

1. Hypothalamic-Pituitary-Ovarian (HPO) Axis Dysregulation

The **HPO axis** plays a crucial role in the regulation of ovulation and reproductive function. Disruptions in this axis lead to hormonal imbalances, affecting follicular development and ovulation:

- **Hypothalamic Dysfunction**: Stress, excessive exercise, and eating disorders can suppress gonadotropin-releasing hormone (*GnRH*) secretion, leading to functional hypothalamic amenorrhea.
- **Pituitary Disorders**: Hyperprolactinemia inhibits *GnRH* secretion, reducing *FSH* and *LH* levels, which are essential for ovulation.
- **Ovarian Dysfunction**: Polycystic ovarian syndrome (*PCOS*), primary ovarian insufficiency (*POI*), and ovarian resistance syndromes disrupt normal follicular maturation and ovulation.[11]

2. Anovulation and Endocrine Imbalances

Anovulatory infertility is primarily linked to endocrine disorders, including:

- **Polycystic Ovarian Syndrome (*PCOS*)**: Characterized by hyperandrogenism, insulin resistance, and chronic *Anovulation*, affecting 9–22% of reproductive-aged women. Elevated *LH* and androgen levels impair follicular development, leading to infertility.
- **Thyroid Disorders**: Hypothyroidism and hyperthyroidism influence ovulation by altering *FSH*, *LH*, and prolactin levels.
- **Hyperprolactinemia**: Increased prolactin levels inhibit *GnRH* secretion, leading to menstrual irregularities and *Anovulation*.
- **Obesity and Insulin Resistance**: Excess body weight alters *GnRH* pulsatility and increases androgen production, further impairing ovulatory function.[12]

3. Structural and Anatomical Factors

- **Tubal Factor Infertility**: Blockage or damage to the fallopian tubes due to infections (*Pelvic Inflammatory Disease*), endometriosis, or previous surgeries can prevent fertilization.
- **Uterine Abnormalities**: Conditions like fibroids, polyps, or congenital anomalies (*septate uterus, bicornuate uterus*) impact implantation and pregnancy maintenance.[13]

4. Inflammatory and Autoimmune Factors

- **Endometriosis**: Chronic inflammation and adhesions disrupt ovarian function, fallopian tube motility, and implantation.
- **Autoimmune Disorders**: Conditions like autoimmune thyroiditis, systemic lupus erythematosus (*SLE*), and antiphospholipid syndrome can impair ovarian reserve and implantation.[14]

Ayurvedic Concept in the Pathophysiology of Female Infertility

In Ayurveda, female infertility (*Vandhyatva*) is attributed to an imbalance in *Dosha*, improper nourishment of *Dhatu* (tissues), and obstruction in *Srotas* (body channels). The fundamental factors necessary for conception (*Garbhotpatti*) include *Ritu* (fertile period), *Kshetra* (healthy reproductive system), *Ambu* (nutritional supply), and *Beeja* (healthy ovum and sperm). Any disturbance in these factors leads to difficulties in conception, with *Anovulation* being a major underlying cause.[15]

The role of *Dosha* in infertility is significant, with *Vata*, *Kapha*, and *Pitta* each playing a distinct role in reproductive health. *Vata Dosha*, responsible for movement and circulation, governs the menstrual cycle and ovulation. Its vitiation leads to irregular cycles, delayed ovulation, and poor follicular development. *Kapha Dosha* provides nourishment and stability, but its imbalance results in excessive mucus accumulation, cyst formation (*PCOS*), and anovulation. *Pitta Dosha* governs metabolism and hormonal activity, and its aggravation may lead to inflammation, excessive bleeding, and conditions such as endometriosis.[16]

The obstruction of reproductive channels (*Rajovaha Srotas*) further contributes to infertility. Blockage due to *Kapha* accumulation, *Ama* (toxins), or aggravated *Vata* can prevent ovulation and implantation. Similarly, disturbances in *Artava Dhatu* (reproductive tissue) impact follicular development and menstrual regularity. Weak digestion (*Agnimandya*) results in improper nourishment of *Artava Dhatu*, further exacerbating ovulatory dysfunction.[17]

Ayurvedic texts classify female infertility based on *Dosha* dominance. *Vataja Vandhyatva* is characterized by irregular, painful menstruation and weak ovarian function. *Kaphaja Vandhyatva* is associated with anovulation, obesity, and *PCOS*, while *Pittaja Vandhyatva* manifests as heavy bleeding, inflammation, and recurrent miscarriages. Understanding these patterns helps in formulating individualized treatment approaches.[18]

The Ayurvedic management of *Anovulation* and infertility involves a combination of *Panchakarma*, *Rasayana* therapy, herbal formulations, and dietary modifications. *Panchakarma* procedures such as *Vamana* (Kapha detoxification), *Virechana* (Pitta purification), *Basti* (Vata pacification), and *Uttar Basti* (medicated enema for reproductive health) help restore hormonal balance.[19] Rejuvenating therapies (*Rasayana*), including *Shatavari*, *Ashwagandha*, and *Guduchi*, nourish *Artava Dhatu* and enhance ovarian function. Additionally, dietary corrections and lifestyle modifications, such as a *Vata-pacifying diet*, yoga (*Bhadrasana*, *Sarvangasana*), and stress management, play a crucial role in restoring reproductive health.[20]

Samprapti of Female Infertility (_Vandhyatva_)[21]

Nidana (Causative Factors)

Aharaja (Dietary issues) → *Agnimandya* → *Ama* formation
Viharaja (Lifestyle issues) → *Vata-Kapha* imbalance
Manasika (Stress, anxiety) → *Prana Vayu* & *Sadhaka Pitta* imbalance
Beeja Dushti (Genetic factors) → Poor *Shukra*/*Artava Dhatu*
Agantuja (Infections, toxins) → *Rajovaha Srotas* obstruction

⬇

2. Dosha Prakopa (Dosha Imbalance)

Vata Dushti → Irregular cycles, anovulation
Kapha Dushti → *PCOS*, cyst formation, *Srotorodha*
Pitta Dushti → Inflammation, excessive bleeding

⬇

3. Dushya (Affected Tissues & Channels)

Artava Dhatu → Poor follicular development
Rasa & Rakta Dhatu → Nutritional deficiency, poor endometrial health
Rajovaha Srotas → Blocked reproductive pathways

⬇

4. Vyadhi Utpatti (Disease Manifestation)

Primary Infertility → Failure to conceive
Secondary Infertility → Inability to conceive again
Associated Disorders → *PCOS*, *Amenorrhea*, *Dysmenorrhea*

⬇

Upadrava (Complications)

Chronic Infertility, Miscarriages, Hormonal Imbalance

⬇

Female Infertility (_Vandhyatva_)

ACCORDING TO MODERN[22]

Pathophysiology of Female Infertility Due to Anovulation

Ovulatory Dysfunction

Hormonal Imbalance (*LH*, *FSH*, *Prolactin*, *Androgens*, *Thyroid Hormones*)
Disruption in the **Hypothalamic-Pituitary-Ovarian (HPO) Axis**
Impaired follicular development in ovaries

⬇

Absence of Ovum Release (Anovulation)

Follicles fail to rupture and release a mature ovum
No ovulatory surge (*LH surge deficiency*)
Common causes: *PCOS, Hypothyroidism, Hyperprolactinemia, Primary Ovarian Insufficiency*

⬇

3. Hindrance in Sperm-Ovum Interaction

No ovum in the fallopian tube for fertilization
No sperm-egg interaction due to absence of ovulation
Endometrial receptivity may also be affected

⬇

4. Absence of Fertilization

Without ovulation, fertilization cannot occur
No zygote formation in the fallopian tube

⬇

Infertility

Inability to conceive due to lack of fertilization
Menstrual irregularities and hormonal imbalances further contribute to infertility

Treatment Schedule for Female Infertility (*Vandhyatva*) Due to Anovulation[23]

S.No	Treatment Phase	Drug/Formulation	Dosage	Anupana (Vehicle)	Duration
1	**Deepana-Pachana (Digestive & Metabolic Correction)**	*Trikatu Churna*	1–2 g	Warm water	15 days
2	**Srotoshodhana (Channel Purification - Detoxification)**	*Panchakarma (Vamana/Virechana/Basti)*	As per physician	*Snehapana* + *Swedana*	7–14 days
3	**Vata-Pitta Shamana (Hormonal Regulation & Ovulation Induction)**	*Phala Ghrita*	10 g	Warm milk	30–45 days
4	**Rasayana Therapy (Rejuvenation & Ovarian Health)**	*Shatavari Churna*	3–5 g	Warm milk	60 days
5	**Kapha-Pacifying & PCOS Management**	*Kanchanar Guggulu*	2 tablets (250 mg each)	Warm water	30 days
6	**Anovulation Management**	*Pushyanuga Churna*	3 g	Honey	30 days
7	**Garbhashaya Shodhana (Uterine Cleansing & Endometrial Health)**	*Ashokarishta*	15-20 ml	Equal quantity of water	45 days
8	**Uttara Basti (Intrauterine Medicated Enema)**	*Yashtimadhu Taila* / *Phala Ghrita*	5–10 ml	Direct intrauterine	3–7 days (as per cycle)
9	**Ovulatory Support & Fertility Boost**	*Dashmoolarishta*	15-20 ml	Equal quantity of	45 days

				water	
10	**Lifestyle & Dietary Modifications**	*Satvika Ahara* (Nutritious Fertility Diet)	-	-	Continuous

Panchakarma Treatment Schedule[24]

Day	Panchakarma Procedure	Therapy Type	Procedure	Expected Outcome
Day 1 - 5	**Deepana-Pachana**	Internal Metabolic Correction	*Trikatu Churna* (3g BD) with warm water	Improves digestion, removes *Ama*
Day 6 - 10	**Snehapana (Oleation Therapy)**	Internal Oleation	*Phala Ghrita* (20 ml) increasing dose daily	Lubricates *Srotas*, prepares for detox
Day 11 - 12	**Swedana (Sudation Therapy)**	External Therapy	*Bashpa Sweda* (Herbal Steam)	Opens channels, mobilizes toxins
Day 13 - 14	**Virechana (Purgation Therapy)**	Pitta Detox	*Avipattikar Churna* (5g) or *Eranda Taila* (30ml)	Eliminates *Pitta* toxins, regulates hormones
Day 15 - 20	**Basti (Medicated Enema)**	Vata-Pacifying Therapy	*Dashmool Basti* (Oil-Based) & *Yashtimadhu Basti* (Milk-Based)	Regulates ovulation, improves uterine health
Day 21 - 23	**Uttara Basti (Medicated Uterine Enema)**	Female Reproductive Cleansing	*Phala Ghrita*/*Yashtimadhu Taila* (5–10 ml intrauterine)	Clears *Rajovaha Srotas*, boosts fertility
Day 24 - 26	**Rasayana Therapy (Rejuvenation)**	Tissue Regeneration	*Shatavari Ghrita* (10g BD) + *Ashwagandha Lehyam*	Enhances *Artava Dhatu*, regulates cycle
Day 27 - 30	**Vata-Kapha Shamana Therapy**	Final Hormonal Balance	*Pushyanuga Churna* (3g BD) + *Ashokarishta*	Restores menstrual cycle & ovulation

5. FINDINGS

1. **Prevalence of Anovulation in Female Infertility**
    - *Anovulation* is one of the leading causes of female infertility, contributing to 30–40% of infertility cases worldwide. *PCOS* is the most common endocrine disorder associated with anovulation, affecting 9–22% of reproductive-aged women.
2. **Pathophysiology of Anovulation**
    - Disruptions in the **Hypothalamic-Pituitary-Ovarian (HPO) Axis** impair follicular development and ovulation. Hormonal imbalances, including *LH*, *FSH*, prolactin, insulin resistance, and thyroid dysfunction, play a crucial role in anovulatory cycles. Metabolic factors like obesity, insulin resistance, and chronic inflammation further exacerbate ovarian dysfunction.
3. **Modern Medical Management of Anovulation**
    - Ovulation induction drugs such as *Clomiphene Citrate*, *Letrozole*, and gonadotropins are commonly used but may have side effects and variable success rates. Assisted reproductive technologies (*ART*), including *In-Vitro Fertilization (IVF)*, offer options for patients with refractory anovulation.

4. **Ayurvedic Perspective on Female Infertility**
    - *Vandhyatva* (female infertility) is caused by *Vata-Kapha* imbalance, affecting *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). *Vata Dushti* leads to irregular ovulation and implantation failure, while *Kapha Dushti* results in cyst formation and hormonal imbalance (*PCOS*). *Agnimandya* (digestive fire impairment) and *Ama* (toxins) accumulation disrupt ovarian function and reproductive health.
5. **Efficacy of Ayurvedic Treatments in Anovulatory Infertility**
    - **Panchakarma Therapies**
        - *Virechana* helps in detoxifying *Pitta* and hormonal regulation. *Basti* therapy (especially *Dashmool Basti* and *Yashtimadhu Basti*) is effective in restoring ovulation and balancing *Vata Dosha*. *Uttara Basti* clears *Rajovaha Srotas* and improves endometrial receptivity.
    - **Rasayana Therapy**
        - *Shatavari*, *Ashwagandha*, and *Guduchi* enhance ovarian function and hormonal balance. *Phala Ghrita* and *Ashokarishta* improve menstrual regularity and ovulation.
    - **Dietary & Lifestyle Modifications**
        - *Vata-Kapha pacifying diet* (warm, light, and nourishing foods) supports hormonal balance. Regular yoga (*Bhadrasana, Sarvangasana*) and meditation reduce stress and improve fertility.
6. **Integrative Approach: Ayurveda and Modern Medicine**
    - A combined approach utilizing modern ovulation induction therapies along with Ayurvedic detoxification (*Panchakarma*), rejuvenation (*Rasayana*), and dietary modifications provides a **more holistic and sustainable solution**. Ayurvedic interventions focus on **correcting root causes**, detoxifying the body, and **enhancing natural conception** without major side effects.

6. DISCUSSION

Female infertility, particularly due to *Anovulation*, is a multifactorial condition influenced by hormonal, metabolic, and structural imbalances. The disruption of the **Hypothalamic-Pituitary-Ovarian (HPO) Axis**, insulin resistance, and endocrine disorders such as *polycystic ovarian syndrome (PCOS)*, thyroid dysfunction, and hyperprolactinemia play a crucial role in impairing ovulatory function.[25] Modern medical interventions, including ovulation induction with *Clomiphene Citrate*, *Letrozole*, gonadotropin therapy, and assisted reproductive techniques (*ART*), have shown efficacy but often come with limitations such as side effects and variable success rates. Therefore, a holistic approach integrating Ayurveda with modern medical treatments can provide better outcomes in managing *Anovulation*-induced infertility.[26]

From an Ayurvedic perspective, infertility (*Vandhyatva*) is associated with imbalances in *Vata* and *Kapha Dosha*, affecting *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). *Vata Dushti* leads to irregular ovulation, poor follicular development, and implantation failure, while *Kapha Dushti* contributes to cyst formation, hormonal imbalance, and *Srotorodha* (blockage of reproductive channels).[27] Ayurvedic treatments such as *Panchakarma*, *Rasayana* therapy, and herbal formulations aim to restore hormonal balance, improve ovarian function, and enhance fertility by eliminating toxins (*Ama*), nourishing *Artava Dhatu*, and cleansing *Rajovaha Srotas*.[28]

The **Panchakarma protocol**, including *Virechana*, *Basti*, and *Uttara Basti*, plays a significant role in detoxifying the body and regulating hormonal function. *Basti* therapy, especially with *Dashmool Taila* and *Yashtimadhu Ghrita*, has been proven to be effective in managing *Vata* imbalance, restoring menstrual regularity, and enhancing reproductive health.[29] *Uttara Basti*, an intrauterine medicated oil or ghee enema, helps in clearing uterine channels, improving endometrial receptivity, and promoting implantation. These Ayurvedic interventions not only support ovulation but also address underlying metabolic disorders such as insulin resistance and obesity, commonly associated with *PCOS*.[30]

Additionally, **Rasayana therapies**, including *Shatavari*, *Ashwagandha*, *Guduchi*, and *Phala Ghrita*, provide nourishment to the reproductive system, enhance follicular maturation, and regulate menstrual cycles. Dietary and lifestyle modifications, such as a *Vata-Kapha pacifying diet*, regular exercise, and stress management through yoga and meditation, further support fertility enhancement. Ayurveda emphasizes a holistic approach, considering not only the physical aspects but also psychological well-being, which plays a crucial role in conception.[31]

7. CONCLUSION

Female infertility due to *Anovulation* is a complex condition influenced by hormonal, metabolic, and lifestyle factors. Modern medical approaches, including ovulation induction therapies (*Clomiphene Citrate*, *Letrozole*, gonadotropins) and assisted reproductive techniques (*ART*), provide effective solutions but often come with limitations such as side effects and inconsistent success rates. Therefore, integrating Ayurvedic principles with modern medicine offers a holistic, natural, and

sustainable approach to managing *Anovulation* and improving fertility outcomes. From an Ayurvedic perspective, *Vandhyatva* (female infertility) is primarily caused by *Vata* and *Kapha Dosha* imbalances, affecting *Artava Dhatu* (reproductive tissue) and *Rajovaha Srotas* (reproductive channels). Ayurvedic therapies such as *Panchakarma* (*Virechana*, *Basti*, *Uttara Basti*), *Rasayana* (*Shatavari*, *Ashwagandha*, *Phala Ghrita*), and dietary modifications help detoxify the body, balance hormones, and restore ovulatory function. These therapies not only regulate the menstrual cycle but also improve endometrial receptivity and overall reproductive health. The findings of this review suggest that an integrative approach, combining modern reproductive treatments with Ayurvedic interventions, can significantly enhance fertility outcomes in women suffering from *Anovulation*. Ayurveda focuses on root cause correction, detoxification, and long-term hormonal regulation, making it a valuable complementary therapy alongside modern infertility treatments.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NIL

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