

**AYURVEDIC INTERVENTION IN PRIMARY INFERTILITY
ASSOCIATED WITH LOW ANTI-MÜLLERIAN HORMONE (AMH)
: A CASE REPORT**

¹Chetana Patil,

²Rachana H V

¹Post Graduate Scholar, Department of Prasuti Tantra and Stree Roga, Sri Sri College of Ayurvedic Science and Research, Bengaluru

²Professor, Department of Prasuti Tantra and Stree Roga, Sri Sri College of Ayurvedic Science and Research, Bengaluru

<https://doi.org/10.70057/ijaar.2026.70805>

ABSTRACT

Aim: To evaluate the effect of Ayurvedic management in a patient with primary infertility associated with low Anti-Müllerian Hormone (AMH) levels and diminished ovarian reserve (DOR). **Background:** Diminished ovarian reserve is a major cause of female infertility, characterized by reduced ovarian response and fertility potential. In Ayurveda, it can be correlated with *Vandhyatwa* (infertility) associated with *Artava Kshaya* (depletion of reproductive tissue) and *Beeja Daurbalya* (defective ovum), resulting from *Vata Dosha* vitiation and inadequate nourishment of reproductive tissues. **Case Description:** A 31-year-old woman presented with primary infertility for three years, scanty menstruation, and previous failed intrauterine insemination and in vitro fertilization. Serum AMH was 0.5 ng/mL, while other hormonal parameters, semen analysis, and tubal patency were normal. She was diagnosed with *Apraja Vandhyatwa* associated with *Artava Kshaya*. Treatment included *Deepana-Pachana* with *Chitrakadi Vati*, *Snehapana* with *Phala Ghrita*, *Virechana Karma*, *Kala Basti* comprising *Brihatyadi Yapana Basti* and *Sahacharadi Taila Anuvasana Basti*, followed by oral medications, dietary modifications, and lifestyle advice. After treatment, menstrual flow improved, ultrasonography demonstrated a dominant follicle (20 × 15 mm) with ovulation, and the patient subsequently conceived naturally, confirmed by a positive urine pregnancy test. **Conclusion:** This case suggests that a comprehensive Ayurvedic approach may improve follicular maturation and facilitate natural conception in women with low AMH-associated infertility. Larger clinical studies are required to validate these findings.

Keywords: Infertility, Low AMH, Diminished Ovarian Reserve, *Vandhyatwa*, *Artava Kshaya*, Ayurveda.

INTRODUCTION: Infertility is defined as the inability to conceive after one year or more of regular unprotected intercourse. Successful conception depends on the fertility potential of both partners. Male

factors contribute to approximately 30–40% of cases, female factors account for 40–55%, and combined factors are responsible in about 10% of cases [1]. The rising incidence of infertility is closely

associated with modern lifestyle changes, including dietary imbalances, sedentary habits, chronic stress, and exposure to environmental toxins. According to the FIGO Manual (1990), ovulatory factors contribute to 30–40% of infertility cases. Among these, diminished ovarian reserve (DOR) plays a significant role [2].

Ovarian reserve refers to both the quantity and quality of follicles present in the ovaries. One of the key markers for assessing ovarian reserve is serum anti-Müllerian hormone (AMH), measured on day 3 of the menstrual cycle. Low AMH levels (0.2–0.7 ng/mL) indicate diminished ovarian reserve. AMH is secreted by the granulosa cells of pre-antral and small antral follicles and is detectable in circulation prior to follicle-stimulating hormone (FSH)-dependent selection. Notably, AMH levels begin to decline after the age of 25 years [3].

In Ayurveda, diminished ovarian reserve can be correlated with *Vandhyatwa* (infertility) associated with *Artava Kshaya* (depletion of reproductive tissue/ovum), resulting from *Dosha* imbalance, *Agnimandya* (impaired metabolic activity), and dysfunction of *Artavavaha Srotas* (reproductive channels). The present case is unique because the patient had low AMH (0.5 ng/mL) with a history of failed IUI and IVF attempts and subsequently achieved natural conception following a comprehensive Ayurvedic treatment protocol comprising *Deepana-Pachana* (digestive and metabolic correction), *Virechana Karma* (therapeutic purgation), *Kala Basti* (scheduled medicated enema therapy), and *Shamana Aushadhis* (palliative medications). This case highlights the potential role of Ayurvedic

interventions in improving reproductive function and fertility outcomes in women with diminished ovarian reserve.

PATIENT INFORMATION

A 31-year-old married female presented to the Outpatient Department of *Prasuti Tantra and Stree Roga* (Obstetrics and Gynecology) (OPD No. 301625 IPD No. 1650) at Sri Sri College of Ayurvedic Science and Research Hospital, Bengaluru, with complaints of inability to conceive for three years. She had been married for four years and had regular coital frequency (3–4 times per week). Her body mass index was 23 kg/m². She belonged to a middle socioeconomic background and was engaged in a sedentary occupation.

Main Concerns and Symptoms of the Patient: The patient's primary concern was inability to conceive despite three years of regular unprotected marital life. She also complained of scanty menstrual flow for the previous six months. Menstrual cycles were regular at intervals of 28–30 days with bleeding lasting for 2–3 days and reduced flow. She was concerned about her low Anti-Müllerian Hormone (AMH) level and previous unsuccessful fertility treatments.

Medical, Family, and Psychosocial History Including Relevant Genetic Information: There was no history of hypertension, diabetes mellitus, tuberculosis, bronchial asthma, thyroid disorders, or other chronic systemic illnesses. The patient had undergone appendectomy in April 2025. Family history was negative for premature ovarian insufficiency, infertility, or hereditary reproductive disorders. Dietary history revealed frequent consumption of oily and processed foods, irregular meal timings, and inadequate physical activity.

Occupational sedentary habits and psychological stress related to infertility were also present. No significant genetic disorders were reported in the family.

Relevant Past Interventions and Their Outcomes: The patient had undergone complete infertility evaluation at an allopathic centre. She underwent intrauterine insemination (IUI) in November 2023, which did not result in conception. Subsequently, she underwent in vitro fertilization (IVF) in March 2024; however, the cycle was unsuccessful because of inadequate ovarian response and failure to achieve pregnancy. Despite these interventions, conception was not achieved, following which she sought Ayurvedic management.

CLINICAL FINDINGS: On general physical examination, the patient was moderately built and well-nourished with a body mass index (BMI) of 23 kg/m². Vital signs were within normal limits. There was no evidence of pallor, icterus, cyanosis, clubbing, lymphadenopathy, edema, hirsutism, acne, galactorrhea, or thyroid enlargement.

According to Ayurvedic assessment, *Ashta Sthana Pareeksha* (eightfold clinical examination) revealed *Vata-Kapha*

Pradhana Prakriti (predominance of Vata and Kapha constitutions), *Madhyama Akrti* (moderate body build), *Madhyama Koshta* (moderate bowel habit), and *Madhyama Satwa* (moderate mental strength). Appetite was reduced, and the tongue was mildly coated, suggestive of *Agnimandya* (impaired digestive and metabolic activity).

Menstrual history revealed regular menstrual cycles occurring every 28–30 days with bleeding lasting for 2–3 days. The menstrual flow was scanty, characterized by approximately 40% pad soakage on the first day, 30% on the second day, and spotting on the third day. The menstrual blood was brownish-red in color with occasional small clots measuring 1–2 cm. Dysmenorrhea was absent.

Systemic examination of the cardiovascular, respiratory, abdominal, and nervous systems revealed no significant abnormalities. Local gynaecological examination findings were within normal limits.

Declaration of Patient Consent:

An informed consent was taken from the patient before the treatment with her own language in written format.

TIMELINE Table 1: Timeline

Date/Period	Clinical History, Diagnostic Assessment, Intervention, and Outcome
2022	Married and attempting conception through regular unprotected intercourse.
November 2023	Underwent infertility evaluation and intrauterine insemination (IUI); conception not achieved.
March 2024	Underwent in vitro fertilization (IVF); unsuccessful due to inadequate ovarian response and failure to conceive.
April 2025	Appendicectomy performed; postoperative recovery was uneventful.
May–November 2025	Continued primary infertility with scanty menstrual flow despite previous fertility treatments.

25 November 2025	Presented to the Department of <i>Prasuti Tantra and Stree Roga</i> (Obstetrics and Gynecology) with primary infertility of three years' duration and scanty menstruation.
25 November 2025	Clinical examination performed. Review of investigations revealed serum AMH 0.5 ng/mL (Figure No.1), normal hormonal profile (Figure No.2 and 3), bilateral tubal patency on HSG (Figure No. 5), and normal semen analysis (Figure No.6). Diagnosed as <i>Apraja Vandhyatwa</i> (primary infertility) associated with <i>Artava Kshaya</i> (depletion of reproductive tissue/ovum). Planned for classical <i>Virechana</i> (Medicated purgation therapy) and <i>Kala Basti</i> (Medicated enema therapy). 1) Underwent <i>Deepana-Pachana</i> (digestive and metabolic correction) with <i>Chitrakadi Vati</i> 2 tablets orally(before food) thrice a day X 2 days
27 November–04 December 2025	2) <i>Snehapana</i> (internal oleation) with <i>Phala Ghrita</i>, (30 mL on Day1, 60 mL on Day 2, 90 mL on Day 3, 110 mL on Day 4 Orally on empty stomach) <i>Snehapana</i> instructions given: Avoid exposure to cold. Drink only lukewarm water and consume food only after the Ghrita is digested and hunger appears. Eat light, warm, freshly prepared food. Avoid cold, oily, spicy, fried, and heavy foods. Avoid strenuous exercise, daytime sleep, late nights, travel, and sexual intercourse. Do not suppress natural urges and avoid stress. Follow all instructions until the completion of <i>Virechana Karma</i>. 3) <i>Sarvanga Abhyanga</i> (therapeutic oil massage), with <i>Bala Ashwagandha Taila</i> and <i>Bashpa Sweda</i> for 45 minutes X 3 days 4) <i>Virechana Karma</i> (therapeutic purgation) with <i>Trivrut Lehya</i> 60 gms + <i>Triphala Kashaya</i> 100 ml (10gms <i>Triphala Churna</i>, 200ml of water, boiled and reduced to 100ml) orally. (No. of Vegas- 13, <i>Madhyama Shuddhi</i>) 5) <i>Samsarjana krama</i> for next 5 days- On the first day, the patient was advised <i>Peya</i> (Red rice <i>Ganji</i> water) for both meals. On the second day, <i>Vilepi</i> (thick red rice <i>Ganji</i>) was administered. On the third day, <i>Akrita Yusha</i> (green gram soup without seasoning) was introduced, followed by <i>Krita Yusha</i> (seasoned green gram soup with a small quantity of ghee and mild spices) on the fourth day. On the fifth day, the patient gradually resumed a light, easily digestible regular diet (<i>Prakrita Ahara</i>).

05–12 December 2025	<i>Kala Basti</i> (scheduled medicated enema therapy) <i>Yapana Basti</i> – <i>Brihatyadi Yapana Basti</i> 450ml <i>Anuvasana Basti</i> – <i>Sahacharadi Taila</i> 60ml <i>Shamanoushadhis</i> (Oral medications): 1) <i>Tab Pushpadhanwa Rasa</i> 2 tablets orally (after food) twice a day. 2) <i>Tab Stree Vyadhihara Rasa</i> 1 tablet orally (after food) thrice a day. 3) <i>Phala Ghrita</i> (Ghee) 1tsp on empty stomach with warm water 4) <i>Vajikarana Rasayana</i> (herbal electuary) 1 tsp. orally (after food) twice a day with Milk.
December 2025–February 2026	Patient got discharged, advised- To continue <i>Shamanoushadhis</i> (Oral medications) for 2 months <i>Pathya Ahara Vihara</i> was advised – - The patient was instructed to avoid spicy and oily foods, as well as outside junk food. - Follow a regular exercise regimen for 30 minutes per day.
21 December 2025	Menstrual flow improved compared to baseline assessment.
30 December 2025	Follow-up transvaginal ultrasonography revealed a dominant follicle measuring 20 × 15 mm in the right ovary with free fluid in the pouch of Douglas, suggestive of ovulation (Figure No.7).
February 2026	Missed menstrual cycle observed during follow-up.
21 February 2026	Urine pregnancy test positive, confirming natural conception.
08 April 2026	USG-Obstetrics, Dichorionic diamniotic twin pregnancy of 11 weeks 6 days (Figure No.8).

Figure No.1 – Serum AMH report before the treatment (26/11/2025)



Figure No.2 – Follicle Stimulating Hormone report before treatment (26/11/2025)



Figure No.3 – Luteinizing Hormone and Prolactin Hormone report before treatment (26/11/2025)

DIAGNOSTIC REPORT

PATIENT NAME: [REDACTED] AGE/SEX: 31 Years Female
 ACCESSION NO: 0081Y033005
 PATIENT ID: 0081Y033005
 RECEIVED: 26/11/2025 15:59:13
 REPORTED: 26/11/2025 19:00:52

Test Report Status: Final

Test Report Status	Final	Results	Biological Reference Interval	Units
LUTEINIZING HORMONE (LH)	6.20		Follicular phase: 2.4 - 12.6 Luteal phase: 1.0 - 11.4 Mid Cycle phase: 14 - 95.6 Postmenopausal: 7.70 - 58.5	mIU/mL
PROLACTIN SERUM	16.00	4.79 - 23.3		ng/mL

Interpretation(s):
 Prolactin is a protein hormone secreted by anterior pituitary gland (adenoma in pregnancy). The secretion is regulated physiologically by inhibitors & releasing factors of hypothalamus. The main physiological action of prolactin is the stimulation & maintenance of lactation in women. Hyperprolactinemia inhibits gonadotropin secretion & can produce hypogonadism in men & women.

NOTE: Various degree of physiological lesions can give rise to elevated prolactin levels. Due to its cyclic secretion, high prolactin values should be confirmed by performing the test on a pooled serum sample from specimens drawn at 4 to 20 minutes interval.

MALE: Hyperprolactinemia in males may be associated with decreased libido, impotence, infertility, gynaecomastia.

FEMALE: Prolactin secretion from pituitary shows significant diurnal, episodic & cyclical variations. Following is a suggested approach to hyperprolactinemia as follows:

Prolactin Level	Interpretation	Remarks, often associated with
< 25 ng/mL	Normal Prolactin secretion	Physiological conditions like exercise, pregnancy, lactation etc. may not be associated with clinical hyperprolactinemia and needs review after a month.
25 - 100 ng/mL	Moderate Prolactin Excess	clinical hyperprolactinemia, short luteal phase, oligomenorrhea.
Above 100 ng/mL	Marked prolactin excess	clinical hyperprolactinemia, oligomenorrhea, amenorrhea, galactorrhea.
Above 200 ng/mL	Marked prolactin excess	Primary adenoma requiring further workup.

Reference: 1. Diagnosis & Treatment of hyperprolactinemia: The endocrine society clinical practice guidelines, 2011. 2. Diagnosis & Management of hyperprolactinemia: Canadian Medical Association (CMA), Sept 15, 2005 (1000).

TESTOSTERONE TOTAL SERUM
 TESTOSTERONE, TOTAL: 46.90
 Biological Reference Interval: 8.40 - 48.10
 Units: ng/dL

TESTOSTERONE, TOTAL
 Biological Reference Interval: 8.40 - 48.10
 Units: ng/dL

Page 4 of 6

Figure No.4 – Follicular Ultrasonography (TVS) report before treatment (02/12/2025)

PRIMA DIAGNOSTICS
 PRIMA DIAGNOSTICS
 PRIMA DIAGNOSTICS

Name: [REDACTED] Age/Sex: 32Y / F
 Patient ID: PD/120591
 Visit ID: 23PR1000114
 Visit Date: 02-12-2025

FOLLICULAR ULTRASONOGRAPHY (TVS)

URINARY BLADDER shows normal shape and wall thickness. It has clear contents. No evidence of diverticula.

UTERUS is anteverted and has normal shape and size. It has uniform myometrial echopattern. Endometrial echo is of normal thickness - 5.8 mm. Uterus measures as follows: LS: 5.4 cms AP: 2.8 cms TS: 3.6 cms.

OVARIES are normal size, shape and echotexture. Ovaries measure as follows: Right ovary: 2.8 x 2.2 cms. Left ovary: 2.9 x 2.5 cms. FOD & adnexa are free.

LMP: 23-11-2025

Day	Right ovarian follicle (mm)	Left ovarian follicle (mm)	Endometrial thickness (mm)	FOD fluid	Remarks
10th	DF 1-11.1 x 10.4	DF 1-10.8 x 10.3	5.8 mm	---	---
13th	12.1 x 11.6 mm	10.8 x 10.3	5.8 mm	---	Triple layer endometrium

DR. H T GURURAJ RAO **DR. L S PRAVEEN** **DR. AMITH R**
 CONSULTANT RADIOLOGISTS

No. 97, Doddakallanahalli, Opp. Bharat Petrol Pump, Kanakapura Main Road, Bengaluru - 560 062, Ph: 080-2356 0655 / 4638 2355
 Corp. Office: 83/1D, 8th Main Road, 3rd Block, Jayanagar, Bengaluru-560011. Q: +91 95134 78777
 LLPIN: AIG - 9559 www.primadiagnostics.com

Figure No.5 – Hysterosalpingogram report before treatment (01/04/2025)

VIJAYA DIAGNOSTIC CENTRE
 Plot No.2/A, Street No. 1, Kalamyaya Nagar, Halasahalli, Hyderabad, Telangana 500007

Name: [REDACTED] Age/Gender: 33Y / Female
 Registration ID: 25817002174
 Ref. By: [REDACTED]
 Patient ID: 25817002174

DEPARTMENT OF RADIOLOGY AND IMAGING SCIENCES
HYSTEROALPINGOGRAM (HSG)

History: Primary infertility

Findings:
 HSG performed under aseptic precaution. Uterus appears normal. Both fallopian tubes are visualized till fimbrial end and appear within normal limits. Bilateral spillage of contrast medium seen in the peritoneal cavity.

Impression:
 * Essentially normal study with bilateral peritoneal spillage of contrast into the peritoneal cavity.
 * Both fallopian tubes are patent.

For clinical correlation,
 Dr. Loka Pavani K
 MBBS, DMRD
 Registration Number: 99451
 01st Apr 2025 10:41

Study Sharing Link: <https://sharex.com/54b7mde>

Customer Care ☎: 9240 222 222

Figure No. 6 – Semen Analysis report (26/06/2024)

VIJAYA DIAGNOSTIC CENTRE
 Opp. Metro Pillar No. A1/15th, Indira Nagar, Dhonekhan, Hyderabad - 500019

Name: [REDACTED] Age/Gender: 30 Years / Male
 Registration ID: 240120084394
 Ref. By: [REDACTED]
 Sample Type: Semen

Registered on: 26-Jun-2024 10:37
 Collected on: 26-Jun-2024 11:04
 Released on: 26-Jun-2024 12:46
 Printed on: 26-Jun-2024 13:02
 Regn Centre: Dhonekhan - 12

TEST REPORT

SEMIN ANALYSIS

TEST NAME	RESULT	UNIT	BIOLOGICAL REFERENCE INTERVAL
Physical Examination	1.0	mL	> 1.4 mL
Volume	Greyish White		Greyish White
Colour	Viscid, Opaque		Viscid, Opaque
Viscosity	30 minutes		< 60 min
Liquefaction Time	8.0	sec	7-12
Biochemical Examination	Present		Present
Fructose (Qualitative)	29.6	millions/mL	>= 16
Microscopic Examination	30	millions/jaculate	>= 39
Sperm Concentration	1.9	M/mL	>= 0.2
Total Sperm Count	Absent		Absent
Functional Sperm Concentration			
Agglutination			
Motility			
a) Total Motility	54	%	>= 42%
b) Progressive Motility	37	%	>= 30%
Rapidly Progressive	6	%	NA
Slowly Progressive	31	%	NA
c) Non Progressive Motility	17	%	NA
d) Immotile	48	%	NA
Velocity	30	mic/sec	>= 5mic/sec
Morphology			
a) Normal Forms	7	%	>= 4%
b) Abnormal forms	93	%	NA
Sperm Viability	94	%	>= 54%
a) Live Sperms	6	%	NA
b) Dead Sperms			
Other Findings			
Pus cells	1-2	cells / HPF	0-1
Epithelial Cells	0-1	cells / HPF	1-2
Spermatogenic Cells	1-2		NA
RBC	Nil		NA
Impression			
Method			

Remarks: Advise follow up in view of Hypospermia.
 * Suggested Clinical Correlation, if Necessary Kindly Discuss with signatory

Customer Care ☎: 9240 2100 0000

Figure No. 7 – USG Pelvis (TVS) report after treatment (30/12/2025)

مجموعة برايم للرعاية الصحية
PRIME HEALTHCARE GROUP

Report: USG - PELVIS (TVS)

Uterus: The uterus is anteverted, normal in size and shape and demonstrates smooth contour with normal echotexture measuring 7.1 x 4.6 x 2.9 cm with a midline uninterrupted endometrial echo measuring 7.4 mm. No focal myometrial mass is seen.

Ovaries: Both ovaries appear normal in size, shape and echotexture. Multiple follicles are seen in both ovaries, with a single dominant follicle measuring 20 x 15 mm in the right ovary. Right ovary measures 3.2 x 1.9 cm. Left ovary measures 2.5 x 1.2 cm. No adnexal mass is seen on either side.

Cervix is showing a solitary nabothian cyst.

Small amount of free fluid is seen in POD - reactionary.

Impression: Normal ultrasound of the pelvis. Clinical correlation is requested.

Reported By: Dr. Shalini Mathew Specialist Radiologist

Reported at: 30-Dec-2025 3:32:24 PM | Prime Medical Centre | Bur Dubai
Performed on: 30-Dec-2025 | Site ID:23

Figure No. 8 – USG-Obstetrics scan report after treatment (08/04/2026)

مجموعة برايم للرعاية الصحية
PRIME HEALTHCARE GROUP

DEPARTMENT OF RADIOLOGY AND IMAGING

Report: USG - OBSTETRICS (NTD-TWINS)

Report: LMP - January 14, 2026 GA(LMP) - 12 weeks 0 day EDD(LMP) - October 21, 2026
Foetus A - GA (USG) - 11 weeks 6 days EDD (USG) - October 22, 2026
Foetus B - GA (USG) - 11 weeks 6 days EDD (USG) - October 22, 2026

Two live fetuses are noted in two different gestational sacs. Fetal movements and pulsations are identified in both twins.

Fetal Biometry:
Foetus A: In the lower uterine segment towards right side. CRL - 5.1 cm corresponding to 11 weeks 6 days. FHR - 160 beats per minute. Nuchal translucency thickness measures 1.3 mm. Nasal bone is seen. Two arms and legs seen. Developing placenta is seen posteriorly.
Foetus B: In the upper uterine segment towards left side. CRL - 5.1 cm corresponding to 11 weeks 6 days. FHR - 167 beats per minute. Nuchal translucency thickness measures 1.3 mm. Nasal bone is seen. Two arms and legs seen. Developing placenta is seen posteriorly.
Cervix - 3.8 cm. The internal os is closed.

Impression: 1. Dichorionic diamniotic twin gestation. 2. Twin live intrauterine fetuses of gestational age Foetus A - 11 weeks 6 days with USEDD of October 22, 2026 (+/- 1 week). Foetus B - 11 weeks 6 days with USEDD of October 22, 2026 (+/- 1 week). Clinical correlation is requested.

This is a system generated report and does not require any signature

PRIME MEDICAL CENTER BUR DUBAI LLC
Saeed Bin Thani Bldg. 5th, Khalifa Bin Zayed St. Umm Hurair 1st
7162, Bur Dubai, Dubai - UAE.
+971 4 357 0033 +971 4 357 0055
burdubai@primehealth.ae www.primehealth.ae
Limited Liability Company - Free Zone Capital AEO 100/2009 (Reg. No. 1110034) License No. 636009
A member of Prime Healthcare Group LLC

Figure No. 9 – Serum AMH report after the treatment (16/01/2026)

Premier Diagnostic Center LLC
P/F/AL KHAFJA ST. DUBAI, P.O. BOX 125111, SALAHUDDIN ST. DUBAI - UAE
Telephone: 04-7270200 Fax: 04-7271549 E-mail: info@premierdiagnostics.ae

RG No: 1 RG2843353 LAB Ref No: 1 BDL2602221
Name: 1 [REDACTED] Registered Dt: 15/01/2026 - 09:53
Age/Gender: 1 31(Y) / Female Collection Dt: 15/01/2026 - 10:39
Referral By: 1 [REDACTED] Lab Received Dt: 15/01/2026 - 14:26
Sample: 1 SERUM Authorized Dt: 16/01/2026 - 08:51
Emirates ID: 1 784-1994-7442963-8 Passport: 1 Z5984484

Investigation Result Unit Reference Range

CLINICAL CHEMISTRY
ANTI MULLERIAN HORMONE (AMH) 1 0.07 ng/mL
The Anti-Müllerian Hormone (AMH) is measured by the Elecsys AMH platform. Measurement of AMH is suited for monitoring changes in ovarian reserves from birth to menopause and is useful for estimation of ovarian reserve in infertile women. The result to be correlated clinically, and the value must be interpreted in the context of the patient's clinical history. The reference interval provided by the manufacturer following evaluation of apparently healthy women not taking any hormonal contraceptives. The reference interval represents the 50th and 90th percentile values.

12-17 years: 0.57 - 7.60
18-24 years: 0.33 - 6.00
25-29 years: 0.26 - 5.70
30-34 years: 0.30 - 5.35
35-39 years: 0.17 - 2.84

Authorized By: 1 Charlene Gloracimo Osin 1 Sr. Laboratory Technician 1 Lic No:2009 8190 Page 1 of 1
69517

DISCUSSION: The present case demonstrates the potential role of a comprehensive Ayurvedic treatment approach in the management of infertility associated with diminished ovarian reserve. From an Ayurvedic perspective, *Apraja Vandhyatwa* associated with *Artava Kshaya* is managed by correcting impaired *Agni*, pacifying *Vata Dosha*, and improving the

nourishment of *Artavavaha Srotas*. *Deepana-Pachana* enhances digestion and metabolism, *Snehapana* with *Phala Ghrita* provides *Brimhana* and supports reproductive tissues, *Virechana Karma* facilitates *Dosha Shodhana*, and *Kala Basti* with *Brihatyadi Yapana Basti* and *Sahacharadi Taila* helps regulate *Apana Vata*, which plays a key role in ovulation

and conception. These interventions may have contributed to improved follicular maturation and ovulation observed in this patient.

A major strength of this report is the availability of objective clinical evidence, including low serum Anti-Müllerian Hormone (AMH) levels, previous failed intrauterine insemination (IUI) and in vitro fertilization (IVF) attempts, and ultrasonographic documentation of follicular maturation and ovulation following treatment. The achievement of natural conception after intervention further strengthens the clinical significance of this case. However, this report is limited by its single-case design, lack of long-term follow-up, and absence of post-treatment AMH assessment. Therefore, the findings cannot be generalized without further clinical studies.

Discussion of Relevant Medical Literature

Anti Mullerian Hormone (AMH) is produced by the preantral and small antral follicles and can be assessed in serum. As the number of these follicles declines with declining ovarian reserve, levels of AMH will decline. There is linear correlation between levels of AMH and ovarian reserve.⁷⁻¹¹ The AMH levels for normal fertility are 15.7-28.6 pmol/l. Low fertility range is 2.2-15.7pmol/l ^[4].

In Ayurveda, the direct concept of AMH is not specifically mentioned in the classical texts. However, it may be interpreted through the concept of *Artava*. The term *Artava* has been used in different contexts, such as menstrual blood (*Shonita*) ^[5], ovum (*Stree Beeja*) and also as the seventh *Dhatu* in females according to Ayurvedic interpretation ^[6].

Chakrapani Datta, in his commentary, has explained that the *Artava* which becomes manifest at the age of 12 years is actually formed during embryonic life itself ^[7]. This reference may indirectly indicate the concept of hormones, particularly ovarian hormonal function and reproductive potential.

In the context of reduced ovarian reserve or low AMH, it can be correlated with *Artava Kshaya*, wherein all three forms of *Artava* are affected: *Srava-roopi Artava* (menstrual function), *Beeja-roopi Artava* (ovum), and *Dhatu-roopi Artava* (reproductive tissue essence). This impairment may manifest clinically as low AMH levels and diminished ovarian reserve.

Factors influencing low AMH

Modern lifestyle factors further contribute to declining ovarian reserve. Increased consumption of junk and processed foods, exposure to environmental pollutants, chemicals, cosmetics, and pesticides, along with night-shift work and chronic stress, may adversely affect ovarian function, hormonal balance, and oocyte quality ^[8]. These factors were present in this patient and may have contributed to the diminished ovarian reserve reflected by low serum AMH levels. However, although AMH is an established marker of ovarian reserve, spontaneous conception may still occur in women with low AMH, as fertility depends on multiple factors including oocyte quality, ovulation, tubal patency, endometrial receptivity, and sperm function.

From an Ayurvedic perspective, these lifestyle factors can be considered etiological factors for *Artava Kshaya*, an *Upadhatu* of *Rasa Dhatu*. Proper formation of *Artava* depends on balanced *Agni* and

unobstructed *Srotas*. In the present case, *Abhishyandi Ahara* (excessive intake of oily, fried, and junk food), *Vishamashana* (irregular eating habits), *Adhyashana* (overeating), *Avyayama* (lack of exercise), *Asyasukha* (sedentary lifestyle), and psychological stress may have led to *Agni Vaishamya* and *Rasa Dhatu Kshaya*, ultimately contributing to *Artava Kshaya*. This Ayurvedic interpretation may explain the diminished ovarian reserve observed in this patient, while recognizing that successful conception depends on multiple reproductive factors beyond AMH alone.

DISCUSSION

Role of *Shodhana* therapy :

1. *Deepana Pachana* with *Chitrakadi Vati*: *Chitrakadi Vati* acts as *Agnideepaka*, *Aamapachaka* [9] the *Tikshna* and *Ushna* properties of *Chitraka*, *Pippali*, and *Maricha* are *Vatakapahara*. *Lekhana* and *Srotoshodhaka* Properties will help in clearing obstructions in *Artava Vaha Srotas*, normalises the functions of *Artava*.

2. *Snehapana* with *Phala ghrita*: *Phala Ghrita* is known for its *Brihmana*, *Vrishya*, and *Rasayana* properties. It is also described as “*Pumsavanam Param*”, indicating its superior role in *Garbhashthapana* (promotion and maintenance of conception). The classical reference “*Pushpe Peetam Phalaya Yat*” [10] signifies that consumption of this medicated ghee supports and facilitates conception.

These effects can be attributed to its *Madhura Rasa* and *Guru*, *Snigdha*, and *Sheeta Guna*, along with its *Vata-Pitta Shamana* action, which helps in restoring normal ovarian function. *Phala Ghrita* also acts as a *Garbhashaya Rasayana*,

promoting the regeneration and rejuvenation of reproductive tissues.

3. *Sarvanga Abhyanga Bashpa Sweda* with *Bala Ashwagandha Taila*:

Bala Ashwagandha Taila main indications are *Sarvavatroga hara*, *Pushtikaram Param* [11]. Because of its *Vata-Pittahara*, *Rasayana*, *Shothahara* (anti-inflammatory) properties, it is primarily used for strengthening the tissues, reducing inflammation, and promoting healthy cellular function.

4. Role of *Virechana*.

- In *Kashyapa Samhita Virechana* is said to improve the efficacy of *Beeja* (*Beejam Bhavati Karmukam*) [12]. This may have contributed to improved follicular development, as evidenced by the formation of a dominant follicle and subsequent ovulation, ultimately aiding in conception.

- *Trivrut* is *Sukhavirechaka*, *Kaphapittaprashamana*, *Vatanulomana* [13] Regulates *Apana Vata*, which governs ovulation and menstruation.

- *Virechana Karma* may help in correcting low AMH by eliminating accumulated toxins, thereby reducing inflammation, oxidative stress, and pro-inflammatory cytokines. *Virechana Karma* may contribute to improved reproductive health through correction of metabolic dysfunction and reduction of systemic stress, which are known to influence reproductive physiology. This might supports proper folliculogenesis, improves ovarian function, and enhances the chances of conception [14].

5. Role of *Basti*

- *Basti* does *Vatanulomana*, *Rajodoshahara*, best in *stree Vandhyatwa* [15], regulates the *Apana Vata*-

As *Vata dosha* is mainly responsible for *Vandhyatwa*.

- **Brihatyadi Yapana Basti** - Ingredients such as Brihati, *Kantakari*, *Shatavari* and *Guduchi* have the properties like *Vajeekarana*, *Garbhasthapana*, they are recommended in *Rajorodha*, *Yoniroga*, and *Vandhyatwa*.^[16] Acharya Charaka gives detailed description about *Yapana Basti* in *Siddhi Sthana Naarinam Prajaatanaam Naraanam Chaapyapatyadah*

- **Anuvasana Basti** - Acharya Kashyapa described *Anuvasana Basti* in *Siddhithana* as: *Alpa Pushpanashta Beejaakarmanyabeejaparita.....Anuvasya Iti Yoni Prasadnam Dhanyam Vandhyanam Api Putradam*^[17]

- **Sahacharadi Taila Anuvasana Basti** known for its *Vata-Kaphahara*, *Shothahara*, *Srotoshodhaka* and *Rasayana* properties ^[18]. Clearing the obstructed *Srotas* and promoting healthy tissue function. Also it is best used in *Yoniroga* (*AH. Chi. 21/67-69*).

- *Basti* therapy exerts its action through both local and systemic mechanisms. The administration of medicated enema gently stimulates and stretches the rectal wall, activating nerve endings that transmit calming signals to the central nervous system and pelvic organs. This neural modulation improves autonomic balance by enhancing parasympathetic activity and reducing sympathetic over activity. Consequently, it helps regulate the hypothalamic–pituitary–ovarian (HPO) axis by normalizing gonadotropin-releasing hormone (GnRH) pulsatility, leading to balanced secretion of FSH and LH. This coordinated hormonal regulation supports follicular development,

ovulation, and overall reproductive function ^[19].

Role of Shamanoushadis:

1)Pushpadhanwa Rasa^[20]: *Pushpadhanwa* ingredients are *Shuddha Parada* (Purified Mercury), *Shuddha Naga Bhasma* (Purified Lead Calx), *Shuddha Abhraka Bhasma* (Purified Mica Calx), *Shuddha Vanga Bhasma* (Purified Tin Calx), *Dhattura* (*Datura metel* L.), *Bhanga* (*Cannabis sativa* L.), *Yashtimadhu* (*Glycyrrhiza glabra* L.), *Shalmali* (*Bombax ceiba* L.), and *Nagavalli* (*Piper betle* L.). It possesses *Madhura-pradhana Rasa*, *Sheeta Veerya*, and *Guru Guna*. The *Bhasmas* present in this formulation exhibit *Tridosha Shamana*, along with *Deepana* and *Pachana* properties. Through these actions, it helps correct *Agnimandya*, which is a key factor in the *Samprapti*.

As a result, *Dhatvagni* is normalized, leading to the proper formation of *Rasa Dhatu*. This, in turn, ensures the adequate production of its *Upadhatu*, *Artava*. Additionally, *Pushpadhanwa Rasa* is believed to have a specific affinity for the *Prajanana Sansthana* (reproductive system), thereby directly supporting reproductive function.

2)Stree Vyadhihara Rasa: *Stree Vyadhihara Rasa* is available as a proprietary medicine it contains *Sootikabharana Rasa*, *Latakaranja Beeja*, *Shatahva Beeja Churna*, *Karpasamoola Churna*, *Shunti*, *Maricha*, *Pippali*. *Sootikabharana Rasa* contains *Swarna*, *Rajata*, *Tamra Pravala*, *Shudha Parada*, *Abhraka* and so on. *Abhraka* and *tamra bhasmas* help in *kapha chedana* along with *Vata anulomana* while *rajata bhasma* does *lekhana* of *doshas*. *Swarna* and *Pravala* helps in balancing the *Teekshnata* of other

drugs. *Latakaranja* having *Laghu Ruksha Guna*, *Tikta Kashaya Rasa*, does *Kaphachedana*. *Shatahwa Beeja* helps in *Rajopravrutti*.

3)Vajiakarana Rasayana: *Vajeekarana Rasayana* is available as a proprietary medicine it contains *Kapikachchu*, *Ashwagandha*, *Shatavari*, *Vidarikanda*, *Musali kanda*, *Lavanga*, *Pippali*, *Akarakarabha*, *Gokshura*, *Ikshurasa*, *Khanda Sharkara*, *Ghritha*.

The formulation may act by improving *Agnideepana* and *Pachana*, thereby correcting *Agnimandya* and facilitating proper *Dhatvagni* function. This leads to enhanced *Rasa Dhatu* formation and subsequent nourishment of *Artava Dhatu*, which is essential for folliculogenesis and ovarian function. The *Rasayana* and *Brihmana* properties promote regeneration and rejuvenation of reproductive tissues.

Additionally, ingredients like *Ashwagandha* and *Kapikachchu* act as adaptogens, reducing stress and modulating the neuro-endocrine system, thereby supporting the hypothalamic–pituitary–ovarian (HPO) axis [21]. *Shatavari* and *Gokshura* contribute to *Artava Janana* and hormonal balance, while *Ghritha* enhances bioavailability and facilitates deeper tissue nourishment. Ultimately improving ovarian reserve, follicular development, and reproductive potential in patients with low AMH.

CONCLUSION:

This case report demonstrates that a comprehensive Ayurvedic approach, including *Shodhana* and *Shamana Chikitsa*, can effectively improve ovarian function and facilitate natural conception in a patient with low AMH, even after failure of IVF treatment. The interventions helped in

restoring *Agni*, correcting *Dosha* imbalance, and promoting *Artava Dhatu* formation. These findings suggest that Ayurveda may offer a promising, non-invasive therapeutic option in managing infertility associated with diminished ovarian reserve. However, further large-scale studies are required to validate these outcomes.

Patient Perspective:

The patient expressed high satisfaction with the treatment outcome, particularly as she was able to achieve natural conception after previous unsuccessful IVF attempts. She reported a significant improvement in her overall well-being, menstrual pattern, and stress levels during the course of treatment. The non-invasive nature of Ayurvedic management and avoidance of further assisted reproductive procedures enhanced her confidence and psychological comfort. She expressed gratitude for achieving conception through a natural approach.

Key Message and Takeaway Lesson:

This approach highlights Ayurvedic efficacy in treating root causes via *Dosha* balance and *Srotoshodhana*, promoting holistic women's health care integration.

REFERENCES:

- 1) Dutta D C. Dysmenorrhea and Other Disorders Of Menstrual Cycles. In: Textbook of Gynecology. Edition 8, New Delhi: Jaypee Brothers; 2020. p.150.
- 2) Dutta D C. Infertility. In: Textbook of Gynecology. Edition 8, New Delhi: Jaypee Brothers; 2020. p.228.
- 3) Dutta D C. Neuro endocrinology in relation to reproduction. In: Textbook of Gynecology. Edition 8, New Delhi: Jaypee Brothers; 2020. p.75.
- 4) Arora M, Konje JC, editors. *Recurrent Pregnancy Loss*. 2nd ed. New

Delhi: Jaypee Brothers Medical Publishers; 2007. Chapter: Declining ovarian reserve function; p. 122.

5) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Chikitsa Sthana; Yoni Vyapat Chikitsa Adhyaya: Chapter 30, Verse 26. Varanasi: Chowkhambha Orientalia, 2015; p.636.

6) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Shareera Sthana; Atulya Gotriya Shareera Adhyaya: Chapter 2, Verse 14. Varanasi: Chowkhambha Orientalia, 2015; p.303.

7) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Shareera Sthana; Chapter 4, Verse 30. Varanasi: Chowkhambha Orientalia, 2015; p.320.

8) Danappagoudar M, Patil SS. Effective Ayurvedic management of infertility due to low AMH in elderly women - case study. *J Ayurveda Integr Med Sci* [Internet]. 2023 May 26 [cited 2026 Apr 30];8(4):211–215. Available from: <https://jaims.in/jaims/article/view/2417> doi:10.21760/jaims.8.4.35.

9) Kaviraj Pulinkrishna Sen Kavibhushan, editor. Bhaishaja Ratnavali, Grihani Rogadhikarah: Verse 4. Varanasi: Krishnadas Academy, 2001; p.343.

10) Vagbhata. *Ashtanga Sangraha*. Hindi translation by Vidyalkara A. Varanasi: Chaukhambha Sanskrit Sansthan; Uttaratantra, Chapter 39, Verse 81; p. 340.

11) Dr K Nishteswar, editor. Sahasra Yogam, Taila Prakarana :Chapter 3, Verse 13. Varanasi: Chowkhambha Sanskrit Series, 2008; p.117.

12) Prof P. V Tiwari, editor. Kashyapa Samhita, Siddhi Sthana: Chapter 2, Verse 5-7. Varanasi: Chaukhambha Vishwabharati, 2002; p. 266.

13) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Kalpa Sthana; Chaturangula Kalpa Adhyaya: Chapter 8, Verse 13. Varanasi: Chowkhambha Orientalia, 2015; p.674.

14) Chaturvedi A, Rao PN, Kumar MA, Ravishankar B, Rao N, Ravi M. Effect and mechanism of Virechana Karma (therapeutic purgation) over fructose-induced metabolic syndrome: An experimental study. *J Evid Based Complementary Altern Med*. 2016;21(3):194–201. doi: 10.1177/2156587215596283. Epub 2015 Jul 22. PMID: 26207023.

15) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Siddhi Sthana Bastisutriyam siddhi Adhyaya,: Chapter 3, Verse 38-42. Varanasi: Chowkhambha Orientalia, 2015; p.696.

16) Vaidya Yadavji Trikamji Acharya, editor. Charaka Samhita of Agnivesha, Siddhi Sthana; Uttara Basti Siddhi Adhyaya: Chapter 12, Verse 4. Varanasi: Chowkhambha Orientalia, 2015; 732.

17) Nepal Rajaguru Pandit Hemaraja Sharma, Commentary Vidyotini on Kashyapa Samhita, Siddhi Sthana, Panchakarmiya Siddhi Adhyaya: Chapter 7, Verse 11. Varanasi: Chaukhambha Sanskrit Sansthan, 2010; p. 167.

18) Vaidya Bhishagacharya Harishastri Paradakara, editor. Ashtangahrdaya of Vagbhata, Chikitsa Sthana; Chapter 21, Verse 67-69. Varanasi: Chowkhambha Orientalia, 2019; p.727.

19) Rawat N, Roushan R. A critical appraisal on the mechanism of action of Basti procedure of Ayurveda in perspective of modern physiology. *Int J Res Ayurveda Pharm*. 2020;11(5):154–158. Available

from:

<https://www.researchgate.net/publication/345136575>doi:10.7897/2277-

4343.1105161.

20) Deshpande D, Asokan V. A review on Pushpadhanva Rasa in Vandhyatva (anovulatory factor of infertility). *World J Pharm Life Sci* [Internet]. 2019 [cited 2026 Apr 30];5(8):221–224. Available from: https://www.wjpls.org/home/article_abstract/1489

21) Speers AB, Cabey KA, Soumyanath A, Wright KM. Effects of *Withania somnifera* (Ashwagandha) on stress and the stress-related neuropsychiatric disorders anxiety, depression, and insomnia. *Curr Neuropsychopharmacol* [Internet]. 2021 [cited 2026 Apr 30];19(9):1468–1495. Available from:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC>

[8762185/](https://doi.org/10.2174/1570159X19666210712151556)

doi:10.2174/1570159X19666210712151556.

Corresponding Author: Dr. Chetana Patil, Post Graduate Scholar, Department of Prasuti Tantra and Stree Roga, Sri Sri College of Ayurvedic Science and Research, Bengaluru

Email: drchetana.gyn@gmail.com

Source of support: Nil

Conflict of interest: None Declared

Cite this Article as: [Chetana Patil, Rachana H V: Ayurvedic Intervention in Primary Infertility Associated with low Anti-Müllerian Hormone (AMH) : A Case Report] *www.ijaar.in: IJAAR VOL 7 ISSUE 8 MAY-JUNE 2026 Page No: -447-459*