

Ayurvedic Management in Premature Ovarian Insufficiency – A Case Study

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Abstract—Premature ovarian insufficiency (POI) also called as Premature ovarian failure is defined as failure of ovarian function before the age of forty years. Prevalence of POI is estimated as 1 % of female population¹. It can be occurred by depletion or loss of ovarian reserve and residual follicles due to hypoestrogenic condition. Patient may be presented with history of amenorrhoea, menstrual abnormalities, infertility which can ultimately affects their quality of life. It can be occurred either due to impaired germ cell migration during intrauterine period or by accelerated germ cell apoptosis leading to no follicle or only a few follicles left behind in ovary. Here a female of 31 years old with POI features of absence of menstruation, hot flashes etc was managed with Ayurvedic treatment.

Keywords— Premature ovarian insufficiency; POI; Artavakshaya.

I. INTRODUCTION

Premature ovarian insufficiency or failure (POI) is defined as failure of ovarian function before the age of forty years. Prevalence of POI is estimated as 1 % of female population¹. In most cases, etiopathology is considered idiopathic or spontaneous as the exact cause is still obscure. The condition was previously referred as premature ovarian failure, premature insufficiency, premature menopause, primary ovarian failure or hypergonadotropic hypogonadism and also misnomer as gonadal dysgenesis^{2,3}. Patients may shows signs and symptoms resembling to that of menopausal symptoms including absence of menses, vaginal dryness, hot flashes, profuse sweating, dyspareunia, loss of libido, lack of concentration etc due to estrogen deficiency. Hormonal imbalances and menopausal symptoms impacts on physical as well as psychological status of women affects her quality of life. Causes of POI may include genetic, autoimmune, metabolic, infectious, environmental and iatrogenic factors.

II. METHODOLOGY

A. Case report

Presenting complaints

A female of 31 years old attended the OPD of PNNM Ayurveda Medical College, Cheruthuruthy, with complaints delayed menstruation since 4 months. She was also complained of having mood swings, hot flashes, vaginal dryness, dyspareunia, loss of libido, heaviness in the lower abdomen, feeling of stretching of skin over the abdomen and sudden weight gain since last 1 year.

Menstrual & Obstetric history: She attained her menarche at the age of 14 years. Since then she had regular cycles with an interval of 28 – 30 days with a duration of 7 days. She conceived naturally in the year 2016 and was normal vaginal

delivery. Both gestational period and postnatal period were uneventful. Since 2019 February there was irregularity in cycles with interval varying from 2-4 months.

LMP was on 06.02.23, PMP on 01.12.22

- Family history from the paternal side revealed a case of POI at the age of 38 years
- Personal history: Undergone through lots of emotional trauma since last 2 years.

Appetite : less

Bowel : Constipated (Saama), Severe bloating present, easily gets indigestion

Urine : Normal as per adequate water intake

Sleep : Disturbed

Wt : 64 kg, BMI : 27.7 kg/m²

B. Clinical findings

P/V examination : Uterus – NS, AV

CMT – Absent

Fornices – free, No tenderness.

P/S examination : no discharge, no prolapse,

no abnormal mass found

Cervix : normal, no erosion

Criteria of POI such as age < 40 years & amenorrhoea since 4 months were satisfied in this case.

Investigations (before treatment) :

- USG Abdomen and pelvis on 16.05.2023 –

Liver mildly enlarged in size (16.5 cm) and shows fatty infiltration. Uterus anteverted, normal in size measures 6.8 x 3.2 x 4.3 cm. Small intramural fibroid in the left lateral wall measuring 1.1 x 1.1 cm. ET – 4 mm. Ovary – both ovaries smaller in size. Rt ovary volume 2ml, Lft ovary volume 2.2 ml.

- Hormonal Assay on 31.05.2023

FSH – 80 mIU/mL

LH – 58.99 mIU/mL

C. Therapeutic approach :

While she came to our OPD she had severe indigestion associated with loss of appetite, bloating, severe constipation, irregular menstruation (absence of menstruation since last 4 months) associated with hot flashes, dyspareunia, vaginal dryness, weight gaining, disturbed sleep, mental stress and loss of libido since 1 year.

Treatment has been done as 3 phases in which first phase treatment planned to correct the agnimandya and apanavaata vaigunya.

Phase 1 (From 29.05.23 for 2 weeks)

1. Guluchyadi kashaya 15 ml kashaya with 45 ml lukewarm water twice daily before food
2. Abhayarishta & Kumaryasava – mixed together – 30 ml twice after food
3. Hinguvachadi gulika 1-0-1 with kashaya

After taking internal medications, she was started getting bowel regularly, started feeling good appetite and bloating relieved completely.

Phase 2 – Sodhana chikitsa

Vamana

- Snehapana with Mahakalyanaka ghrita for 7 days from 13.06.23 to 19.06.23
- Abhyanga and sveadana for 1 day on 20.06.23
- Vamana on 9th day on 21.06.23

Samsarjanakrama followed

On 29.06.23 (8th day after vamana) she got her menses with normal flow for 7 days duration. Patient felt absolutely fine during menstrual days. Symptoms such as hot flashes, dyspareunia, loss of libido and anxiety were subsided. Started getting sound sleep. There was loss of 2 kg after sodhana therapy.

Vasti

After 1 week gap, from 06.07.23 to 13.07.23

- Yogavasti (Snehavasti with Mahanarayana taila and Erandamooladi kashayavasti)

D. Follow up and Result

Phase 3 (Follow up medicines for 2 months from 15.07.23 till 15.09.23)

1. Kalyanaka kashaya (7.5 ml) with Kulathadi kashaya (7.5 ml) – together 15 ml with 45 ml lukewarm water twice daily before food
2. Abhayarishta & Kumaryasava – mixed together – 30 ml twice after food

After 1 month, she was advised to take medicines once daily. As she was getting regular cycles in the in the subsequent months, all the internal medicines were substituted with kulathadi modaka (a combination of churna of tila, kulatha mixed with satapushpa taila and guda) thrice a week.

The cycles were found normal with regular interval and flow till date

Investigations (After treatment) :

Blood test on 04.09.2023

- Hb – 12.1 gm/dl
- Hormonal Assay on 04.09.2023
- FSH – 27.12 mIU/mL

- LH – 16.85 mIU/mL

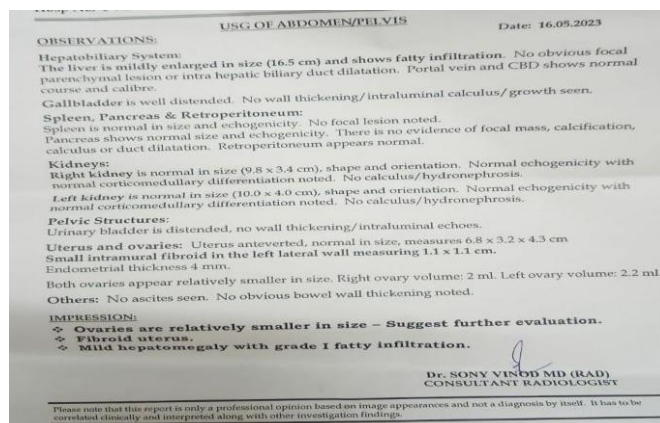


Fig. 1 : USG Before treatment

Investigation	Observed Value	Unit	Biological Reference Interval
FSH - Follicle Stimulating Hormone (Serum,ECLIA)	89.99	mIU/mL	Normal Menstruating Women: Follicular Phase : 1.4-9.9, Mid Cycle Phase : 0.2-17.2, Luteal Phase : 1.1-9.2, Post Menopausal : 19.3-100.6
LH-Luteinising Hormone (Serum,ECLIA)	58.99	mIU/mL	Normal Menstruating Women: Follicular Phase : 1.7-15, Mid Cycle Peak : 2.9-56.6, Luteal Phase : 0.6-16.3, Post Menopausal : 14.2-52.3

Fig. 2 : Hormonal assay before treatment

Investigation	Observed Value	Unit	Biological Reference Interval
FSH - Follicle Stimulating Hormone (Serum,ECLIA)	27.12	mIU/mL	Normal Menstruating Women: Follicular Phase : 1.4-9.9, Mid Cycle Phase : 0.2-17.2, Luteal Phase : 1.1-9.2, Post Menopausal : 19.3-100.6
LH-Luteinising Hormone (Serum,ECLIA)	16.85	mIU/mL	Normal Menstruating Women: Follicular Phase : 1.7-15, Mid Cycle Peak : 2.9-56.6, Luteal Phase : 0.6-16.3, Post Menopausal : 14.2-52.3

-- End of Report --

Fig. 3 : Hormonal assay after treatment

Investigation	Observed Value	Unit	Biological Reference Interval
Haemoglobin (Hb) (EDTA Whole Blood,Colorimetric)	12.1	gm/dL	12.5-16

Fig. 4 : Blood test after treatment

III. DISCUSSION

Arthava is the upadhatu of rasa dhatu, soumya artava being subjected to pachana by pitta makes artava as agneya. Normally formed artava with properly functioned apanavata helps in rajasravarooopa artava which flows out of the body

every month. Any derangement of pitta or dhatvagnimandya may affects the proper dhatuparinama by which normalcy of artava cakra gets afflicted. This may lead to manifestations like artavakshaya or artava vrdhi. Artavakshaya with features like yathochita kalam adarsanam and alpatha can be correlated with POI. The patient was presented with features suggesting severe agni mandya and apana vayu vaigunya, so phase 1 of treatment aimed for correcting the agni and apanavayu vaigunya with guluchyadi kashaya, abhayaristam with kumaryasavam and hinguvachadi gulika. After correcting this, srothosodhana was done in phase 2 with snehapana using mahakalyanaka ghrita followed by classical vamana. Vitiated vata and kapha being avarana to the artavavaha srotas leads to artavavaha srotorodha causing nashtartava. According to Susrutacharya artavakshaya should be treated by samsodhana – agneya dravyas⁴.

‘Samsodhanam agneyanam cha dravyanam vidhivat upayoga:’

Acharya Dalhana interpreted sodhana chikitsa includes only vamana karma here. Mahakalyana ghrita⁵ explained in the context of unmada chikitsa has properties such as medhya, vatanulomana, tridosha samana, srotosodhana and tikshna. So it can stimulate the normal functionings of HPO axis. Vamana helps to eliminates the aggravated kapha and thereby helps to normalise the pitta functions. Vamana is effective in srotodushti and agnimandyajanya vikaras caused by kapha avarana, increases the metabolic activity, mainly acts on liver metabolism where steroidogenesis occurs. Patient got her periods on 8th day after the vamana karma. The action of dravyas entering into the GI tract and enteric nervous system through the yogabasti will also generate stimulatory signals for CNS. With the help of neurotransmitters it can activate hypothalamus and pituitary. It can also stimulates endogenous opioids which are a group of peptides controlling the ovarian cycle through inhibitory GnRH secretion. Basti also has a stimulatory effect on parasympathetic activity which is mainly responsible for normalcy of apana vata⁶. Patient was then followed up with internal medications for maintaining the

normalcy of her cycles by regularising the functions of HPO axis and hormonal levels. She got her cycles periodically in the subsequent months. The investigations done after the treatment was suggestive of improvement in her condition.

IV. CONCLUSION

Ayurvedic management has a better scope in the management of Premature ovarian insufficiency. A proper deepana pachana followed by sodhana and samana chikitsa considering the line of management of artava kshaya can be ideal for treating hypoeostrogenic conditions.

Consent of Patient

Patient concern was obtained for publication without disclosure of identity of patient.

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