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Artava Kshaya with Hypothyroidism: A case study

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ABSTRACT



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Keywords:

Artava Kshaya, Hypothyroidism Artava Kshava is the condition in which the menstruation does not occur in its appropriate time, which can be correlated with oligomenorrhoea with Scanty Menstrual flow. Hypothyroidism is one of the causative factors of oligomenorrhoea, i.e. Artava Kshaya. The prevalence of hypothyroidism in the reproductive age group ranges from 2% to 4%. It affects female fertility in the form of menstrual irregularities, infertility and spontaneous first trimester miscarriages. In modern science, thyroxine is used for the management of hypothyroidism which is useful but with specific side effects. A 27 years old married female with the complaints of delayed and scanty menstrual flow for four years with an obstetric history of $G_1P_1L_1\,$ & on 12.5 thyroxine tablet, visited the OPD. A urine pregnancy test was negative. Thyroid profile showed high TSH level, i.e. 9.23 uIU/ml and USG report showed small-sized Uterus with thin endometrium and very small-sized both ovaries without detectable follicles. Based on the symptoms and investigations, the patient was diagnosed as a case of Artava Kshaya with hypothyroidism. The principle of treatment was focused on Agnideepana, Strotoshodhana, Artava Pravartana and Vata Kapha Shamana. A treatment scenario was selected for the management, and follow up was done after every month.

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INTRODUCTION

Artava Kshaya (Oligomenorrhoea) is among the Ashta Artava Vyapad (eight menstrual disorders) occurs due to the Avarana (obstruction) of Artavavaha Strotas (channels carrying menstrual blood) by Dushit Vata and Kapha Doshas (Samhita, 2003) (vitiated). In this condition, the menstruation does not appear in its appropriate time, i.e.

oligomenorrhoea, flow is scanty with pain in Yoni (vagina). Acharya Sushruta has mentioned that use of Agneya Dravyas (drugs with hot potency) and Samshodhana Karma (purification procedure) are best to manage Artava Kshaya (Samhita, 2009).

Thyroid hormone levels within normal limits are responsible for proper metabolism of the body and menstrual function and for its maintenance the hypothalamic-pituitary-thyroid axis plays a key role. Among the thyroid hormones, slight increase in TSH (thyroid-stimulating hormone) levels with standard T3 (triiodothyronine) and T4 (thyroxine) indicates subclinical hypothyroidism. In contrast, high TSH levels accompanied by low T3 and T4 levels indicate clinical hypothyroidism.

Women are more likely to develop hypothyroidism than men. In population-based studies, women were seven times more likely to have TSH levels above 10 uIU/ml (Garber *et al.*, 2012) than men. The prevalence of hypothyroidism in the reproductive

Table 1: Showing treatment given to the patient

Sr. No.	Drug	Dose	Duration
1	Navak Guggula	250 mg BD after food	1 month
2	Cap. U-gyneatone Forte	1 BD after food	1 month
3	Dashamula Bharad Kwath with Erand Tail	50 ml kwath with half tsf tail in empty morn- ing stomach	1 month
4	Shadbindu Tail Nasya	10 in each nostril in morning and evening	1 month
5	Matra Basti with Dashamula Tail	30 ml after light and healthy lunch	Eight days

cap. - capsule, mg - milligrams, BD - twice a day, tsf -teaspoon full, 1^o - 1drop, tsf - ts

Table 2: Showing a further continuation of treatment

Sr. No.	Drug	Dose	Duration
1	Navak Guggula	250 mg BD after food	1 month
2	Cap. U-gyneatone Forte	1 BD after food	1 month
3	Dashamula Bharad Kwath with Erand Tail	50 ml kwath with half tsf tail in empty morn- ing stomach	1 month
4	Shadbindu Tail Nasya	10 in each nostril in morning and evening	1 month
5	Rajapravartini Vati with Kumariasav	500 mg vati with 20 ml of asav just before food (Abhakta kal)	For eight days

cap. - capsule, mg - milligrams, BD - twice a day, tsf -teaspoon full, 1^o - 1drop, ml- millilitres

Table 3: Showing treatment protocol for eight days for initiation of menses

Sr. No.	Drug	Dose	Duration
1	Rajapravartini Vati with Kumariasav	500 mg vati with 20 ml of asav just before food (Abhakta kal)	For eight days
2	Matra Basti with Dashamula Tail	30 ml after light and healthy lunch	For eight days

cap. - capsule, mg - milligrams, BD - twice a day, tsf -teaspoon full, 1^o - 1drop, ml- millilitres

Table 4: Showing Improvement in Thyroid Function Test

Thyroid test	Before treatment	In-between treatment	After treatment
T3	WNL	WNL	WNL
T4	WNL	WNL	WNL
TSH	20.00	9.23	1.80

TSH - a thyroid-stimulating hormone, T3- triiodothyronine, T4 - thyroxine, WNL - within the standard limit

Table 5: Showing Improvement in USG Report

	Before treatment	After treatment
USG findings	Small-sized Uterus with endometrium, very small-s ovaries without detectable follio	

USG- ultrasonography

age group is 2-4% (Lincoln *et al.*, 1999). Anovulation is the primary manifestation seen in hypothyroidism and associated with changes in cycle length, i.e. oligomenorrhoea and amount of bleeding.

As per Ayurveda, hypothyroidism occurs due to Jatharagni (digestive fire) and Dhatvagni (tissue fire) Mandya (low) with Prakopa (vitiation) of Vata and Kapha Dosha and Strotodushti of Rasavaha, Raktavaha, Medovaha strotas. Thus, in case of Artava Kshaya due to hypothyroidism, principles of treatment should be Agnideepana (stimulation of digestive fire) at Jatharagni and Dhatvagni level, Strotoshodhana (cleansing of microchannel), Vatakapha Shamana and maintaining the regularity of cycle.

MATERIALS AND METHODS

The present case study was carried out by following Good Clinical Practice guidelines, Studies on Hormonal Imbalance and Ayurved Textual references. Written informed consent was taken from the patient before starting the treatment.

Case Report

A moderately built married woman aged 27 years, weight 52 kg and height 156 cm with Body Mass Index 21.4 kg/m2 came to Out Patient Department of Prasuti Tantra & Stree roga, MGACH & RC, Salod (H) on 16/11/2018 with the chief complaints - amenorrhoea of 6 months, the heaviness of the body, mild headache, body ache and delayed menses with the scanty menstrual flow since three years.

A urine pregnancy test was negative. On taking a detailed history, she said that menstruation appears after taking medication only. Last Menstrual Period was 11/5/18. Menstrual cycle was irregular with an interval of 60-150 days and painless scanty bleeding (1 pad/day) for 3-4 days without foul smell and clots. Her married life was nine years and had obstetric history $G_1P_1L_1$ (gravida, parity, live birth) with secondary infertility with no history of using contraception. The patient had a history of taking medicine for hypothyroidism for the last one and half years.

Patient belongs to lower-middle socio-economic class with vegetarian dietary habit. Her appetite was good with good digestion; bowel and bladder habit was regular. On examination, no thyroid enlargement was noted. No abnormality detected on per speculum and vaginal examination.

Investigations

All haematological and biochemical parameters were within normal limits. The patient had the latest thyroid profile, which showed normal T3, T4 lev-

els with free T4- 1.29 ng/dL and high TSH level, i.e. 20.0 uIU/mL. Ultrasonography report showed Small-sized Uterus with thin endometrium, very small-sized ovaries without detectable follicles on 12/10/2018.

Based on the symptoms and investigations, she was diagnosed as a case of Artava Kshaya with hypothyroidism and treatment was started as shown in the Table 1.

Treatment

On first follow up: after eight days, she feels relieved from the heaviness of the body, mild headache, body ache. Menstruation not initiated.

Then continue with the following treatment, as shown in Table 2.

On second and third follow up: on 20/12/2018 and 22/01/2019, she feels completely relieved from all other complaints. In 3^{rd} follow up, her TSH level was 9.23 uIU/mL. Both the times following treatment shown in Table 3 was added for eight days only.

On fourth follow up: on 13/02/19, LMP was 02/02/2019 with the good, moderate, painless menstrual flow for 4-5 days (2 pad/day).

After five months of the above-said treatment, the patient showed marked improvement with the initiation of the menstrual cycle without hormonal medications with the good and painless flow for 4-5 days. Thyroid profile comes to normal limits (TSH – 1.80 uIU/mL) as shown in Table 4, and it is marked and noticeable improvement in USG, as shown in Table 5.

Discussion

In the Samprapti (pathogenesis) of Artava Kshaya and hypothyroidism, Agnimandya (weakened digestive fire) occurs at Jatharagni and Dhatvagni level with vitiation of Vata and Kapha Doshas, and there is the involvement of Rasavaha, Raktavaha, Medovaha and Artavavaha Strotas (channels carrying Rasa, Rakta, Meda and Artava).

Navak guggula is indicated in Medoroga chikitsa (Sen and Ratnavali, 2015a) adhyaya which consist of Shunthi, Marich, Pippali, Haritaki, Bibhitaki, Amalaki, Chitrak, Musta, Vidanga, Guggula and Goghrit. It is Vata-Kapha Hara, medoghna (fat destroying), agnidipak (stimulate digestion) and so gives good results in patients with hypothyroidism.

Raja Pravartini Vati mentioned in Yonivyapat Rogadhikara (Sen and Ratnavali, 2015b) (diseases of the genital tract) and Strirogadhikar (diseases of females) possess properties like Katu-Tikta Rasa (spicy and bitter taste), Tikshna Guna (penetrating), Ushna Virya(hot potency), Katu Vipaka (bitter taste at the end of digestion) thereby increases Agneya

Guna of Dhatus in the body and Vatakapha Shamaka. It consists of Kanya, Kasees, Tankan, Ramatha.

Kumari Asava, which is indicated in Strotodushti, Daurabalya (Acharaya and Samhita, 2013) (debility), also acts on ovaries to correct the function and induce ovulation (Hebbar, 2011). It may also influence female hormones and helps to the treatment of disturb menstrual cycle (Singh, 2016). It contents Kumari, Haritaki, Jatamansi as main ingredients with many other herbal drugs which exhibit hepatoprotective activity, helps in proper metabolism of hormones in the liver, Improves digestion etc. Acts as Vata Kapha Shamak and Pitta vardhak (Acharaya and Samhita, 2013).

Tikshna Guna of drugs favours the Strotoshodhana and thereby relieving the Avarana. Artavajanana and Pravartana Karma (initiation) may help in regularising the cycle. Drugs have Deepana (increasing digestive fire), Pachana (digestive) actions so that it regulates Jatharagni, Dhatvagni and Bhutagni which corrects metabolism at the cellular level, results in proper formation of Dhatus and Upadhatus (Artava).

Dashamula consists of Bilva, Agnimanth, Shonyak, Pathala, Gambhari – Bruhat Panchamula – Kapha-Vataghna and Agnipradipak; Shalaparni, Prushnaparni, Bruhati, Kanthakari, Gokshura – Laghu Panchamula- Vatavikaraghna. Well, known drug for Vata Vyadhi Chikitsa (Sen and Ratnavali, 2015c,d; Shastri and Shastri, 2015) plays an essential role in Vata Shaman and thus clear the strotovarodha. Thus its use in the form of Kwath for Abhyantar pans. Along with kwath Erand Tail (Sen, 2015a) also given for abhyantar pan as having properties like Bhedaniya, Adhobhagahar, Angamarda prashmanam, Vatashaman explain by Bruhat Trayi.

Dashmula Tail (Sen, 2015b) used for Basti Chikitsa (Anorectal enema) prove to be effective in Vata shaman. Basti is most effective for purification. It regulates Apan Vayu. Thus it improves circulation to reproductive organs, boosts healthy ovulation and reset the biological clock of the body (Phalle's, 2019).

Shadabindu Tail which consists of Krushna tila tail, Ajadugdha, Bhrungaraj and Kalka of 10 other herbs beneficial in all kind of Shiroroga, helps to relieve stress (Sen, 2015c), which is necessary for right hormonal balance. It is used for Nasya Karma (nasal medication) as Nasya helps to regulate the hypothalamo-pituitary-ovarian axis and establishes normal menstruation.

Cap. U-gyneatone Forte is a phytoherbal formulation which consists of Haridra, Shatavari, Shata-

pushpa and some active herbs which act as menstruation regulator and as a health tonic for females of fertile age group (PRNewswire, 2014; of Capsule Ugyanetone, 2020).

CONCLUSIONS

Thus, we can conclude from this study that Artava Kshaya with hypothyroidism well treated with this Ayurveda regimen. Navak guggula prove to be effective in Medoroga chikitsa. Raja Pravartini Vati gives good result in initiation and regulation of the menstrual cycle. Kumariasava and Dashmula are best effective in strotodushti and vataj doshdushti, respectively. Shadbindu tail plays a primary role in hormonal balance, and so establishes normal menstruation. Cap. U-gyneatone Forte is an excellent uterine and health tonic for females.

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Conflict of Interest

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