



Anartava wsr to Primary Hypothalamic Amenorrhea: A concept with a Case Report.

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ABSTRACT

The "Hypothalamic amenorrhea" is defined as the cessation of menstruation due to a dysfunction of hypothalamic signals to the pituitary gland resulting in a failure of ovulation or stimulation of ovulation. As per *Acharya Charak* the *raja* is the essence of *rasa* i.e nutritional part. *Acharya Sushruta* in *Dalhana tika* explains the *raja* after formation step by step contributes in formation and development of *sthan*, *garbhashaya* and *yonis*. The *Anartava* is condition in which the *avarodhajanya* pathology is observed where the *aharaja nidans*'s leading to nutritional deficiency and *viharaja nidana*'s like exposure to stress contributes in *artavavaha sroto avarodha* leading to clinical manifestation of *anartava*. In a present case report a 15 years adolescent female visited with amenorrhoea and associated complains of abdominal pain where *shamana* medications were used and further investigations advised to rule out the pathology in patient. In present condition of Primary Hypothalamic Amenorrhoea aim is to restore the functions of gonads and maintain its normalcy of HPO axis with the help of *Rasayana* and *Vajeekara* drugs. The *Rasayana chikitsa* also can be advised in further follow up to give antioxidant and rejuvenate the body. The *Vajeekara* drugs will help to balance the HPO axis and maintain the normal pubertal growth and menstruation.

Keywords: Hypothalamic Amenorrhea, HPO Axis, Anartava, Rasayana, Vajeekarana.

INTRODUCTION

The Hypothalamic Amenorrhea has two types primary and secondary. The females that have not yet had their periods by the age of sixteen are considered as primary. In who previously had normal periods, temporarily or permanently stops menstruating are secondary. The "Hypothalamic amenorrhea" is defined as the cessation of menstruation due to a dysfunction of hypothalamic signals to the pituitary gland resulting in a failure of ovulation or stimulation of ovulation¹. In this condition the female has no obvious structural abnormalities of the hypothalamus or the rest of the brain, pituitary gland, or ovaries. The incidence is 1-10 cases per 100000 births¹.

The condition of hypothalamic amenorrhea has also been described in women of normal weight -- a variant that may be associated with psychogenic factors such as stressful life events or adverse childhood experiences². In psychogenic amenorrhea, like exercise-related amenorrhea, associated with deficits in calorie and macronutrient intake, as well as with neuroendocrine abnormalities. Thus, a central signal related to energy deficit may be the common factor underlying the two forms of hypothalamic amenorrhea³.

In functional amenorrhea it is commonly found that a reduction in the mean and pulsatile gonadotropin secretion and a diminished estradiol concentration during the early follicular phase of the menstrual cycle⁴. Other hormonal abnormalities include a slight increase in the cortisol level and a suppression of thyrotropin and thyroid hormone⁴. The nutritional deficiency as a common underlying cause of estrogen loss leading to amenorrhea in young women, targeting nutritional correction plays a vital role in recovery than trying to replace estrogen without addressing the cause for loss⁵.

As per Acharya Charak the *raja* is the essence of *rasa* i.e nutritional part⁶. Acharya Sushruta in *Dalhana tika* explains the *raja* after formation step by step contributes in formation and development of *sthan*, *garbhashaya* and *yonis*⁷. The *mithyachara* i.e improper food and lifestyle lead to *artava dushti*⁸.

The description of amenorrhoea is found under different headings like *Anartava*, *Nashtartava* or *Artavakshaya*. Ayurvedic aetiopathogenesis of *Nashtartava* has been described in *Sushruta Samhita* -The word "*Avrita*" means to get *Srotorodha* (obstruction) and the whole quotation mentioned in very *Samhita* means that due to *Srotorodha* in the *Artavavaha Srotas*, the quantity of *Artava* ceases or it stops totally⁹.

The *Anartava* is condition in which the *avarodhajanya* pathology is observed where the *aharaja nidans*'s leading to nutritional deficiency and *viharaja nidana*'s like exposure to stress contributes in *artavavaha sroto avarodha* leading to clinical manifestation of *anartava*.¹⁰

In a present case report a 15 years adolescent female visited with amenorrhoea and associated complains of abdominal pain where *shamana* medications where used and further investigations advised to rule out the pathology in patient.

Patient Information:

A 15 years adolescent female patient visited to the OPD of Yashwant Charitable Hospital, Kodoli, Kolhapur, Maharashtra on 21/02/2025 with complains of consistent lower abdominal pain (VAS: 9) associated with head ache on an often (VAS: 5). Patient also complains of amenorrhea for 1 year. She attended her menarche on 18/4/2024 where she observed only spotting. After attending the menarche, she didn't attend with the menstrual cycle in 1 year of duration. On observation patient is well oriented, well-nourished with presence of all secondary sexual characters. She was not suffering from any other medical illness or hormonal issues prior.

Clinical Findings:

In the first OPD visit BP:110/70 mm hg, PR:78 per min, RR:19 per min and temperature was afebrile. The height of patient is 149 cm with weight 40 kg having BMI 18 kg/m² which indicates a healthy weight. On examination pallor, icterus, clubbing, cyanosis and oedema was absent.

Family History:

A patient is exposed to extreme stress in early age due to parental separation.

Diagnostic Assessment:

After a thorough check-up she advised for CBC, USG abdomen-pelvis and hormonal essay for FSH and LH. After 12 days she visited with reports shown a following finding.

USG Abdomen-Pelvis (4/3/2025):

Uterus and both ovaries not well visualized??small??rudimentary where further hormonal essay were required with MRI pelvis.

Liver normal in size (14.4cm) with no any abnormality observed. Gall bladder with normal wall thickness and no any calculus was observed. Spleen normal in size (10.4cm). Pancreas

with normal size. Both kidney normal in size, shape, axis and smooth contours. Urinary bladder no any abnormality was observed.

CBC (3/3/2025):

All the parameters of CBC were within normal range.

Parameter	Patient Value
Hb	12g/dl
RBC	4.64m/cu mm
PCV	40.8%
MCV	87.9fL
MCH	25.9 Pg
MCHC	29.4%
RDW	15.9%
WBC Count	9800
Neutrophils	74%
Lymphocytes	22%
Eosinophiles	2%
Monocytes	2%
Basophils	0
Platelets	291000/uL
PCT	0.20%
MPV	7.1fL
PDW	17.6%

Hormonal Essay:

- i. FSH (Follicle Stimulating Hormone) (3/3/2025): 2.09 mIU/mL
- ii. LH (Luteinizing Hormone) (3/3/2025): 2.09 mIU/mL

Diagnosis: Anartava w s r to Primary Hypothalamic Amenorrhea

Therapeutic Intervention:

Patient is managed with the following Shamana medications:

Table No 1: Therapeutic Intervention				
Sr. No	Medication	Dose	Anupana	Time
1.	<i>T. Chandrababha Vati</i> ¹¹	250 mg / BD	<i>Koshnaja</i>	After Food
2.	<i>T. Shankha Vati</i> ¹²	250 mg / BD	<i>Koshnaja</i>	Before Food
3.	<i>T. Punarnava Mandura</i> ¹³	250 mg / BD	<i>Koshnaja</i>	After Food
4.	<i>T. Rajopravartini Vati</i> ¹⁴	250 mg / BD	<i>Koshnaja</i>	After Food
5.	<i>Hingwashtaka Choorna</i> ¹⁵	5 gm	<i>Koshnaja</i>	HS
6.	<i>Sukumar Kashaya</i> ¹⁶	10 ml / BD	<i>Koshnaja</i>	After Food
7.	T. Neurobion Forte	1 OD	<i>Koshnaja</i>	HS

Follow up (5/3/2025): Patient visited to the OPD after 12 days. Patients' previous complaints of lower abdominal pain reduced upto 40% (VAS: 4). She had mild headache on and often (VAS: 2). Examination shows BP:110/80 mm hg, PR:79 per min, RR:20 per min and temperature was afebrile.

Follow up medication:

Table No 2: Follow up medication				
Sr. No	Medication	Dose	Anupana	Time
Medications mentioned in Table No:1				
1.	<i>T. Bramhi Vati</i> ¹⁷	250 mg / BD	<i>Koshnaja</i>	Before Food

Result and Outcome:

Patients' previous complaints of lower abdominal pain reduced up to 40% (VAS: 4). She had mild headache on and often (VAS: 2). The adolescent has good outcome with proper pubertal induction as an adolescent, resulting in normal breast and uterine development and psychological health. The previous study shows efficacy of *Nasya* helps in correction of HPO axis. The *Vajeekara* drugs helps to improve and correct the gonadal disturbances further resulting in correction of HPO axis.

DISCUSSION

The normal pubertal development is the result of timely biological changes involving the increased release of androgens by adrenal glands and maturation of hypothalamic-pituitary-ovarian (HPO) axis. Primary amenorrhoea is defined as the absence of menses with normal growth and secondary sexual characteristics. It can occur in a condition affecting any part of HPO axis including the hypothalamus, anterior pituitary, ovaries and outflow tract. The psychogenic factors such as stressful life events or adverse childhood experiences plays vital role affecting disturbances in HPO axis leading amenorrhoea.

The *Anartava* is condition in which the *avarodhajanya* pathology is observed where the *aharaja nidans*'s leading to nutritional deficiency and *viharaja nidana*'s like exposure to stress contributes in *artavavaha sroto avarodha* leading to clinical manifestation of *anartava*.¹⁰

In the *samprapti* of *anartava*¹⁸ it is observed the involvement of *apana* and *vyana vata*, *pachaka pitta* and *kledaka kapha*. The *dushya*'s are *rasa* and *rakta*. The involvement of *jatharagani* and *dhatwagni* is in *mandavastha*. The *srotodushti prakar* is *sanga*.

The present *shaman* medications *Tab. Shankha Vati* and *Hingwashtaka choorna* helps to correct the *apana vata vikruti* helps in reducing the *adhmana* also corrects the flow of *pitta* in *artavavaha srotas*. Specifically, imbalanced or high *apana vata* is responsible for amenorrhea. Located in the pelvic region, it controls the flow of menstruation. The *Tab. Rajopravartini Vati* helps to correct the *rajovaha srotas*. The *Tab. Punnarnava Mandoora* helps to enhance the *rakta dhatu* hence improving the blood circulation to the uterus and ovaries. The *Sukumar Kashaya*'s *ushna guna* helps to correct the *vata dosha*. Also, it is having antioxidant properties help to balance the stress. The *Bramhi Vati* gives *Medhya* effect and balances the stress. To correct the nutritional deficiency *Tab. Neurobion Forte* is given.

CONCLUSION

In present condition of Primary Hypothalamic Amenorrhoea aim is to restore the functions of gonads and maintain its normalcy of HPO axis with the help of *Rasayana* and *Vajeekara* drugs. The *Rasayana chikitsa* also can be advised in further follow up to give antioxidant and rejuvenate the body. The *Vajeekara* drugs will helps to balance the HPO axis and maintain the normal pubertal growth and menstruation.

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