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Ayurvedic Management of Hyperprolactinemia associated with PCOS: A Case Report

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ABSTRACT

Hyperprolactinemia can be defined as a condition of elevated prolactin levels in blood & it's prevalence is 3% to 67% in PCOS women. In women, normal range of serum prolactin is 1-25 ng/mL. Hyperprolactinemia causes amenorrhoea or oligomenorrhoea in 30% women with anovulatory infertility. After delivery, it give rise to production of breast milk. In the modern therapy, Bromocriptine or cabergoline are advised which further manifest GIT symptoms, breast pain and painful menses.

AIMS & OBJECTIVE – To evaluate the effect of *Ayurvedic* Drugs in the management of hyperprolactinemia associated with PCOS.

MATERIALS & METHODS - An unmarried women aged 28 years with complaints of irregular and scanty menses since 2 years & her Investigation shows altered LH:FSH ratio (>2:1) and confirmed PCOS by USG was treated with *Stanayasodhana Gana* powder. It was given orally for three month in dose of 6 gms BD with Lukewarm water empty stomach. Along with medication, lifestyle modification was also done.

RESULT & DISCUSSION – Serum prolactin levels reduced from 34.73 ng/Ml to 22.87ng/mL & LH, FSH ratio was reduced from >2:1 to 1.2:1.

CONCLUSION –It is concluded that hyperprolactinemia associated with the PCOS can be managed through *Ayurvedic* treatment protocol without any hormonal therapy.

Key Words: *Stanayasodhana Gana, Hyperprolactinemia, Anovulatory infertility, PCOS*

INTRODUCTION

Hyperprolactinemia is a pathological condition which is distinguished by raised level of serum prolactin. Prolactin is a polypeptide hormone which is secreted from alpha cell of anterior pituitary and is also known as lactogenic hormone[1]. Prolactin inhibits GnRH pulse secretion. The normal plasma level of prolactin is 1-20ng/mL[2]. The prevalence of hyperprolactinemia in PCOS women range from 3% to 67%[3]. Raised level of serum prolactin i.e. Hyperprolactinemia inhibits ovarian steroidogenesis which causes secondary amenorrhoea in about 30% of women with anovulation (hypogonodotropic hypogonadism). Physiological factors like stress, exercise, sleep & any deformity in hypothalamus and pituitary and Intake of Certain drugs are considered as the cause for alteration of prolactin levels[4]. In modern therapy, Bromocriptine or cabergoline is given, both drugs are dopamine agonist which causes gastrointestinal discomfort, tachycardia,

numbness and many other symptoms. In case of pituitary tumour; surgery is the last option which have their own risks like meningitis, leakage of CSF etc[5].

In *Ayurvedic* literature, *Mandagni* is said to be the cause of every disease. Due to the vitiation of *Dhatwagni* ; there may be the excess production of *Mala Bhaga* and less production of *Dhatu* or the *Dhatu* that is being formed will be morbid (vitiated *Dhatu)*. *Artava* and *Stanaya* are considered as the *Updhatu* of *Rasa Dhatu*[6]. *Dushti* of *Rasa Dhatu* leads to production of morbid *Updhatu* i.e. *Artava Dushti*. In hyperprolactinemia, Amenorrhoea or oligomenorrhoea may be associated with Anorexia, heaviness in body, lethargy, *Srotorodha,* Infertility & *Mandagni* which directly indicates *Rasa Dhatu Dushti*[7]. *Acharya Charak* has described *Stanayasodhana Gana* under the heading of *Mahakashyas*[8]. Drugs used in *Stanayasodhana Gana* have *Tikta – Katu Rasa* and *Ushna Virya* predominantly, which are ideal for the correction of *Rasa Dhatu Dushti*. Sudha *Rasa Dhatu* (nonvitiated) will form pure *Stanya* and *Artava.* Hence more stress is given here on purification of *Rasa Dhatu*. Keeping this hypothesis in mind, *Stanayasodhana Gana* is used in this case.

AIM

- To observe the effect of *Ayurvedic* poly herbal formulation, *Stanayasodhana Gana*.
- To find a batter *Ayurvedic* formulation for management of hyperprolactinemia.

OBJECTIVES

- To observe effect of formulation in subjects.

MATERIALS AND METHODS

Case report: Basic information of the patient.

Age: 28 years.

Gender: Female.

Religion: Hindu.

Occupation: Teacher.

Socioeconomic status: Middle class.

Chief complaint: Irregular and scanty menses since two years with accumulation of *Kapha* in chest region.

History of present illness: Patient was having the complaint of irregular & scanty menses, she took allopathic medication for same but discontinued after 6 month due to the complications like hair growth on face and chest region & weight gain. She approached to the OPD of *Prasuti Tantra evam Stri Roga* Dept. at IPGT & RA Jamnagar for further management.

History of past illness: She was not suffering from any systemic illness.

Personal history:

Aharaja: *Snigdha, Pisthanna,* cold drinks.

Viharaja: *Diwaswapana* 1-2 hrs/day, *Ratrijagarana.*

Menstrual history:

Menstrual pattern before and after treatment is given in table no 1.

Examination:

Astavidha Pareeksha

Nadi: Prakruta, 76/min.

Mutra: Prakruta, 5-6times/day, 1-2times/night.

Mala: Vibandha, 2-3 times/day, not satisfactory.

Jihwa: White coated.

Shabda: Prakruta.

Sparsha: Prakruta.

Druk: Prakruta.

Akruti:Vatapittala.

Table 1 Menstrual history

	BT	AT
Menarche	At 16 years.	-
LMP	1-02-2020 (spotting only).	21-05-2020
Interval	60-65 Days.	35-40 Days.
Duration	2-3 Days.	4-5 Days.
Amount of bleeding	Scanty flow. 1st to 2nd Day –2 pad half soaked in 24 hr. 3rd day onward – no bleeding.	No scanty flow. 1st to 3rd day – 3-4 pad fully soaked, 4th to 5th day- one pad
Clots	No clots.	No clots.
Associated symptom	Painful (+++)	(+)

Table 2 Hormone profile (on 3rd D) -

Hormone	BT	AT
Sr. Prolactin	34.73 ng/mL	22.87ng/mL
Sr. LH	8.57 mIU/mL	6.54 mIU/Ml
Sr. FSH	3.18 mIU/mL	5.14 mIU/Ml
LH:FSH	>2:1	1.2:1

Table 3 USG finding (BT- 7th Day of menses, TAS)–

Uterus	**Anti – verted normal.**
ET	3.8 mm.
Ovary	B/L ovaries bulky, Volume of right ovary - 28*18*24mm – 6 cc; left ovary – 26*16*23- 5.4cc; Poly cystic ovary present.

Investigation

Blood investigation given in table no 2.

USG finding done on 7th day of menses before treatment is given in table no 3.

Treatment adopted: *Stanaysodhana Gana* which is collectively prepared with the combination of 10 drugs was given for 3 month. The ingredients of Stanayasodhana Gana are given in table no 4. Along with medication *Pathya –Apathya* was also strictly followed by the patient. Treatment protocol and *Pathya-Apathya* are given in table no 5 & 6 respectively.

OBSERVATION AND RESULTS

Encouraging result was found during and after the course of medication. Except of medication, Subject was advised to change life style pattern. The complaint of *Kapha* accumulation was disappear after one week of medication and menstrual pattern was also restored to normal pattern (table no 1). Serum prolactin level was reduced to the normal range meanwhile LH FSH ratio was reached almost to normal range(table no 2).

Table 4 Ingredient of *Stanayasodhana Gana*.

S.n.	Drug	Botanical Name	Part Used	Ratio
1.	*Patha*	*Cissampelos pareira* Linn.	Root	1 Part
2	*Shunthi*	*Zingiber officinale* Roxb	Rhizome	1 Part

3.	*Devdaru*	*Cedrus deodara* Roxb	Bark	1 Part
4.	*Musta*	*Cyperus rotundus* Linn	Rhizome	1 Part
5.	*Murva*	*Marsdenia tenacissima* W.&A	Root	1 Part
6.	*Guduchi*	*Tinospora cordifolia* Willd.	Stem	1 Part
7.	*Kutaj*	*Holarrhena antidysenterica* Wall	Seed	1 Part
8.	*Chiraita*	*Swertia chirata* Roxb.	Whole plant	1 Part
9.	*Kutki*	*Picrorhiza kurroa* Royle ex Benth.	Rhizome	1 Part
10.	*Sariva*	*Hemidesmus indicus* R. Br.	Whole plant	1 Part

Table 5 Treatment Adopted.

Drug	***Stanayasodhana Gana.***
Dose	6 gm BD.
Anupana	luke warm water.
Aushada Kala	Morning & evening empty stomach.
Duration	3 months.

Table 6 *Pathya – Apathya*

Pathya	***Apathya***
Regular yoga and meditation like *Surya Namaskar, AnulomVilom ,Kapala Bhati.*	spicy, sour, fried & salty food.
Walking for half hour (morning & evening).	*Diwaswapana*.
Include *Lahsuna* and *Hingu* in food.	*Ratrijagrana*.
Daily intake of *Ajmoda, Satpushpa with* jaggery (1 tablespoon each).	
Fiber rich diet like *Alsi, Moong,* Green vegetable etc.	

DISCUSSIONS

Hyperprolactinemia can be considered as *Agni Dushti Janya Dhatu Pradosajh Vyadhi*, in which *Rasa Dhatwagni Dushti* causes *Artava Dushti*. *Acharya Charak* has mentioned *Stanayasodhana Gana* which has *Tikta rasa* and *Ushana Virya* pre dominantly. *Tikta Rasa* have unique properties like *Deepana, Pachana, Stanayasodhana* & *lekhana*[9].*Ushna Virya* is responsible for the elimination of morbid *Vata – Kapha Dosha* with normalization of the *Agni* & work as *Deepana* i.e. increase digestive fire. Additionally, Drugs used in *Stanayasodhana Gana* like *Patha, Shunthi, Surdaru, Murva* are *Vata – Kapha Shamaka* while *Guduchi* and *Sariva* is *Tridosha Samaka*[10]. These drugs have many properties like *Deepana, Pachana which* normalise *Agni* and ultimately purify *Artava Dhatu* and restore normal menstrual pattern.

CONCLUSION

Nowadays defective life style and working pattern is disturbing menstrual cycle in most of females. It was an attempt to manage hyperprolactinemia with Ayurvedic drugs. *Stanasodhana gana* was found to be effective in hyperprolactemia; it reduces serum prolactin levels and restore normal menstrual cycle. A Study on large scale could be benificial to approach hyperprolactinemia through Ayurveda.

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