

## The Efficacy of *Nasya Karma* in the Management of the Polycystic Ovary Syndrome: A Conceptual Study

Vimla Kumari<sup>1\*</sup>, Sahana VM<sup>1</sup> and Devichand<sup>2</sup>

<sup>1</sup>Department of Dravyaguna, UAC, Dehradun, Uttarakhand, India

<sup>2</sup>Department of Dravyaguna, M.M.M. Govt. Ayurved College, Udaipur, Rajasthan, India.

Received July 29, 2019; Accepted September 13, 2019; Published December 08, 2019

### ABSTRACT

PCOD is a burning problem now days. Its incidence is rising day by day because of *mithya aahara-vihara*. It is one of the leading cause of female sub-fertility with prevalence rate of 25-30% in the young reproductive age group, the full blown syndrome of hyper-androgenism (clinical or biochemical), chronic anovulation and poly cystic ovaries with the exclusion of other etiologies. Obesity is found in over 50% of patients with PCOS. And there is increased risk of type 2 diabetes mellitus and cardiovascular disease in later life. It may be correlated with *artava-kshaya* in which *vata* and *kapha doshas* are vitiated. In the present study we are trying to see the efficacy of *nasya* procedure in treating this disease. PCOD is a result of hormonal imbalance initiating from hypothalamic-pituitary department. As per *ayurveda*, it is said that “*nasa hi shiraso dwaaram*”, so *nasya* would be the appropriate *shodhana* procedure to deal with endocrine disorders, where hypothalamus or pituitary gland is involved. *Panchakarma* therapy is considered to abolish the vitiated *doshas* through the nearby route and to maintain a state of its equilibrium.

**Keywords:** PCOD, *Nasya karma*, *Panchakarma*, *Vata*, *Kapha*

### INTRODUCTION

Polycystic ovarian syndrome (PCOS) was originally described in 1935 by Stein and Leventhal as a syndrome manifested by amenorrhea, hirsutism and obesity associated with enlarged polycystic ovaries. It is a multifactorial and polygenic condition. It is characterized by excessive androgen production by the ovaries mainly. Its incidence is rising day by day because of *mithya aahara-vihara*. It is one of the leading cause of female sub-fertility with prevalence rate of 20-30% in the young reproductive age group, the full blown syndrome of hyperandrogenism (clinical and/or biochemical), chronic anovulation and poly-cystic ovaries with the exclusion of other etiologies. At a recent joint European Society of Human Reproduction and Embryology/American Society for Reproductive Medicine (ESHRE/ASRM) consensus meeting (Rotterdam criteria), a refined definition of PCOS was agreed- namely the presence of two out of the following three criteria [1,2]:

- Oligomenorrhea or anovulation
- Hyperandrogenism (clinical or biochemical)
- Polycystic ovaries, with the exclusion of other etiologies

Any defect in H-P-O axis will cause hormonal or chemical imbalance which may alter the ovarian function leading to PCOS. Despite of accumulated literature and remarkable advance in understanding PCOS, etiology and primary mechanism remains unclear thus posing a burning problem. Underlying cause of PCOS is unknown. PCOS has genetic and familial tendency and may be autosomal dominant inherited. Hyperandrogenism and anovulation may be caused by abnormalities in four endocrinologically active compartments [3]:

1. Hypothalamic-pituitary compartment
2. Ovaries
3. Adrenal glands

**Corresponding author:** Dr. Vimla Kumari, Department of Dravyaguna, UAC, Dehradun, Uttarakhand, India, Tel: 9636865749; E-mail: kumarivimla1990@gmail.com

**Citation:** Kumari V, Sahana VM & Devichand. (2019) The Efficacy of *Nasya Karma* in the Management of the Polycystic Ovary Syndrome: A Conceptual Study. Int J Anaesth Res, 2(3): 86-88.

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## 4. Peripheral compartment (fat)

**Pathophysiology**

- Hypothalamic-Pituitary compartment-Increased pulse frequency of GnRH leads to increased pulse frequency of LH. The LH:FSH ratio is increased.
- Androgen excess-Abnormal regulation of the androgen forming enzyme is thought to be the main cause for excess production of androgens from the ovaries and adrenals.
- Anovulation-Because of low FSH level, follicular growth is arrested at different phases of maturation.
- Obesity and insulin resistance-Apart from excess production of androgens, obesity is also associated with reduced SHBG. It also induces insulin resistance and hyperinsulinemia which in turn increases the gonadal androgen production.
- Long term consequences-Endometrial hyperplasia, risk of developing DM, risk of developing endometrial carcinoma, risk of HTN and cardiovascular disease.
  - Ovaries enlarged 2-5 times the normal size.
  - Capsule is thickened and pearly white in color.
  - Ovarian volume increased >10 cm<sup>3</sup> and stroma is increased.
  - Multiple >12 follicular cysts measuring 2-9 mm in diameter crowded around the cortex.
  - There is thickening of tunica albuginea.

**Clinical features**

- ◆ Menstrual dysfunction in the form of oligomenorrhea, amenorrhea or DUB
- ◆ Increasing obesity (abdominal)
- ◆ Infertility
- ◆ Hirsutism
- ◆ Acne
- ◆ Acanthosis nigricans

Of the various lines of treatment available for PCOS, hormonal therapy is the main choice. Hormonal therapy may offer exceptional results for a shorter period. But over time it can lead to permanent metabolic damage. It further depletes the already taxed endocrinal system and pulls it to sleep.

**AYURVEDIC REVIEW**

PCOD may be correlated with Pushpghni jatharini; o`Fkk iq`ia rq; k ukjh; Fkkdkya izi"; frA LFkwyykse`kx.Mk ok iq`i?uh lk·fi jsufrAA (K.S.Ka.6).

- o`Fkk iq`i & Anovulation

- LFkwyyx.M & indirectly denotes obesity
- ykse`kx.M - Hirsutism

**Etiology**

feF; kpkjs.k rk% L=h.kka iznq`VsukrZosu p A tk;Urs chtnks`kkPp nSokPp J.kq rk% i`Fkd~ AA (C.S.Chi.30:7-8).

- feF;kpkj & Abnormal lifestyle and diet
- nq`V vkrZo - Hormonal imbalance
- chtnks`k & Genetic and Familial tendency
- nSo & Idiopathic

**Aartavkshaya**

vkrZo {k; s; Fkksfprdkykn" kZueYirk ok; ksfuosnuk pAA (S.S.Su.15:12)

;Fkksfprdkyks ekfl ekfl «; gL=o.ke~A A (S.S.Su.15:12;Dalhana)

vkrZo {k; bR; knkS; ksfuosnuk rn~ns" kkfHkiwjdkrZo {k; dqfirsu ok; qukA (S.S.Su.15:12;Chakra)

In the event of deficiency or loss of *artava*, the menses does not appear in its appropriate time or is delayed, is scanty and does not last for three days. There is also pain in vagina. *Chakrapani* opines that this pain is due to aggravation of *vata* caused by loss of *artava* which fills this region.

**TREATMENT**

- r= la`kks/kuekXus;kuka p nzO;k.kka fof/konqi;ksx%AA (S.S.Su.15:12)
- ..... \*la`kks/kufeg lkekU;e~\* bfr dsfpr~\*J ^la`kks/kufeg oeua u fojsd% bR;ijs\*] dqrk%\ fojpsusu fg fiUk{k;knkrZoL; {k; ,o L;kfnfr] oeusu rq lkSE;/kkrkS fuars vkXus;/kkrkS o`s vkrZoekL;k;rsA (S.S.Su.15:12;Dalhana)
- r= "kks/kufeR;usu L=ksr%"kq);FkZa "kks/kua] rPp oeua fojpsua pks/okZ/k%L=ksr%"kqf)djr;k.....A (S.S.Su.15:12;Chakra)

The *artavakshaya* should be treated by the use of purifying measures and *agneya* substances. *Dalhana* says that for purification, only emetics should be used, not the purgatives, because purgation reduces *pitta* which in turn decreases *artava*, while emesis removes *saumaya* substances, resulting into relative increase in *agneya* constituents of the body. *Chakrapani* says that by the use of purifying measures *srotasas* (channels) are cleared. *Samshodhna chikitsa* include 5 modalities like *vamana*, *virechna*, *anuvasana basti*, *niruha basti* and *nasya karma*. *Acharya Kashyapa* has explained the role and importance of *Shatapushpa Taila* in menstrual irregularities when used in the form of *nasya*, *snehapana*, *abhyanga* and *basti*. GnRH is the main regulator of H-P-O axis and the cells of GnRH originate in the olfactory area and migrate into the brain. Keeping this

view in mind, *Nasya karma* can be adopted to stimulate the hypothalamus and pituitary gland through its nearest route [4].

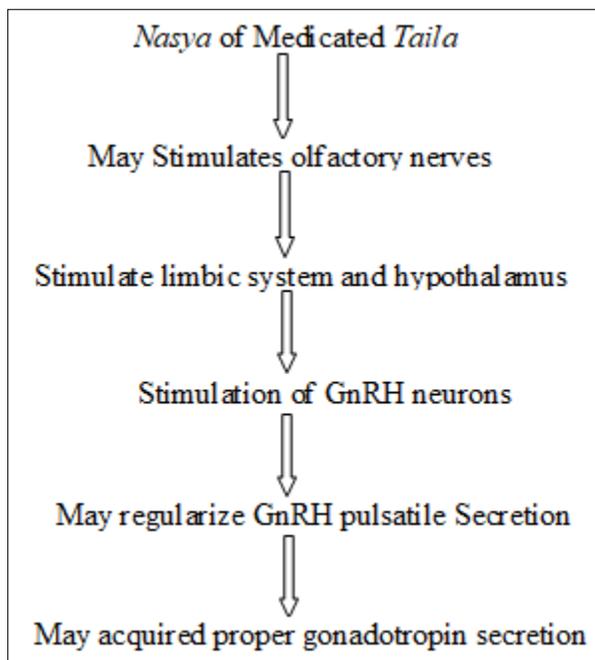
## DISCUSSION

In *Ayurveda*, many therapies are used for the maintenance of health and eradication of diseases. *Nasya karma* is an important therapy among them. In this therapy, the medicine is administered through nose either in the form of *ghrita*, oil, powder, liquid or smoke. It is particularly useful in the treatment of diseases occurring in the organs situated above the clavicle but indirectly it works on the whole body by improving the functioning of the endocrine glands and nervous system. According to all *Acharyas*, *nasa* is said to be the main doorway to *shiras* and medicine introduced through *nasa* occupies *shrungatak marma* and all channels of eye, ear, nose, throat and removes the morbid *doshas*. From modern view, nose is connected pharmacodynamically through vascular system and nerve plexus of olfactory nerve and branches of trigeminal nerve to brain. The olfactory nerves are connected with the higher centers of brain, i.e., limbic system, consisting mainly of amygdaloidal complex, hypothalamus, epithalamus, anterior thalamic nuclei, parts of basal ganglia, etc. So the drugs administered here stimulate the higher centers of brain which shows action on regulation of endocrine and nervous system functions [5].

conceptual hypothesis should be applied over a sample to see the effectiveness of *nasya karma* on PCOS.

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## CONCLUSION

Keeping view on the above said facts it can be concluded that either the essence of *nasya* or *nasya dravya* is reaching the brain and thus controlling different endocrinal functions. On this basis, *nasya* therapy can be supposed an effective option in the management of PCOD. Therefore this