



## Polycystic Ovary Syndrome (PCOS) Drug History and Side Effects

*Prof (Dr.) Bishnupriya Mohanty<sup>1</sup>, Braganza Aaliyah Mary<sup>2</sup>*

<sup>1</sup>Professor & Head, Department of Sanskrit, Samhita, Siddhant, <sup>2</sup>Scholar 4Th BAMS

Gomantak Ayurveda Mahavidyalaya & Research Centre, Shiroda, Goa. 403103

<sup>1</sup>drbishnupriyadas@gmail.com, <sup>2</sup>aaliyah23.ab@gmail.com +91 7057298805

### ABSTRACT

Polycystic Ovary Syndrome (PCOS) is a common reproductive age endocrine disorder in women. Women with PCOS experience issues such as infertility, metabolic abnormalities and may have a large amount of androgen hormones. With different types of medication, some women experience severe side effects. The aim of this study and collection of data is to interpret drug history and its side effects on patients. The assessment was carried out through a questionnaire in which data from 30 females between the age range of 18-30 years was collected.

Keywords: PCOS, Ayurvedic, drug history, side effects.

### INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a common reproductive age endocrine disorder wherein the production of higher levels of androgen by the ovaries hampers the development and release of the eggs. This results in some of the eggs developing into cysts (sacs filled with fluid) instead of being released during ovulation. These cysts build up in the ovaries and get enlarged.

Women with PCOS are at increased risk of infertility, endometrial cancer, late menopause, type 2 diabetes mellitus, and insulin resistance. Modernization and technological advancement reflect in our daily life and has changed our lifestyle. Food intake is focused mainly on sugar, fast food, and carbonated beverages. This, along with lack of exercise, leads to PCOS.

Clinical features of PCOS include irregular/infrequent/prolonged menstrual cycles, excess facial and body hair, acne, polycystic ovaries, and obesity.

A questionnaire-based study was conducted among 30 female patients.

### AIM OF STUDY

The aim of the study and collection of data is to determine how Ayurvedic medicine shows fewer side effects when compared to Allopathic medicine in treating PCOS.

#### 1. Research methodology

A mixed methodology approach focussing on a questionnaire-based assessment was implemented from August to October 2021. A total of 30 questionnaires were distributed among females between age groups of 18-21 years, 21-25 years, and 26-30 years. This questionnaire mainly focuses on drug history, its side effects, change in medication and subsequent disease improvement.

#### 2. Results

A total of 30 questionnaires were distributed, out of which 30 were returned, indicating a response rate of 100%.

**Table No. 1: Demographic data of 30 female patients.**

Description	No. of People	Percentage
<b>Age</b>		
18-21 years	10	33%
21-25 years	10	33%
26-30 years	10	33%
<b>Religion</b>		
Catholic	16	53%
Hindu	14	46%
<b>Marital Status</b>		
Unmarried	20	66%
Married	10	33%

**Table No. 2: Allopathy medication (oral)**

Name of Drug	No. of people
Metformin	4
Birth control	4
Diane 35	4
Progestin tablets	2
Ovral G	2

**Table No.3: Ayurvedic medicine (oral)**

Name of drug	No. of people
<i>Kumariasav</i>	6
<i>Chandraprabhavati</i>	4
<i>Kanchanarguggulu</i>	2
<i>Rasapachakvati</i>	2
<i>Rajapravartini</i>	6
<i>Dashamularishta</i>	6

**Table No. 4: Side effects and duration**

Side Effects	No. of people	Duration of side effect
Bloating	12	2 days prior to period
Nausea	14	During period
Anxiety	18	During period
Severe stomach pain	6	1-2 hours
Heavy period more than 2 pads/day	2	Present
Acne	10	Prior to period
Abnormal weight gain	2	Present
Hair loss	4	Present

**Table No.5: Duration of medication**

Medication	Duration
Metformin	Every month till onset of period for 6 months
Birth control	3 days prior to due date for 4 months
<i>Rajapravartini</i>	10 days prior to period for 1 month
<i>Chandraprabhavati</i>	After period till 10 days prior for 1 month
<i>Rasapachak vati</i>	Till onset of period for 2 months

**Table No.6: Side Effects**

Medication	Side effects
Metformin	Weakness, diarrhea, abdominal pain
Birth control	Nausea, headaches
Diane 35	Breast pain, hair loss, menstrual pain
Ovral G	Nausea, depression, breast
<i>Chandraprabha vati</i>	No serious side effects
<i>Rajapravartini</i>	Menstrual bleed in excess

**Table No. 7: Change in medication**

Change in medication	No. of people
Change to Ayurvedic	14
Following a diet	6
Same medication	8

**DISCUSSION**

The current study (as per Table no. 1) shows that 46% of respondents have been diagnosed with PCOS. Table no. 2 and Table no. 3 indicate that a larger number of female patients use Ayurvedic medicine. Table no. 4 observes that while a majority of the respondents suffer from anxiety, nausea and bloating, they don't suffer from heavy period, abnormal weight gain and hair loss. As stated in to table no. 5, Metformin and birth control pills need to be taken for 4-6 months while *Rajapravartini*, *Chandraprabha vati* and *Rasapachak vati* need to be taken for 1-2 months. According to Table no. 6, Metformin, birth control, Diane 35, and Ovral G, cause severe side effects. *Chandraprabha vati* and *Rajapravartini* do not show severe side effects. Table no. 7 illustrates that 46% of the respondents have switched to Ayurvedic medicine due to the increased side effects of Allopathic medicine. 20% of respondents follow a diet and 33% of respondents continue with the same medication. The study also establishes that majority of the respondents are being treated with Ayurvedic medicine.

**CONCLUSION**

The study and collection of data shows that majority of the respondents fall in the age group of 18-21 years and 21-25 years which include students, working-class and unemployed individuals, which can also increase the stress factor and potentially lead to PCOS. The study shows that even after long term medication it does not show permanent recovery and also disturbs the metabolism of the body. Those who changed medication to Ayurvedic follow a diet and exercise routine. Changes in dietary behaviour include reduction of fast foods, red meats, increased vegetable intake, and healthy fluid intake. Metformin and birth control pills need to be consumed for a longer duration to get results whereas *Rajapravartini* and *Chandraprabha vati* show results after being taken for 1-2 months. The study and collection of data demonstrates that majority of the respondents who suffer from severe side effects have changed to Ayurvedic medicine and also follow a diet and exercise routine.

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