

EFFECT OF *JATAMANSI (NORDOSTACHYS JATAMANSI)* ON BLOOD PRESSURE IN *RAJONIVRITTI KALA (MENOPAUSE)*

Priyanka L. Kasar*¹, Milind C. Kirte² and Rashtrapal Ukey³

¹PG Scholar, Dept. of Kriya Sharir, Government Ayurveda College, Vazirabad, Nanded (MS).

²Assistant Professor, Dept. of Kriya Sharir, Government Ayurveda College, Vazirabad, Nanded (MS).

³Assistant Professor, Dept. of Agadtantra, Government Ayurveda College, Vazirabad, Nanded (MS).

Article Received on
05 Jan. 2018,

Revised on 25 Jan. 2018,
Accepted on 16 Feb. 2018

DOI: 10.20959/wjpr20185-11215

***Corresponding Author**

Dr. Priyanka L. Kasar

PG Scholar, Dept. of Kriya
Sharir, Government
Ayurveda College,
Vazirabad, Nanded (MS).

ABSTRACT

As Men and women became older, they go through different prospects of age. So as far as women is concerned, the phase of '*Rajah Pravritti*' and '*Rajonivritti*' i.e. menopause have great importance and influence on their physical, psychological, social as well as emotional existence. After *Rajonivritti*, the blood pressure may raise because of many reasons like anxiety, depression, hot flushes, etc. It has been observed that normally blood pressure is on lower side in premenopausal women than in men. However, after menopause, the prevalence of hypertension in women is higher than men. The present study was carried out on 30 post menopausal female patients having slightly

increased blood pressure with *Jatamansi Churna* for a period of 28 days with lukewarm water as a *Anupana*. Follow up was taken on 7th, 14th, 21st and 28th day of treatment. Observation was done before treatment i.e. on 0 day and after treatment i.e. on 28th day. The present study mainly highlighted on the effect of *Jatamansi churna* on blood pressure in *Rajonivritti Kala* (Menopause).

KEYWORDS: *Rajah Pravritti, Rajonivritti, Jatamansi Churna.*

INTRODUCTION

The word *Rajonivritti* is made up of '*Rajah*' and '*Nivritti*' where *Rajah* is *Artava* (menstrual blood), *Stri pushpa* (ovum) and *Nivritti* is end or cessation. Therefore '*Rajo stri pushpasya*

nivrittyasa' i.e. cessation of menstruation and ovulation is called *Rajonivritti*. Ancient *Acharyas* supposed it as a normal physiology and not as a disease. According to *Sushruta Samhita*, there are three stages in man/women's life, roughly described as childhood, youth and old age. During these stages *kapha*, *pitta* and *vata* dosha dominate in the body respectively. According to *Sushruta*, 50 years is mentioned as the age at which *artava kshaya* takes place due to *kshaya* of all *dhatu*s in *jara awastha*.^[1]

Menopause literally means the end of the monthly cycles or monthly periods i.e. regular menstruation.^[2] According to WHO, the term natural menopause is defined as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity. Natural menopause is recognized to have occurred after 12 consecutive months of amenorrhea, for which there is no other obvious pathological or physiological cause.^[3] Problems of different age group of female are still present and the most suffering age group is forty plus due to change in reproductive life by permanent cessation of menstruation called as menopause. Every woman faces various physiological and psychological changes during this "change of life".

As *Rajonivritti* is considered to be *vataja* stage of life with some variable *pitta* signs as it is transition from youth to old age. *Apan vayu* which governs the pelvic physiology i.e. genito-urinary tract, elimination of waste products and menstruation hence it is a key *dosha* and *Vyana Vayu* responsible for governing the flow of blood to the peripheral tissues have been affected by excessive flow of *vata* causes increase in blood pressure. Increased flow of *vata* in the circulatory system causes hardening of the arteries due to its drying effect caused by the friction of excessive *vata* on the tissues.

So, considering these factors, a need is felt to develop an alternative holistic therapy, which is non-hormonal, herbal, safe and effective in the management of *Rajonivritti*. The best way to lower increased blood pressure naturally involves creating greater balance in mind and body. *Jatamansi* (Latin name-*Nardostachys Jatamansi*) is a known calming herb in Ayurveda and Unani because of its medicinal values. Hence, in this study, an attempt is made to lower blood pressure by using *Jatamansi churna*.

AIM AND OBJECTIVE

To evaluate the effect of *Jatamansi Churna* in the management of slightly increased blood pressure after *Rajonivritti*.

MATERIAL AND METHODS

Sampling: 30 female volunteers between the age group of 44-55 years are selected who missed 12 months of menstrual cycle. The patients were registered for the present study with the help of Proforma prepared for the study.

Source of Data: Volunteers were randomly selected from the OPD, IPD of Government Ayurved College, Nanded.

Drug: *Jatamansi churna* (1-3gm) with lukewarm water twice a day for 28 days.

Instrument: Sphygmomanometer.

Inclusive Criteria: Female volunteers between age group of 44-55 years who missed 12 months of menstrual cycle.

Exclusive Criteria

- Women suffering from any chronic systemic diseases.
- Women who are taking antidepressants drugs, HRT.
- Women who have undergone hysterectomy.

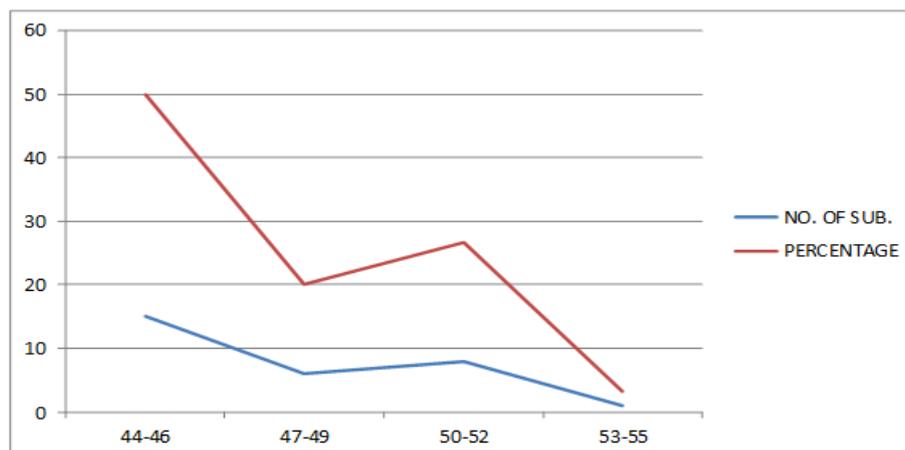
Assessment Criteria: The assessment was done considering systolic BP (SBP), diastolic BP (DBP), and mean BP readings in all the three postures that is lying down, sitting and standing at pre test i.e. 0th day, 3 mid test assessments on 7th, 14th, 21st day respectively and post test on 28th day.

Overall Assessment: The mean of both is taken and overall assessment is done.

OBSERVATION AND RESULTS

Table No.1- Age wise distribution.

Age in Years	No. of Sub.	Percentage
44 -46	15	50%
47 -49	6	20%
50 -52	8	26.67%
53 -55	1	3.33%
Total	30	100



According to age, maximum 15 (50%) patients belonged to age 44-46 years, 8 (26.67%) patients belonged to age group 50-52 years, 6 (20%) patients belonged to age group 47-49 years, and 1 (3.33%) patient belonged to age 53-55 years.

Effect of therapy is assessed by paired “t” test. The level of significance is set at 5%. $P < 0.05$, $t_{\text{calculated}} > t_{\text{table}}$ indicate significance of results.

Table No.2- Effect of *Jatamansi Churna* on blood pressure in lying down position-

	Standard Deviation (SD)	Mean of difference	Standard Error (SE)	t value	Significance
Systolic Blood Pressure	7.797	4.667	1.448	3.279	Yes
Diastolic Blood Pressure	5.373	2.467	0.998	2.514	Yes

The value of t-calculated is more than “t” table. So the effect of *Jatamansi* is significant in lying down position.

Table No. 3. Effect of *Jatamansi Churna* on blood pressure in sitting position.

	Standard Deviation (SD)	Mean of difference	Standard Error (SE)	t value	Significance
Systolic Blood Pressure	7.867	5.333	1.460	3.713	Yes
Diastolic Blood Pressure	5.329	4.133	0.989	4.249	Yes

The value of t-calculated is more than “t” table. So the effect of *Jatamansi* is significant in sitting position.

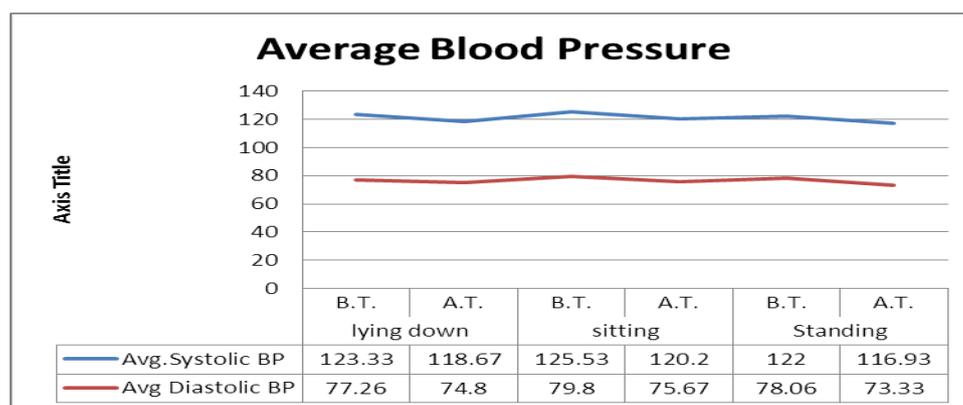
Table No. 4: Effect of *Jatamansi Churna* on blood pressure in standing position.

	Standard Deviation (SD)	Mean of difference	Standard Error (SE)	t value	Significance
Systolic Blood Pressure	6.761	5.067	1.255	4.104	Yes
Diastolic Blood Pressure	6.104	4.333	1.133	3.888	Yes

The value of t-calculated is more than “t” table. So the effect of *Jatamansi* is significant in standing position.

Table No. 5. Overall assessment of average blood pressure in lying down, sitting and standing position.

Average Blood Pressure	Lying down		Sitting		Standing	
	B.T.	A.T.	B.T.	A.T.	B.T.	A.T.
Avg. Systolic BP	123.33	118.67	125.53	120.2	122	116.93
Avg. Diastolic BP	77.26	74.8	79.8	75.67	78.06	73.33



1. In lying down position, the average systolic blood pressure reduced from 123.33 to 118.67 and the average diastolic blood pressure reduced from 77.26 to 74.8.
2. In sitting position, the average systolic blood pressure reduced from 125.53 to 120.2 and the average diastolic blood pressure reduced from 79.8 to 75.67.
3. In standing position, the average systolic blood pressure reduced from 122 to 116.93 and the average diastolic blood pressure reduced from 78.06 to 73.33.

DISCUSSION

Possible mechanisms by which blood pressure may be increased after *Rajonivritti kala* (post menopause) are as follows

1. One mechanism by which BP may be increased in aging postmenopausal women is activation of the renin-angiotensin system (RAS). Postmenopausal women exhibit increase in plasma renin activity^[4], suggesting activation of the RAS.
2. Another mechanism by which BP may be elevated is the presence of obesity. Obesity is one component of the cluster of features known as the metabolic syndrome that also includes insulin resistance, type 2 diabetes, dyslipidemia, and hyperleptinemia, all of which could impact BP. There is also evidence that even if women do not gain additional weight after

menopause, there is a redistribution of body fat favoring an increase in abdominal fat rather than subcutaneous fat in the region of the hips.^[5]

3. Whether the presence of estrogens protects against increases in BP in premenopausal women, and conversely, whether the lack of estrogens contributes to hypertension in postmenopausal women is controversial.^[6]

4. Anxiety and depression may contribute to hypertension, or conversely, women who are hypertensive may exhibit higher rates of anxiety and depression. Sympathetic activity can be increased with anxiety and chronic mental stress, leading to increased BP.^[6]

High blood pressure is a result of abnormal functioning of *Vyana* and *Udana Vayu*, *Ranjaka Pitta* and *Avalambaka Kapha* including loss of their functional integrity and coordination. As *Jatamansi* have *tikta*, *kashaya*, *madhur Rasa*, *Sheeta Virya* and *Katu Vipak*, it is *tridoshshamaka*. so it is effective in increased blood pressure. Also, increase in blood pressure can be compared to a condition called *Raktagata Vata*. In this condition vitiated *vata* gets lodged in the circulating *Rakta dhatu* (blood) and causes disturbances in its circulation. Here, *Jatamansi* naturally lowers increased blood pressure by dilating the arteries.

A Pharmacological study on *Jatamansi* showed that the essential oil obtained from rhizomes of N.J. exerted prolonged and pronounced hypotensive effect in dogs (Arora et al, 1958). However, the oil free aqueous of N.J. showed a transient hypotensive effect and ECG changes in dog's heart (Sheath and Kekre 1956).^[7] Since *Jatamansi* is high in antioxidants, it reduces oxidative stress and brings overall stress level down.

CONCLUSION

Rajonivritti is itself a normal part of life and not a disease. But increased blood pressure after menopause can have multiple etiologies and contributing factors. In the present clinical trial, it was observed that there was a marked reduction in the levels of average systolic BP and a slight reduction in diastolic BP. Hence, we can conclude that *Jatamansi* is definitely effective on blood pressure in *Rajonivritti kala* (menopause).

REFERENCES

1. Ambikadutt Shastri, edited with Ayurved Tattva Sandipika, Sushrut Samhita part-1, Sharirasthan 3/11, Chaukhamba Sanskrit Sansthan Varanasi, Eleventh edition, 1997; 21.
2. "Menopause: Overview". [Http://www.ncbi.nlm.nih.gov/](http://www.ncbi.nlm.nih.gov/). August 29, 2013.
3. IMS-International menopause. www.imsociety.org>menopause_terminology.

4. Schunkert H, Danser AH, HenseHW, Derkx FH, Kurzinger S, Riegger GA. Effects of estrogen replacement therapy on rennin-angiotensin system in postmenopausal women. *Circ.* 1997; 95: 39-4. [PubMed]
5. Wildman RP, McGinn AP, Lin J, Wang D, Muntner P, Cohen HW. Cardiovascular disease risk of abdominal obesity vs metabolic abnormalities. *Obesity (Silver Spring)*, 2011; 19: 853-860. [PubMed]
6. Hypertension in Postmenopausal women. [Http://www.ncbi.nlm.nih.gov/](http://www.ncbi.nlm.nih.gov/).2012.
7. Untitled: Shodhganga. [shodhganga.inflibnet.ac.in>bitstream](http://shodhganga.inflibnet.ac.in/bitstream).