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Comparision of Post-Menopausal Symptoms in Rural and Urban Women

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Abstract
Introduction: *Our study includes the comparision of post menopausal symptoms in rural and urban Indian women.*
Methods*: Random sample of 400 females aged between 45-70 years in post menopausal period were taken as participants for the study. The rural sample was taken from different villages of Guntur district. The urban sample was taken from Guntur city in Andhra Pradesh. To measure the severity of post menopausal symptoms, MRS (Menopausal Rating Scale) is taken as the Health Related Quality of Life scale (HRQoL). MRS includes a structural questioner containing eleven post menopausal symptoms which are divided into three sub scales (somatic, psychological and urogenital).*
Results: *Severity of Psychological and Urogenital symptoms are well pronounced in rural Indian women compared to urban. However Somatic symptoms are severe in both groups. Compared to rural the overall severity of menopausal symptoms is low in urban.*
Conclusion*: Improvement of rural health programmes in India are mandatory at this point of time to improve the health quality of rural Indian women. My study suggests lifestyle adjustments of both groups(rural and urban) and stress the importance of creating awareness about the severity of post menopausal symptoms by primary health care staff to the innocent rural women who cares little about their health. Indian government should implement better well being programmes.*
Keywords*: Post menopausal symptoms, HRQoL, Rural health, MRS*

I. Introduction

The human ovaries become unresponsive to gonadotropins with advancing age and their function declines, so that sexual cycles disappear **(menopause).** The ovaries no longer secrete progesterone and 17-estradiol in appreciable quantities, and estrogen is formed only in small amounts by aromatization of androstenedione in peripheral tissues.[1]

Estrogens inhibit secretion of cytokines such as interleukin-1 (IL-1), IL-6, and tumor necrosis factor (TNF-), and these cytokines foster the development of osteoclasts. Estrogen also stimulates production of transforming growth factor (TGF-) and this cytokine increases apoptosis of osteoclasts.[1] After menopause, almost no estrogens are secreted by the ovaries. This oestrogen deficiency leads to (1) increased osteoclastic activity in the bones, (2) decreased bone matrix, and (3) decreased deposition of bone calcium and phosphate.

In some women, this effect is extremely severe, and the resulting condition is osteoporosis. This can greatly weaken the bones and lead to bone fracture.[2] The loss of estrogens often causes marked physiological changes in the function of the body including (1) "hot flushes" characterized by extreme flushing of the skin, (2) psychic sensations of dyspnea, (3) irritability, (4) fatigue, (5) anxiety, (6) occasionally various psychotic states, and (7) decreased strength and calcification of bones throughout the body. These symptoms are of sufficient magnitude in about 15 per cent of women to warrant treatment. If counselling fails, daily administration of oestrogen in small quantities usually reverses the symptoms and by gradually decreasing the dose, postmenopausal women can likely avoid severe symptoms.[2]
Oestradiol (synthetic oestrogen) reduces the hot flushes and other symptoms of the menopause.[3]

II. Materials And Methods

This is a cross sectional comparative study. A total of 400 women are taken under study. Out of them 200 are from different villages in Guntur district, Andhra Pradesh and the remaining 200 are from Guntur city urban area, at the premises of Guntur Medical College. All the participants were given written consent. I asked these women all the questions in my questioner according to Menopausal Rating Scale.
This MRS scale contains
1.Hot flushes, sweating
2.Heart discomfort

3.Sleep problems
4.Depressive mood
5.Irritability
6.Anxiety
7.Physical and mental exhaustion
8.Sexual problems
9.Bladder problems
10. Dryness of vagina
11. Joint and muscular discomfort.

We have translated the English version of the questioner into local language to facilitate better understanding of the participant. We sought the help of female health workers to interact the women to get accurate data.

Ethics

Ethics committee of Guntur Medical College and Govt General Hospital, Guntur has issued approval certificate for this study.
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III. Statistical Analysis

Menopause Rating Scale (MRS) scale is the health related quality of life scale. It measures the severity of menopausal symptoms. Out of the eleven symptoms,

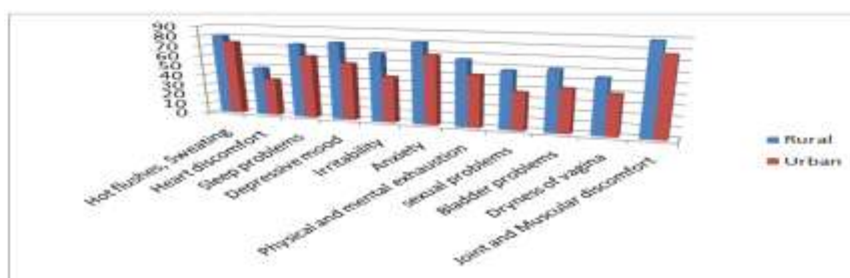
Hot flushes, heart discomfort, sleep problems, muscle and joint problems come under somatic complaints. Depression, irritability, anxiety, physical and mental exhaustion come under psychological complaints.

Sexual problems, bladder problems and dryness of vagina come under urogenital complaints.
These are the three divisions of the total complaints. Severity of each complaint is graded from 0-4. If symptom is not present it is given as 0 grade. Grade 1,2,3,4 are given for mild, moderate, severe, very severe respectively. Total score is taken for each division. Maximum total score is 44. For somatic complaints, those who obtained score 0-2 were considered to have none or few symptoms,3-4 were considered to be mild and 5-8 have moderate symptoms.[4] For psychological complaints those who obtained score 0-1 were considered to have none or few symptoms, 2-3 were considered to be mild , 4-6 have moderate symptoms and more than 6 were considered to have severe symptoms.[4] For urogenital complaints, those who obtained score 0 were considered to have none or few symptoms, 1 were considered to be mild , 2-3 have moderate symptoms and more than 3 were considered to have severe symptoms.[4]

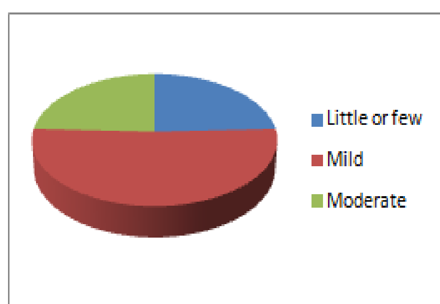
IV. Result

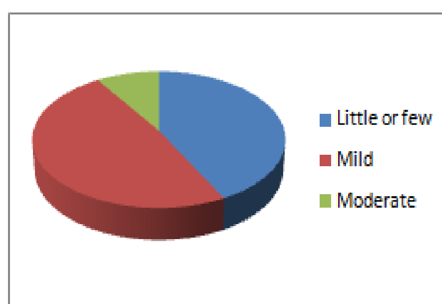
Table 1

S.no	Menopausal Symptoms	Rural(%)	Urban(%)
1	Hot flushes, sweating	80	74.28
2	Heart discomfort	48.57	37.14
3	Sleep problems	74.28	62.85
4	Depressive mood	77.14	57.14
5	Irritability	68.5	45.71
6	Anxiety	80	68.57
7	Physical and mental exertion	65.7	51.42
8	sexual problems	57.14	37.14
9	Bladder problems	60	42.85
10	Dryness of vagina	54.28	40
11	Joint and muscular discomfort	88.57	77.14



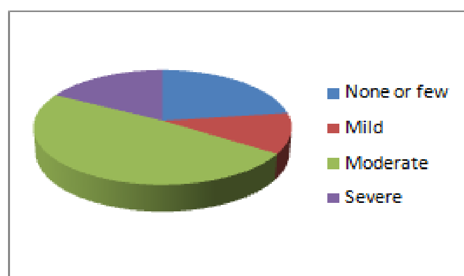
S.no	complaints	rural	urban
1	Somatic complaints		
	☐ None or few (0- 2)	22.85	40
	☐ Mild (3- 4)	48.57	45.71
	☐ Moderate (5- 8)	22.85	8.57
2	Psychological complaints		
	☐ None or few (0- 1)	22.85	31.42
	☐ Mild (2- 3)	11.42	34.28
	☐ Moderate (4- 6)	48.57	25.71
	☐ Severe (>6)	17.14	8.57
3	Urogenital Complaints		
	☐ None or few (0)	25.71	37.14
	Mild (1)	8.57	20
	Moderate (2 - 3)	31.42	28.57
	☐ Severe (>3)	34.28	14.28

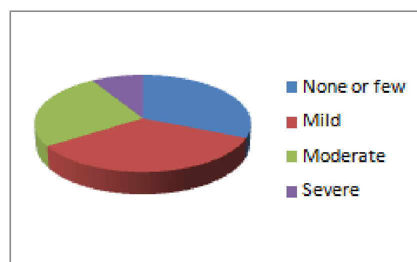




somatic symptoms

Rural Urban





Psychological symptoms

Table 1 describes that the most frequently complained symptoms by both rural and urban women are joint and muscular discomfort (88.57% and 77.14%) , hot flushes and sweating (80% and 74.28%) and anxiety (80% and 68.57%). But on comparing both groups they are less severe in urban women than in rural. The next most frequent are sleep problems (74.28% and 62.85%), depressive mood (77.14% and 57.14%) in both groups respectively.

Irritability is more in rura l(68.5%) whereas it is less in urban (45.71%). Sexual problems are more in rura l(57.14%)and less in urban (37.14%). Less number of participants complained about heart discomfort in both groups (48.57% in rural and 37.14% in urban). About 60% of rural women complained about bladder problem. Only 42.8% of urban women are suffering with them. Dryness of vagina is complained only by 40% of urban and 54.2% of rural women

Table 2 shows that among the rural women those suffering with somatic symptoms with moderate severity are 22.8% and those among the urban are 8.5%. Mild symptoms are present in 48.5% of rural women and 45.7% in urban women . None or few somatic complaints are present in 22.8% of rural and 40% of urban women.

None or few psychological complaints are seen in 22.8% of rural women and 31.4% of urban women. Mild symptoms are the complaint in 11.4% of rural and 34.2% of urban women. Moderate symptoms are complained by 48.5% of rural and 25.7% of urban women. Severity of the psychological symptoms is the complaint in 17.1% of rural women and 8.5% of urban women.

Out of the total rural women surveyed severe urogenital complaints are present in 34.2% and those of urban are 14.2%. Moderate severity is seen in 31.4% of rural women and 28.5% of urban women. Mild symptoms are exhibited in 8.5% of rural and 20% of urban women. None or few symptoms in 25.7% rural and 37.1% in urban women.

V. Discussion

Martinez JA in his study states that urban women had a high prevalence of osteoporosis and cardio vascular risk than rural women and rural women experience more hot flushes, depression, joint pain[5]. This statement coincides with my study.

According to Dos Santos Tavares DM of brazil, urban showed a greater involvement of the quality of life than the residence in rural area[6]. This statement coincides with my study.

According to Sudha Sharma and Neha Mahajan the severity of symptoms was found distressing for rural women[7], which is in correlation with my study.

The study of G K P, Arounassalamme B, states that the most common symptom is muscle pain (77.2%) and least common is the dryness of vagina (15%) among rural women of Puducherry[8]. These findings are near to my study.

The study of olaolorul FM of Nigeria states that joint and muscular discomfort was the most common symptom in urban women[9]. This statement is in correlation with my study.

A survey by Eman Elsayed Mohammed in Egypt finds that the women suffering with bladder problems is about 38.5%[10]. This finding coincides with my study. He also states that menopausal symptoms are high in rural women of Egypt which is in correlation with my study results.

The studies of Rahman etl in Malaysia [11] and Chedraui P[12] at Maturitas say that joint and muscular discomfort was the main complaint in about 80% of women. This finding coincides with mine.

The severity of sleep problems in rural women of Pakisthan according to Syeda Fakhar Batool[13] is about 77% which is in correlation with my study (74.2%).

S Metintas of Turkey states that the rural women in his country is suffering with high score of the menopausal symptoms. We observed the same in india.[14]

My finding of hot flushes of about 77.2% is near to the finding of Neena Chuni's study in Nepal women (69.7%). [15]

Manal F.Moustafa, in his survey in Qena city observed that there is a decrease in quality of life due to menopause[16]. It coincides with my results.

VI. Conclusion

Female health assistants who work in primary health centres, should address health strategies in rural areas. Government of India should implement more programmes for the improvement of quality of life of rural women. Many studies along with my present study stress the importance of creating awareness of rural stalk about early identification of symptoms of menopause. Thus severity of these in urban is better comparing rural. Life style adjustments are mandatory to improve the quality of life in both groups.

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