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Screening the Clinical Parameters in Menopause Women

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ABSTRACT

Menopause is the term used to describe the permanent cessation of ovarian function in women. It marks the transition of women from fertile phase to non-fertile phase. The typical age for onset of menopause in women normally is between late 40s and early 50s but in many cases it may vary. Menopause is due to hormonal imbalance occurring in women during the menopause period. The hormone estrogen responsible for ovulation will gradually decrease in the body. Estrogen acts through many different mechanisms to help keep the blood vessels flexible and to modulate other hormone activities that can contribute to developing high blood pressure. This is the reason behind the absence of cardiac arrest in women before menopause. Blood pressure of a menopause woman is known to be high. The work has been designed to measure the clinical parameters like blood pressure, weight, BMI, pulse rate, heart beat rate, blood sugar level in different age group of menopause women. From the results it is evident that BMI gradual increase according to the menopause age of the women .whereas heart rate and blood pressure showed insignificant increase from 4 th year of menopause period whereas remarkable increase was observed in all parameters from 8 years of menopause period.

Keywords: Estrogen, high blood pressure, pulse rate, blood sugar level, BMI

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INTRODUCTION

It is the point at which menstruation ceases, and marks the end of a woman's fertility. It is typically diagnosed after 12 months without a menstrual period. Menopause is an unavoidable change that every woman will experience, assuming she reaches middle age and beyond. Menopause has a wide starting range, but can usually be expected in the age range of 42–58 (Bucher, et al. 1930). Menopause can be officially declared (in an adult woman who is not pregnant, is not lactating, and who has an intact uterus) when there has been amenorrhea (absence of any menstruation) for one complete year. However, there are many signs and effects that lead up to this point, many of which may extend well beyond it too. These include: irregular menses, vasomotor instability (hot flashes and night sweats), atrophy of genitourinary tissue, increased stress, breast tenderness, vaginal dryness, forgetfulness, mood changes, and in certain cases osteoporosis and/ or heart disease. These effects are related to the hormonal changes a woman's body is going through, and they affect each woman to a different extent. The only sign or effect that all women universally have in common is that by the end of the menopause transition every woman will have a complete cessation of menses. Menopause tends to be associated with an increased risk of obesity and a shift to an abdominal fat distribution with associated increase in health risks. Changes in body composition at menopause may be caused by the decrease in circulating estrogen, and, for fat distribution shifts, the relative increase in the androgen-estrogen ratio is likely to be important. Clinicians need to be aware of the likelihood of weight gain during the premenopausal and postmenopausal years because behavioral strategies for weight loss can be effectively used in this population. [Relationships between various clinical parameters and menopause: weight gain at the time of menopause [2]. The present study has been designed to study the clinical parameters such as heart rate, Blood pressure, weight, BMI and pulse rate in menopause women.

MATERIALS AND METHODS

40 menopause Female subjects were selected for the study and grouped as group I, II and III. Subjects were screened for pre existing diseases if any, through our co-investigator who is a registered medical practitioner [Dr.Vivekanand, General Surgeon, of KMC Hospital Trichy.]

Group I represents females with 1-4 years of menopause age

Group II represents females 5-8 years of menopause age

Group III represents female 9-20 years of menopause age.

Selected females were screened for blood pressure [using standard procedure of sphygmomanometer], Heart rate [using stethoscope], pulse rate, weight and BMI. The results were recorded for statistical evaluation.

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RESULTS

Results are quite interesting to note that group III women alone showed significant increase in all the parameters such as blood pressure, pulse rate, heart rate, BMI and body Weight whereas Group II &I showed an insignificant increase in weight and BMI but other parameters showed a significant increase in heart rate and pulse rate

MENOPAUSE PERIOD	MEAN ± STANDARD ERROR					
	Weight (kgs)	BMI (kg/m²)	B.P(mmHg)		heart rate (beats/min)	Pulse rate (beats/min)
			systolic	diastolic		
1-4 years	63.3 ± 3.58	28.4 ± 1.34	130.8 ± 5.19	79.9 ± 2.59	72.7 ± 1.54	72.5 ± 1.6
5-8 years	60.3 ± 2.94	26.4 ± 1.27	130.5 ± 4.59	87.2 ± 2.33	77.8 ± 1.097	77.7 ± 1.15
9-20 years	65.1 ± 2.75	29.6 ± 1.24	143.6 ± 7.56	81.2 ± 4.62	81.1 ± 4.36	80.5 ± 4.5

DISCUSSION

The results are quite promising to note that till 4 years of menopause period there is not much significant increase in the selected parameters may be because of scanty estrogen secretion in the subjects. Since the estrogen secretion significantly reduces to nill after 5 years which is indicated by the results such as increased BP, Heart Rate, BMI, Pulse Rate and weight etc. This work form a basis to screen the exact period when the hormone production becomes insignificant so that we can create an awareness among the menopause women to be alert in their health checkups to avoid geriatric diseases [3-6].

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