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Research Article

Reproductive span observed in women at Durg, Chhatigarh, India

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Abstract: Study of reproductive span observed in women at Durg district in Chhatis Garh has been carried out by the investigators. This study has given the information about menarche, menopause and menstrual cycle in women.

Keywords: Menarche, menopause, menstrual cycle, reproductive span, Enzyme Linked Immunosorbent Assay, Follicle Stimulating Hormone.

Abbreviation: Chhatisgarh (CG) Enzyme Linked Immunosorbent Assay (ELISA), Follicle Stimulating Hormone (FSH), Food and Drugs Administration (FDA).

INTRODUCTION

Perusal of available literature revealed much information about the present study in which reproductive span of menstruating women were tried to be observed. In women the fertile period starts at the menarche (1st menstrual period) and ends with the menopause (cessation of menstrual periods) which is

known as reproductive span. At around age 12, girls enter puberty a time when increased estrogen production causes the starts of menstruation and the development of secondary sexual characteristics such as breast and pubic hair. Menopause is the end of women's reproductive life. It can be defined as a date of a woman's final menstrual period plus one year. Women usually notice its effects in their late 40s. The onset of menopause signals the ending of a woman reproductive cycle. It actually occurs when a woman permanently stops having menstrual periods for consecutive 12 months.

MATERIAL AND METHOD

For this study, women of age ranging from 35-55 years were selected, their age of menarche and present status of menstrual cycle were noted. Blood samples of women were collected to estimate the concentrations of FSH. The method used for the purpose is ELISA. It

is a useful and fundamental tool in estimating materials in the solution such as serum. Simple arithmetic mean was used for calculations.

RESULT & DISCUSSION

A total of 91 samples were collected over the period of five months i.e. from December 2006 to April 2007. The present study has given many interesting findings. The overall average age of menopause observed is 44 years (Table 1 and Graph 1). The total number of cases of menopause observed is 32 (i.e. 35.16%). The range of menopause observed is 33-54 years. Premature menopause observed in 4 (i.e. 12.5 %) cases. Only 3(9.37%) cases were seen where menopause has occurred in fifties, the average age of their menopause was 51.3 years. There are 14 (i.e.43.75%) cases which show menopause between 40-44 years of age and the average age was found to be 42.2 years. There are 11 cases (i.e.38.75%) where menopause has occurred between the age of 45-49 years and their average age was found to be 46.8 years. In the present study, the average age of menarche was 13.4 years. As per Hada *et. al.* (2014) in Jhalawad Rajasthan, menarchial age of school going girls was reported <13 years. S. Rokade and Mane (2008) had found it 12.6 years in Maharashtra. The reproductive span observed in these women's 30.4 years.

The data for the study-based in the 1998-99 National Family Health Survey-drew samples from 100,000 women in the age band of 15-50 years, across 26 states. The study revealed that the percentage of young menopausal women was the highest in Andhra Pradesh at 31.4 per cent followed by Bihar (21.7 per cent) and Karnataka (20.2 per cent). Kerala

(11.6 per cent), West Bengal (12.8 per cent) and Rajasthan (13.1 per cent) were a little lower. Overall, the percentage of women hit by premature menopause is marginally lower in urban areas (16.1 per cent) as against rural (18.3 per cent). According to McKinlay, 1981; women from ancient Greece experienced menopause at the same age as modern women, with the symptomatic transition to menopause usually commencing at approximately age 45.5-47.5 years the average age of menopause is 51 years. According to FDA (2003) the average age of menopause is 50.5 years. The present study too has shown similar findings, as 3(9.37%) cases have shown average age of 51.3 years of age whereas 11 cases (i.e.38.75%) cases are showing the average age of menopause as 46.8 years, in this category menopause was experienced between the age of 45-49 years of age. An "early menopause" on the other hand is defined as last period ever between the ages of 40 to 45; the present study has 14(43.75%) such cases which fall under the category of early menopause where average age was recorded as 42.2 years. A pan-India survey, conducted recently by the Bangalore-based Institute for Social and Economic Change and reported the natural age for menopausal onset is between 45 to 55 years with a mean age of 51 years, worldwide. In this study, the overall average age of menopause observed is 44 years. The range of menopause observed is between 33-54 years. The average reproductive span in the present study is found to be approximately 30 years.

CONCLUSION

From the present study several facts were concluded that the cases of

premature menopause are a common feature like other parts of the country, in fact only 3(9.37%) cases were found where menopause had occurred in their fifties. Early menarche has shown longer reproductive span i.e. of 29.68 years and

late menarche ended with only 26.68 years, the average overall age of menopause was recorded 44 years while it is 37 years for premature menopause i.e. cases below 40 years of age.

Table 1: Milestones in Reproductive Life

Milestones of Reproductive life	Average Age (in 32 cases) Years
Menarche	13.6
Menopause	44
Reproductive Span	30.4

Graph 1: Showing Average Ages of Reproductive Milestones

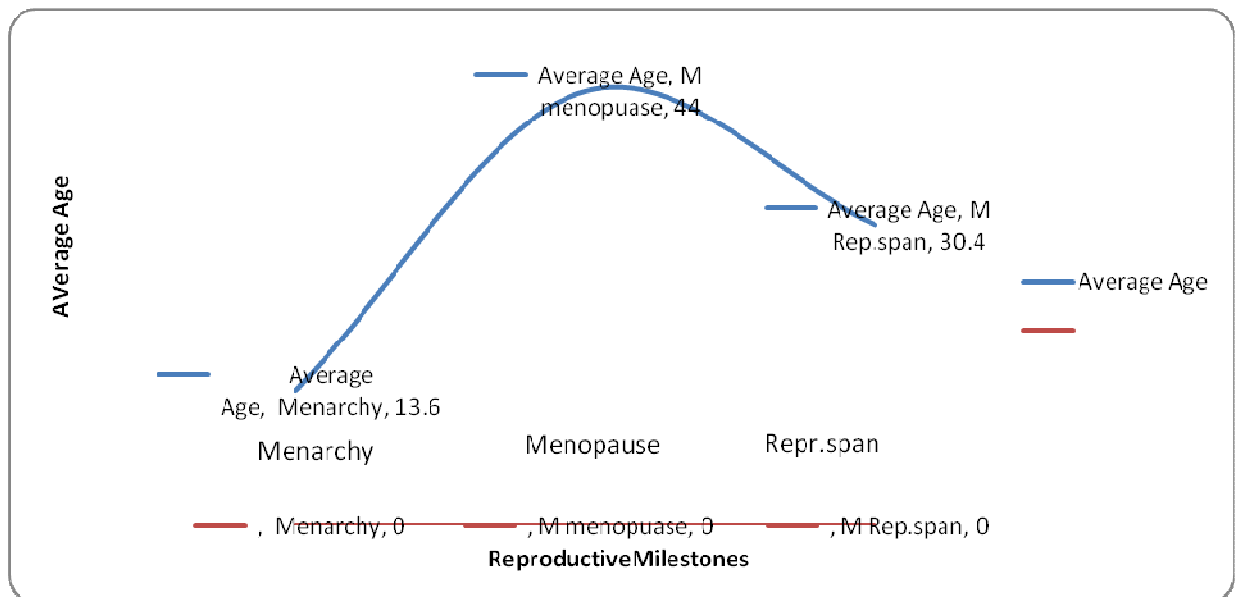


Table 2: The Number of cases in early, mid and late menarchy age group.

S. NO.	Menarchy Age Group	Number of cases	Percentage(%)
1.	Early menarchy (12-13 years)	16	50
2.	Mid menarchy (14-15 years)	13	40.6
3.	Late menarchy(16 years)	3	9.37

Graph 2: Showing number and percentage of Menarchy

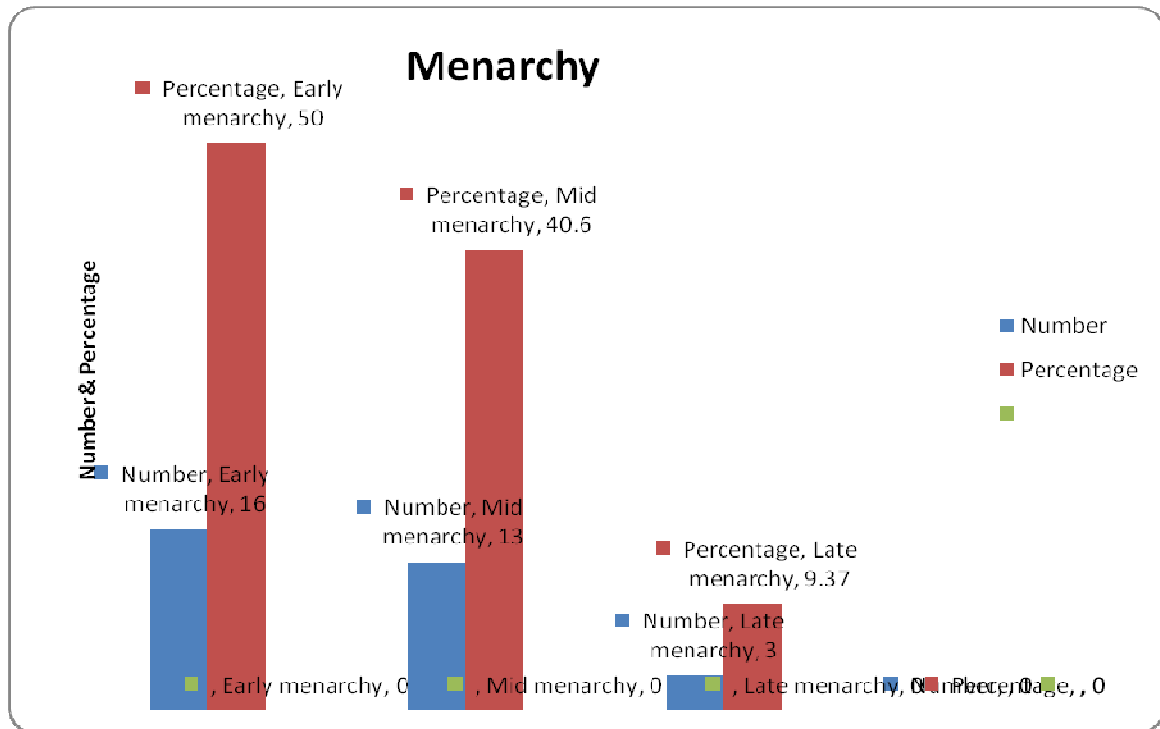


Table 3: Number and Average Age of Menopause

Cases observed	Number of Menopausal cases	Average Age
91	32	44 years

Table 4: The average age of menopause in early, mid and late years of menarchy age group.

Menarchy age group	Average age of menopause
Early menarchy (12-13 years)	44.18 years
Mid menarchy (14-15 years)	44.07 years
Late menarchy (16years and above)	42.66 years

Graph 3: The average age of menopause in early, Graph 4: The average reproductive life span in mid and late years of menarchy age group

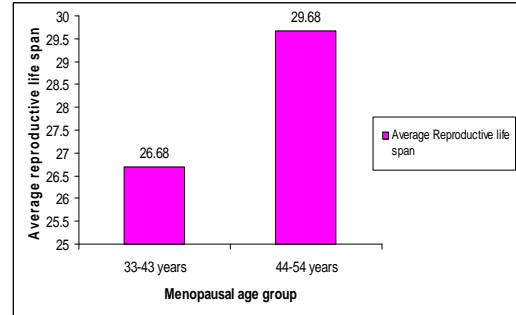
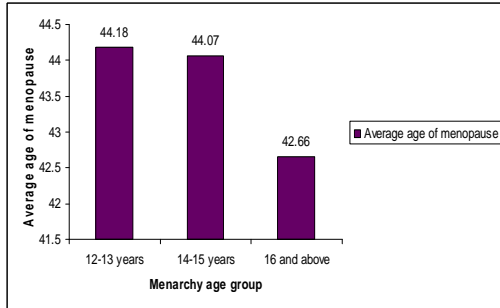
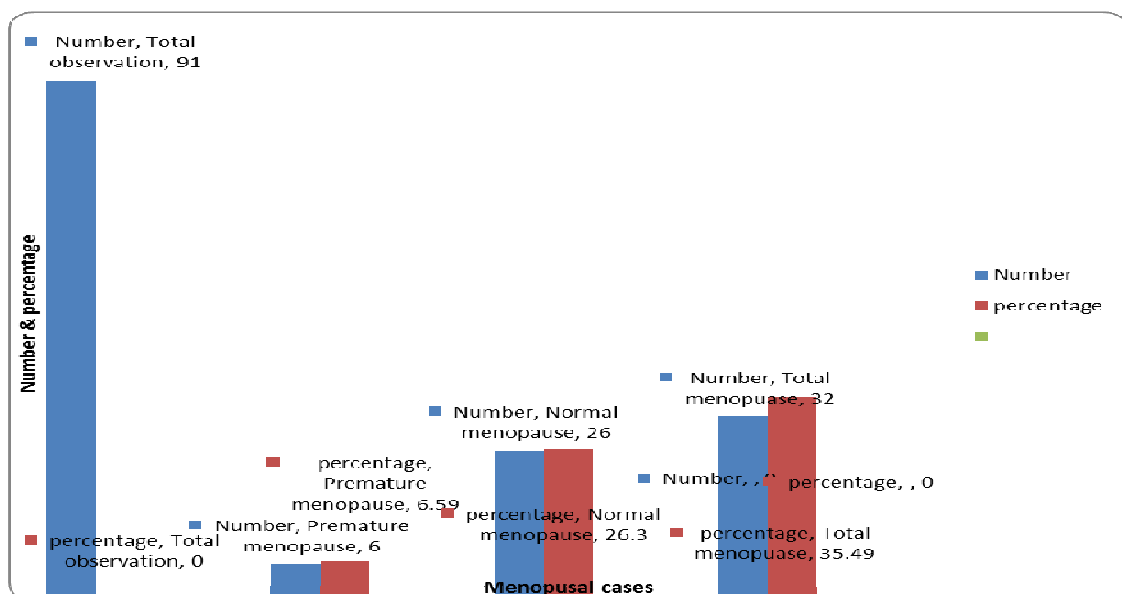


Table 5: Cases of early, mid and late menopause

S.No.	Cases of menopause (Age wise) (Total sample-91)	Number (Total -32)	Percentage%		Average Age (In years)
			Out of 32	Out of 91	
					Overall Av.age-44
1	up to 40 years	6	18.75	6.59	38
2	>40years	12	37.2	13.07	42.21
3	>45years	11	34.37	12.08	46.09
4	>50 years	3	9.37	3.29	51.3

Graph 5: Cases of early, mid and late menopause



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