

Age at Menopause in Educated Women of Amritsar (Punjab)

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ABSTRACT In the present study, an attempt has been made to determine median age at menopause and frequency of various related clinical symptoms among educated women of Amritsar district of Punjab. The data for this cross-sectional study were collected at random from 539 women aged 40-50 years. In-depth interviews were conducted among Amritsar women for collecting information about menopause and symptoms associated with it. 256 women (47.50%) of the study population were classified as postmenopausal, i.e., having no vaginal bleeding during the last 12 months, and 283 women (52.50%) were perimenopausal, i.e., having irregular vaginal bleeding during the last 12 months. Median age at menopause was 47.54 ± 2.31 years which is close to the estimates from other Punjabi populations. The most common clinical symptoms associated with menopause were hot flushes and night sweats (55.08%), insomnia (53.12%), headache and body-aches (38.28%), fatigue (42.18%), irritability (35.15%), perspiration (34.76%), palpitation (22.26%), short breath (20.31%), nervous tension (10.56%) and depression (8.20%).

INTRODUCTION

Menopause is the time of a woman's life when reproductive capacity ceases (WHO, 1996). The main reason for climacteric problems and menopause is the end of the ovarian function (Gosden, 1985; Canto and Prado, 1993; Gosden and Faddy, 1995; Faddy and Gosden, 1996). The ovary is the only endocrine gland that stops its functioning before the final stages of life. The root of this natural transformation though lies in biological structure of women (Richardson, 1993), yet it produces a wide range of effects on a woman's behaviour and psyche resulting in extremely unpleasant symptoms. The age at which natural menopause occurs is between the ages of 45 and 55 years for women worldwide. It is generally accepted that the average age at menopause is about 51 years in industrialized countries (Richardson, 1993; WHO, 1996), but the data are inconsistent for the developing world (WHO, 1996) because of methodological problems (McKinley, 1994). But, in developing countries, it ranges from 43 to 49 years (Sidhu and Sidhu, 1987; Brambilla and McKinlay, 1989; Sethi et al., 1996; Neslihan et al., 1998).

Menopause is both an objective hormonal event and a subjectively perceived endocrine transition. The degree of symptomatology experienced by an individual woman can be influenced by a number of factors, including age at menopause and psychosocial attitude towards menopause. A multiplicity of symptoms has been attributed to the menopause. Most of the information on symptoms of menopause has been obtained

from the populations in industrialized countries and sparse information is available from the countries like India. Therefore, in the present study, an attempt has been made to estimate the median age at menopause and climacteric complaints in Amritsar women of Punjab (India).

MATERIALS AND METHODS

The data for this cross-sectional study were collected at random from 539 educated women (up to graduation level) aged 40-50 years of Amritsar district of Punjab (India). First of all, the women were taken into confidence. Then the information regarding age, educational status, age at menarche, health status and continuation or cessation of menstrual cycle was collected from each subject through interview schedule. In-depth interviews were conducted among postmenopausal women for collecting information about clinical symptoms of menopause. A sample recheck from 50 subjects was carried out to ascertain the validity of the collected information before conducting the actual interview. Out of 539 women, 256 women (47.50%) were classified as postmenopausal, that is, who had reached natural menopause and had their last menstrual bleeding at least one year previously (WHO, 1996), and the remaining 283 women (52.50%) were perimenopausal, i.e., having irregular vaginal bleeding during the last 12 months. Median age at menopause of 256 women has been computed through the Probit analysis (Finney, 1962) and percentage prevalence of various menopausal symptoms was also calculated.

RESULTS AND DISCUSSION

Frequency distribution of females according to natural age at menopause is shown in Table 1. It is apparent from Table 1 that the youngest female to experience natural menopause was 40 years old while the oldest one was 50 years old. Probit analysis of the status quo data yielded median age at menopause as 47.54 ± 2.31 years.

The study of mean/median age at menopause from various populations of Punjab (Table 2) indicates that menopausal ages of the present

Table 1: Total number of subjects contacted, menopausal subjects and percentage of subjects who attained menopause and median age at menopause

Age (yrs)	No. of subjects contacted	Freq- uency of menop- ausal subject	Cumulative frequency	Percen- tage	Probit analysis
40	35	1	1	0.39	2.34
41	39	2	3	1.17	2.73
42	50	5	8	3.13	3.14
43	58	10	18	7.03	3.52
44	50	16	34	13.28	3.88
45	52	20	54	21.09	4.19
46	50	23	77	30.08	4.47
47	48	30	107	41.80	4.79
48	45	39	146	57.03	5.18
49	52	50	196	76.56	5.73
50	60	60	256	100.00	—

Median age at menopause = 47.54 ± 2.31 years.

Table 2: Mean/Median age at menopause of some Punjabi populations

Population	Mean/Median age at menopause	Investigator
Punjabi Khatri of Delhi	46.33	Ghosh and Kumari (1973)
Punjabi women	44.68	Singh and Ahuja (1980)
Punjabi Jat Sikh women	48.62	Singal and Sidhu (1982)
Punjabi Bania women	47.33	Singal and Sidhu (1982)
Sikh Harijan women	46.91	Sidhu and Sidhu (1987)
Hindu Harijan women	46.69	Sidhu and Sidhu (1987)
Bazigar females of Punjab	46.98	Sidhu (2003)
Punjabi Khatri working women	49.61	Sethi et al. (1996)
Punjabi Khatri non-working women	46.86	Sethi et al. (1996)
Punjabi educated working women	47.54	Present study

sample are almost comparable with the females of other communities of Punjab except Punjabi Khatri working women.

In Indian populations, different ages of menopause have been reported by various investigators. In Brahmin females of Maharashtra, Rakshit (1962) reported the mean age at menopause as 45.60 years. In Brahmin women of West Bengal, the age at menopause is 47.10 years (Poddar, 1972). Gogoi (1972) studied Ahom women of Assam and reported the onset of menopause at 48.44 years. Ghosh and Kumari (1973) reported menopause at 44.60 years in Sindhis and 46.35 years in Khatri of Delhi.

Mean/median age at menopause varies substantially even between the Asian women. Median age at menopause in the present study is lower than that reported for Thai women (49.30 years; Kono et al., 1990), Malaysian women (50.70 years; Ismael, 1994), Turkish women (51.00 years; Neslihan et al., 1998) and Pakistani women (50.00 years; Yahya and Rehan, 2002) but almost similar among United Arab Emirates women (Rizk et al., 1998).

According to WHO (1996), a variety of symptoms occurring either singly or together are frequently reported as being a part of menopausal symptom. These include urinary problems, depression, nervous tension, palpitations, headaches, insomnia, lack of energy, fluid retention, backache and difficulty in concentration. However, it is now recognized that most of these symptoms are not specific to the menopause. Many are related to ageing process or occur because of stresses in mid-life years. Hot flushes and night sweats are the symptoms most consistently associated with menopause, although their prevalence varies in different cultures. For example, the prevalence has been reported to be 23% in Thai women (Chompo-otweep et al., 1993), 32% in Pakistani women (Yahya and Rehan, 2002), 45% in North American women (McKinlay et al., 1992) and United Arab Emirates women (Rizk et al., 1998), 73.90% in Dutch women (Oldenhav and Jaszmann, 1991) and Turkish women (Neslihan et al., 1998). In the present sample, the prevalence of hot flushes and night sweats was 55.08% (Table 3). The other symptoms associated with menopause in the present study were insomnia (53.12%), headache and body-aches (38.28%), fatigue (42.18%), irritability (35.15%), perspiration (34.76%), palpitation (22.26%), short breath (20.31%),

Table 3: Frequency of various symptoms of menopause among Punjabi educated women

Symptoms	No. of subjects	Percent frequency of subjects
Hot flushes and night sweats	141	55.08
Insomnia	98	53.12
Headache, backache, muscle and joint pain	136	38.28
Fatigue	108	42.18
Irritability	90	35.15
Perspiration	89	34.76
Palpitation	57	22.26
Short breath	52	20.31
Nervous tension	26	10.56
Depression	21	8.20

nervous tension (10.56%) and depression (8.20%). The prevalence of menopausal symptoms of the present sample is quite high, but these women consider these symptoms as a natural change of life.

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