Postmenopausal symptoms in a group of rural Xhosa women

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Abstract

Background: To describe the incidence and understanding of early postmenopausal symptoms in rural Xhosa women.

Methods: After written informed consent, 137 women were interviewed within five years after natural menopause using the Greene Climacteric Scale. Body mass indices were calculated, and blood levels of FSH, LH and oestradiol were determined.

Results: The mean age of menopause was 50 years amongst the 118 women who met the study criteria. Ninety-four (80%) patients experienced hot flushes, with 20% describing them as extreme. Sixty-nine percent of patients experienced nocturnal sweating. Most of the women (111; 94%) had never heard of hormonal therapy. Serum oestradiol levels rose with increasing body mass index, but did not achieve significance.

Conclusions: These rural South African women experienced the menopause at a comparable age to Caucasian women. Although they had a high incidence of vasomotor symptoms, they were unaware of the potential benefits of hormonal therapy.

Introduction

Menopausal symptoms, though well tolerated by some women, may be particularly troublesome in others. Severe symptoms compromise overall quality of life for those experiencing them.[1] Hormonal therapy is very effective in treating these complaints.[2] Postmenopausal symptoms are well known and basically understood by women in developed countries. However, the incidence and understanding of these symptoms amongst cultures in developing countries has long been debated and remains poorly documented.[3]

In a study conducted amongst urban African women, Mashiloane *et al.* found that 40% of women experienced menopausal symptoms, but only 19% believed that hot flushes were related to the menopause.[4] While the incidence of postmenopausal symptoms amongst rural African women is not known, it could be expected that knowledge of the menopause and possible interventions would be even less well understood by such women.

This study was performed to describe the incidence and understanding of early postmenopausal symptoms in rural Xhosa women from the King Williams Town district.

Methods

The study was conducted in King William's Town in the Eastern Cape Province of South Africa. The study population comprised 137 rural Xhosa women from a culturally homogenous group. These women, who had a wide range of complaints, were attending the private practice of the principal author. A registered nurse explained the nature of the study to the women in their home language. After giving informed written consent, during which confidentiality was ensured, the women were interviewed privately by the same registered nurse in their home language. Data was collected between 18 March and 13 June 2003.

Women >45 years of age with a period of amenorrhoea of >12 months were included. The following exclusion criteria were applied:

- Unnatural menopause, e.g. surgical or radiotherapy for cervix cancer.
- Menopause > five years prior to study, to avoid loss of recall.
- Medications such as anxiolytics, antidepressants, anti-hypertensives and hormonal preparations to avoid treatment-related effects.

After documenting the descriptive data, the symptoms were assessed using a standard instrument, namely the Greene Climacteric Scale.[5] This widely used tool assesses vasomotor, somatic and psychological symptoms. The patient's body mass index was

then calculated and a blood sample was drawn to determine the FSH, LH and oestradiol levels. In addition to the period of amenorrhoea, patients who did not have an FSH value of >30 mIU/ml and a LH value of >16 mIU/ml were excluded. The biochemistry results were made available to the women.

Apart from numbers and percentages, data are expressed as mean or median with standard deviation or range. Differences in means were analysed using the two-tailed Student's t-test. A p value of less than 0.05 was regarded as significant. The Epi Info 6 software package was used for the analyses.

Results

All of the 137 women who met the initial inclusion criteria agreed to participate. However, upon receipt of the biochemistry results, 19 women did not meet the minimum FSH and LH levels and thus were excluded from analysis. This left 118 women in the study group.

The mean age of the group was 53.6 (range 45-61) years, while the mean age at onset of menopause was 50.2 (range 45-57) years. With regard to education, 13 (11%) were illiterate and 35 (30%) had less than eight years of schooling. Most of the women, namely 71 (60%), were unemployed. Of those who were employed, 14 (12%) were skilled, e.g. teachers, and 33 (28%) were unskilled, e.g. cleaners. The symptoms experienced by the patients are shown in Table I.

Questions representing symptom groupings are shown as a footnote below Table I. Of particular interest was the fact that 80% of the patients experienced hot flushes, with 20% describing them as extreme. Sixty-nine percent of the patients experienced sweating at night. Of the entire group, 111 (94%) had never heard of hormonal therapy.

The median FSH level was 64.8 mIU/ml (range 30-151), the median LH level was 33.7 mIU/ml (range 17-151), and the median oestradiol level

Table I: Symptoms according to the Greene Climacteric Scale n (%)

Symptom	Not at all (0)	A little (1)	Quite a bit (2)	Extremely (3)
1. Heart beating quickly or strongly	95 (80.5)	19 (16.1)	4 (3.4)	0
2. Feeling tense or nervous	62 (52.6)	53 (44.9)	3 (2.5)	0
3. Difficulty in sleeping	64 (54.2)	49 (41.5)	5 (4.2)	0
4. Excitable	103 (87.3)	15 (12.7)	0	0
5. Attacks of panic	99 (83.9)	19 (16.1)	0	0
6. Difficulty in concentrating	33 (28)	57 (48.3)	28 (23.7)	0
7. Feeling tired or lacking in energy	53 (44.9)	56 (47.5)	9 (7.6)	0
8. Loss of interest in most things	94 (79.7)	23 (19.5)	1 (0.9)	0
9. Feeling unhappy or depressed	86 (72.9)	32 (27.1)	0	0
10. Crying spells	89 (75.4)	27 (22.9)	2 (1.7)	0
11. Irritability	94 (79.7)	22 (18.6)	2 (1.7)	0
12. Feeling dizzy or faint	59 (50)	44 (37.3)	15 (12.7)	0
13. Pressure or tightness in head or body	69 (58.5)	42 (35.6)	7 (5.9)	0
14. Parts of body feel numb or tingling	90 (76.3)	25 (21.2)	3 (2.5)	0
15. Headaches	22 (18.6)	48 (40.7)	46 (39)	2 (1.7)
16. Muscle and joint pains	19 (16.1)	57 (48.3)	38 (32.2)	4 (3.4)
17. Loss of feeling in hands or feet	95 (80.5)	23 (19.5)	0	0
18. Breathing difficulties	89 (75.4)	24 (20.3)	5 (4.2)	0
19. Hot flushes	24 (20.3)	36 (30.5)	35 (29.7)	23 (19.5)
20. Sweating at night	37 (31.4)	34 (28.8)	37 (31.4)	10 (9)
21. Loss of interest in sex	61 (51.7)	42 (35.6)	8 (6.8)	7 (5.9)

Note: Questions representing factor groupings: 1-11 psychological factors, 12-18 somatic factors, 19-20 vasomotor symptoms, 21 sexual dysfunction.

Table II: Age and biochemistry within BMI categories

Characteristic	A BMI < 25 n = 28 (23.7%)	B BMI 26-35 n = 63 (53.4%)	C BMI > 35 n = 27 (22.9%)	P value NS
Age (years)	54 (46-61)	53 (46-60)	55 (45-59)	B:C < 0.01
FSH mIU/ml	67 (35-151)	67 (30-133)	51 (30-97)	A:C < 0.01
LH mIU/ml	39 (18-114)	34 (17-151)	25 (17-61)	A:C = 0.04
Oestradiol pmol/L	65 (65-408)	94 (65-697)	106 (65-160)	NS

Results given as median and range, BMI = body mass index, NS = not significant.

was 86.5 pmol/L (range 65-697). The median body mass index (BMI) was 29 (range 19-51). Using the BMIs, we grouped the women into three classes, namely lean to normal (BMI 25), obese (BMI 26-35) and morbidly obese (BMI >35). The serum oestradiol and other parameters are shown in Table II. Patients with normal BMIs had significantly higher FSH and LH levels and lower (though not significantly so) oestradiol levels.

Discussion

The mean age of menopause was 50 years. This is up to two years later than that found by two other African studies,[4,6] but earlier than the 51 years of a large American study amongst Caucasian women.[7] Taken together, these mean ages probably reflect a normal range for the onset of natural menopause over approximately five years.

Our study used strict criteria (amenorrhoea and gonadotrophins) to define the natural menopause. This may be less important when investigating symptoms widely accepted as occurring before the menopause and which include hot flushes, but is critical when symptoms of oestrogen withdrawal are reported. Only 16% of the women in our study were not troubled by muscle and joint pain. Although the median BMI in our group was raised (29), it is not clear whether this alone can explain these somatic complaints. Recently, a study was conducted by telephonic interview amongst Chinese women aged 40-60 years with a history of natural or surgical menopause.[8] They also found the most frequently reported symptom to be muscle and joint pains (57%). In similar fashion, a Nigerian study[6] found joint and bone pains to be the

most prominent symptom (40%). These similarities therefore extend across ethnic groups. While certain authors believe that African Americans have slower rates of skeletal remodelling and lower rates of osteoporosis[9], others are not convinced that there is currently sufficient research to support this position.[10]

As expected, we demonstrated increasing oestradiol levels with increasing BMI, but these results did not achieve significance. However, morbidly obese women did have significantly lower levels of gonadotrophins compared to normal or lean women. They may therefore be less prone to vasomotor symptoms and symptoms of oestrogen deficiency, such as vaginal atrophy.

Vasomotor symptoms, consisting of hot flushes and/or night sweats, occur in 40-85% of women who experience a natural menopause.[7,11-13] We intentionally recruited women with a recent onset of menopause (final menstruation less than five years prior to the study) to ensure reliable recall. The mean duration of menopause in our study was therefore three years, compared with 11 years in the one by Mashiloane et al.[4] Of particular interest was the fact that 80% of the postmenopausal rural African women in our study experienced hot flushes, with 20% describing them as extreme. This is much higher than the figures of 48% in the Durban study[3] and 30% in the Nigerian study.[6] A study group from the Netherlands[14] also used the Greene Climacteric Scale to describe symptoms in their population. Reporting their results as a mean score for each item, they found a score of 1.36 for hot flushes in their group of postmenopausal women. The comparative score in this study was higher, namely 1.48.

While the Durban study[4] looked at urban African women, ours investigated the situation amongst rural African women. Although most of the women in our study were unemployed, 59% had a secondary level of education. Despite this, 94% of the group had never heard of hormonal therapy. Mashiloane et al.[4] have emphasised the importance of general practitioners and clinics in providing relevant health-related information to communities, including information relating to hormonal therapy.

Conclusion

This group of rural South African women experienced the menopause at an age comparable to that of Caucasian women. Although they had a high incidence of vasomotor symptoms, they were unaware of the potential benefits of hormonal therapy.

Conflict of interest:

None

References

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