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PATTERN OF MORBIDITY AMONG WOMEN IN THANE, MAHARASHTRA

Community Medicine

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ABSTRACT

This cross-sectional descriptive study was conducted in March 2018 on 224 women attending a health camp to ascertain their morbidity pattern. Nearly three-fourths were asymptomatic but had attended the health camp for a general health check-up, indicating high level of health awareness despite relatively low educational status. The mean systolic and diastolic blood pressure was 119.51 +/- 17.67 mm Hg (95% CI: 117.20 - 121.82 mm Hg) and 76.70 +/- 10.19 mm Hg (95% CI: 75.36 - 78.03 mm Hg), respectively. The mean levels of haemoglobin and random blood sugar were 10.91 +/- 1.45 gm/dl (95% CI: 10.72 - 11.10 gm/dl) and 122.61 +/- 49.40 mg/dl (95% CI: 116.14 - 129.08 mg/dl), respectively. Only a quarter of the 78 women examined had normal Pap smear. There is a need for periodic follow-up tests for women with border-line and abnormal findings.

KEYWORDS

Female Morbidity, Health, Women

INTRODUCTION

As compared to their male counterparts, women tend to have a longer life span [1] but despite this biological advantage, women tend to have higher morbidity rates. This gender-based discrepancy between morbidity and mortality rates has been called "gender paradox", [2] which has been associated with a greater willingness among women to accept and report illness resulting in their higher utilization of health care services. [3,4] Though genetic and hormonal factors influence gender differences in morbidity, several facets of lifestyle probably act as triggers for these gender differences. [5] Various determinants for women's health care seeking behaviour include distance of the health facility from home and duration of illness, [6] caste and socio-economic status, [7] women's education and birth order [8] and perceived quality of care. [9] The objective of this study was to determine the morbidity pattern of women who attended a health camp.

MATERIAL AND METHODS

This cross-sectional descriptive study was conducted to ascertain the morbidity pattern of women who attended a health camp conducted by Chhatrapati Shivaji Maharaj Hospital, Kalwa, Thane in March 2018. Demographic and socioeconomic data were obtained from all women who attended the health camp using a pre-validated formatted questionnaire, which contained questions pertaining to their age, marital status, occupation, income, education and health-related symptoms. Education was measured as number of years of formal schooling. The socio-economic status was determined as per Kuppuswamy's Socioeconomic Status Scale, updated for the year 2018. [10]

In all participants, systolic and diastolic blood pressure (BP) were measured on the left brachial artery in the sitting position by the same female doctor, using the same pre-calibrated mercury sphygmomanometer to preclude observer and instrument-related errors. ENT examination was performed by an ENT specialist. Routine urine examination was done and haemoglobin and random blood sugar (RBS) levels were estimated.

The data were analyzed using EpiInfo Version 7.0 (public domain software package from Centre for Disease Control and Prevention, Atlanta, GA, USA). Continuous data were presented as Mean and Standard deviation (SD). The 95% Confidence Interval (CI) was expressed as: "[Mean – 1.96*Standard Error] - [Mean + 1.96*Standard Error]". A cut-off point of 0.05 was established for the p-value for determining statistical significance.

RESULTS AND DISCUSSION

A total of 224 women attended the health check-up camp. Occupationally, 167 (74.55%) were homemakers and 57 (25.44%) were office employees. All were married, Hindus by religion, had completed between eight and ten years of schooling and belonged to Lower Middle (III) category of Kuppuswamy's Socioeconomic Status Scale, updated for the year 2018. The mean age of the women (n=224) was 45.55 +/- 12.39 years (95% CI: 43.93 – 47.17 years). More than half (58.03%) were between 36 and 55 years old. (Fig. 1)

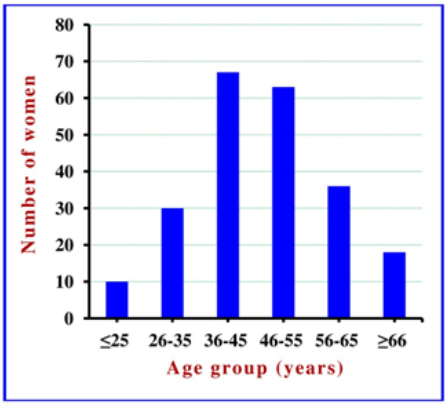

Fig. 1: Age distribution

Of the 224 women, 172 (76.79%) were asymptomatic and had attended the health camp for a general health check-up, indicating high level of health awareness. The others had known morbidities that included hypertension (10.71%), diabetes mellitus (4.04%), multiple co-morbidities (5.36%), hypothyroidism (2.23%), asthma (0.45%) and spondylosis (0.45%). 211 (94.2%) had normal ENT findings, while others were diagnosed with deviated nasal septum (3.13%), bilateral hearing loss (0.45%), leukoplakia (0.45%), rhinitis (0.45%) and white spot on tonsil (0.45%).

The mean systolic and diastolic BP were 119.51 +/- 17.67 mm Hg (95% CI: 117.20 - 121.82 mm Hg) and 76.70 +/- 10.19 mm Hg (95% CI: 75.36 - 78.03 mm Hg), respectively. The BP was in the normal range in 108 (48.21%) women, while the BP readings of the remaining women were suggestive of hypertension. A study [11] from north India found that 26% women were hypertensive and that the mean systolic and diastolic BP was 124.25+/-15.05 mm Hg and 83.45+/-9.49 mm Hg, respectively.

The haemoglobin level of nearly half of the women (49.55%) was more than 11 gm/dl. The mean haemoglobin level was 10.91 +/- 1.45 gm/dl (95% CI: 10.72 - 11.10 gm/dl). Only one woman (0.45%) had haemoglobin level less than 7 gm/dl. The median (10.9 gm/dl) haemoglobin level almost coincided with the mean (10.91 gm/dl), indicating symmetry of distribution of the observations. (Fig. 2) It is

estimated that 52% of Indian women aged 15-49 years are anaemic. [12] In 2007, the Government of India's multi-pronged "12 by 12 initiative", launched with the objective of ensuring that all Indian adolescents by the age of 12 years have 12 gm/dl haemoglobin by the year 2012, listed the main causes of anaemia in India as low dietary intake, poor availability of iron, chronic blood loss due to hookworm infestation, and malaria. [13]

The mean RBS level was 122.61 +/- 49.40 mg/dl (95% CI: 116.14 - 129.08 mg/dl). Only two women (0.89%) had RBS level of 78mg/dl or less, while 202 (90.18%) had normal RBS level (79-160 mg/dl). This finding is corroborated by the results of a Gujarat-based study which reported that 98.27% had normal RBS levels. [14] In this study, the median (110.2 mg/dl) and third quartile (121.35 mg/dl) of the RBS was lower than the mean RBS level (122.61 mg/dl), while the minimum RBS was 68 mg/dl. (Fig. 3) Those who had high RBS levels (8.93%) were referred for further investigations.

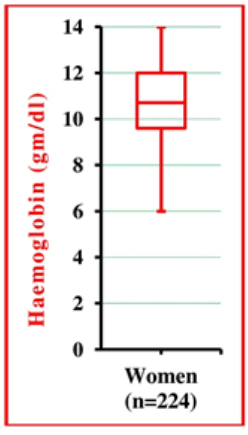

Fig. 2: Boxplot of haemoglobin levels

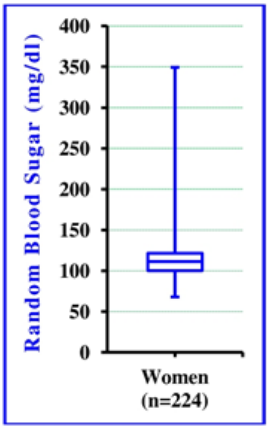

Fig. 3: Boxplot of random blood sugar levels

The results of the Pap smear (n=78) was as follows – normal (20), inflammatory smear (37), atropic smear (3), bacterial vaginosis (4), candidiasis (2), degenerative changes (1), atypia (5), and dysplasia (6). Routine urine examination, performed in all 224 women, revealed that only 3(1.34%) had findings suggestive of urinary tract infection.

CONCLUSION

More than three-fourths of the women who were asymptomatic attended the camp for a general health check-up, indicating adequate health awareness despite relatively low educational status. While the blood pressure, haemoglobin levels and random blood sugar levels were normal for most of the 224 women, a cause for concern was that only a quarter of the 78 women examined had normal Pap smear. There is a need for periodic follow-up tests for women with border-line and abnormal findings.

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