A cross-sectional study of Gynecological morbidities among married women (≥30 years) in Bagalkot city

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Abstract

Background: Women and child health is a growing concern all over the world especially in developing countries. Women in the reproductive age group constitute the most vulnerable group, and therefore positive health of this group is a must for overall growth and development of the country specially that of the developing countries. Gynecological morbidities, by definition, include conditions of the reproductive tract which are not associated with a particular pregnancy such as reproductive tract infections, cervical cell changes, prolapse, infertility, and related morbidities like urinary tract infections. Nearly half of the women above 50 years of age had some gynecological morbidity, whereas only one-fourth of them complained of symptoms. Hence this study was taken up to study the prevalence of gynaecological morbidities.

Objectives:

1. To study the prevalence of gynaecological morbidities among married women (>30 years) by pap smear examination and pelvic Ultrasound examination.
2. To study the prevalence of breast morbidities by clinical breast examination and Mammography.

Methods: After obtaining Institutional ethical clearance, the present study was undertaken in the Bagalkot City. A total of 1205 women participated in the present study. After obtaining informed consent from the participants, predesigned, prestructured proforma was used to obtain sociodemographic profile of the participants. Later, pap smear, breast examination, USG pelvis and Mammography was done. Later data was analyzed with SPSS software.

Results: In the present study, 71(5.9%) of them had malignant pap report and 715(59.3%) had benign pap report(includes inflammatory pap smear). About 28% of them had abnormal USG pelvis report that includes both uterine and ovarian abnormality. About14 (1.1%) of them gave the history of lump in the breast. . In the present study, 34.6% of them had BI-RADS II of Mammography report. Followed by 6.8% of them had BI-RADS III and 0.2% of them had BI-RADS IV. In the present study, 13.4% of them had Axillary Lymph node and 12.7% of them had Fibroadenoma.

Conclusion: Reproductive health issues follows a iceberg phenomenon. These conditions need to be addressed by screening programme. Pap smear examination and Mammography is widely accepted screening procedures for Carcinoma Cervix and Carcinoma Breast respectively. In the present study, we used ultrasound examination for early detection of ovarian and uterine abnormalities.

Key words: Gynecological morbidity, Cancer cervix, Breast cancer, reproductive tract infections

Introduction

There is no chance for the welfare of the world unless the condition of women is improved…

Bagalkot is one among the most backward districts of Karnataka. The back-waters of Upper Krishna Project (UKP) has caused great damage to the residential areas of Bagalkot district. UKP is the first biggest water hydel project in India and second biggest project in the Asian subcontinent; More than 200 villages have been submerged due to back waters. Due to this

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natural calamity day to day life including health care becomes an out of reach proposition for the common population especially the socially handicapped. [1] The high maternal mortality, infant mortality and other vital health indicators of the district substantiate this status.[2] In particular, women's reproductive health becomes the least priority for the people and is poorly met at the household level.

Women's and child health is a growing concern all over the world especially in developing countries.[2] Woman is the nucleus of a family and family is the nucleus of the community which makes a society and a country. Women in the reproductive age group constitute the most vulnerable group and therefore positive health of this group is a must for overall growth and development of the country specially that of the developing countries.

Maternal health care is one of the basic components of primary health care in the declaration of Alma Ata.[3] There is always concern about the health care of women during pregnancy and child birth and prevention of maternal mortality on priority. By contrast little attention has been given to the reproductive health of non-pregnant women. There is always a relative neglect of gynaecological care which fails to appreciate the magnitude of the problem in the community.[4]

The concepts of reproductive morbidity:

Gynecological morbidities, by definition, include conditions of the reproductive tract which are not associated with a particular pregnancy such as reproductive tract infections, cervical cell changes, prolapse, infertility, and related morbidities like urinary tract infections.[5]

The effective organization of services can be effectively made only after knowing the exact magnitude of the problem in a given population. Appreciating the magnitude of the problem i.e. the prevalence of the gynaecological disorders among women and their long lasting impact over the community, it warrants for an early action for effective control and prevention in general population. More emphasis is required on health education to prevent the health problems rather than providing curative and clinical base for detection and treatment. A systematically planned and implemented health education programme with a built in system of feedback for programme modification is essential to achieve the goals more objectively. This will help to reduce the increasing burden on existing curative services. Even though gynecological

enquiry and examination is a very sensitive matter for women in India, still it needs constant observation and mass screening is the cornerstone in the early detection and control of gynaecological problems in the community[6] Systematic and planned studies are needed to measure the extent of problem in the population. A multidisciplinary approach is required for the improvement in health status of women, particularly, reproductive age group. Health agencies and health services should be brought together as closely as possible.[4]

Female reproductive health particularly the gynaecological problems among women has received very little attention among health policy makers and programme planners. In one study its showed that 44.4 % of women had at least one gynecological morbidity which is within the lower range of the prevalence observed in many of the community-based studies on gynecological morbidities in India among women of all age groups, which ranged from43 to 92 %. Nearly half of the women above 50 years of age had some gynecological morbidity, whereas only one-fourth of them complained of symptoms. Similar findings were documented in the literature.[7]

Though many studies in different parts of India have been carried out, no study related to this, has been conducted in this region of Karnataka.

Keeping the above facts in mind and growing realization of public health importance of gynaecological disorders among women, this community oriented study was undertaken among married women in the Bagalkot.

Objectives

1. To study the prevalence of gynaecological morbidities among married women (>30 years) by pap smear examination and pelvic Ultrasound examination.

2. To study the prevalence of breast morbidities by clinical breast examination and Mammography.

Materials and Methods

Study design: A Cross sectional study

Subjects: The present study was undertaken in Bagalkot City. All married women who were aged more than 30 years were considered for screening procedure, and applying appropriate sampling techniques.

Inclusion Criteria: All Married women who were aged above 30 years.

Exclusion Criteria:

• Pregnant women

• Women already diagnosed with cervical cancer or breast cancer.

• Women who did not consent to participate in the study.

Sample size: Total sample size for the study was calculated using OpenEpi software. Total Population of Bagalkot: 1,12,068[8]. Prevalence of Carcinoma Breast: 25%. Absolute Precision: 2.5%. Design Effect:1

Sample size calculated for 95% confidence Interval is 1141 which is rounded off to 1200. Hence the Total sample size was **1200.**

Method of collection of data:

Total population: 1,12,00. Total number of houses: 12,400. Bagalkot city divided into 4 wards: Each ward contains 3100 houses. Old Bagalkot: 3100, Vidyagiri: 3100 Navanagar :3100 and Shed area: 3100. Each ward is divided into (100 houses). 30 sectors in each area, 100 houses in each sectors, 10 houses in each sector selected randomly for study.

Out of these, 10 houses/households are selected by systematic sampling. For selection of each household/house, first we calculated the sampling interval, and divided the total number of households by the sample size for each sector. After getting the sampling interval first house was selected randomly by currency note method and then sampling interval was added to the random number, this was continued till we got 10 households/houses from each sector, hence the total of 1200 sample size was achieved.

Before selecting the study subjects, camps were arranged with the co-operation of local organised women groups (Mahila Mandals). All women in the reproductive age group were called and health education was given by the project management group using various IEC materials, regarding the Reproductive health problems, Carcinoma cervix, Carcinoma breast, causes, various screening methods available for early detection and its advantages.

The households/houses already selected by the sampling procedure were visited for the preliminary data collection, and were asked to visit the Sri Hanagal Kumareshwara hospital for undergoing the following screening procedure.

1. Complete physical examination.

2. Per speculum and per vaginal examination with pap smear.

3. Ultrasonography.

4. Mammography.

Results

Table 1: Distribution of study subjects according to Age and Place of Residence.

Age	place		Total
	urban	rural	
<= 35	125	114	239
	52.3%	47.7%	100.0%
36 - 50	430	290	720
	59.7%	40.3%	100.0%
51 - 65	128	86	214
	59.8%	40.2%	100.0%
66 - 80	6	25	31
	19.4%	80.6%	100.0%
81+	1	0	1
	100.0%	.0%	100.0%
Total	690	515	1205
	57.3%	42.7%	100.0%

About 78% of the women were in the age group below 50 years. Maximum of 57% of them were from Urban area and the rest were from Rural area. (Table 1)

Table 2: Distribution of study subjects according to Religion

Religion	No.(%)
Hindu	1169(97%)
Muslim	36(3%)
Total	1205

In the Present study, 97% were Hindus and rest 3% were Muslims.(Table 2)

Table 3: Distribution of study subjects according to Socio-Economic Class. (According to Modified B G Prasad Classification).

Socio-Economic Class	No.(%)
I	299 (24.8%)
II	396 (32.9%)
III	296 (24.6%)
IV	172 (14.3%)
V	42 (3.5%)
Total	1205

Maximum of the study subjects belonged to Class II(33%). 24% each from class I and III. About 3.5% of them were from class V.

Table 4: Study subjects based on Bethesda classification of pap report

Pap report		Frequency	Percent
Valid	2a	419	34.8
	2b	690	57.3
	2c	11	.9
	2d	13	1.1
	3a	39	3.2
	3b	29	2.4
	3c	2	.2
	3d	1	.1
	Total	1204	99.9
Total		1205	100.0

In above table it is evident that, 57.3% had inflammatory pap smear report while 5.9% showed the malignant changes in the pap report. (Table 4).

In the Present study, 11.1% of Muslims had Pap smear report (3a-3d). Among them 50% (muslims) and 57.5% (Hindus) were having inflammatory smears(Table 5).

Table 7: Mammography Report

Mammography	Number	Percentage
BI-RADS I	703	58.4
BI-RADS II	417	34.6
BI-RADS III	83	6.8
BI-RADS IV	2	0.2

In the present study, 34.6% of them had BI-RADS II of Mammography Report. Followed by 6.8% of them had BI-RADS III and 0.2% of them had BI-RADS I.

Table:8 Breast lesions in Mammography

Benign Breast lesions	Number	Percentage
Axillary lymph node	162	13.44
Fibroadenoma	154	12.7
Fibrocystic Disease	19	1.57
Simple cyst	64	5.3
Bilateral ductal ectasia	4	0.3
Calcific spec	34	2.8
Intraductal Carcinoma	1	0.1
Intralobular Carcinoma	1	0.1
Total	439(1205)	100

Table 5: Distribution of the study subjects according to the Bethesda classification of Pap report and Religion.

Religion	Pap Report								
	2a	2b	2c	2d	3a	3b	3c	3d	Total
Hindu	406	672	11	12	37	27	2	1	1168
	34.8%	57.5%	.9%	1.0%	3.2%	2.3%	.2%	.1%	100.0%
Muslims	13	18	0	1	2	2	0	0	36
	36.1%	50.0%	.0%	2.8%	5.6%	5.6%	.0%	.0%	100.0%
Total	419	690	11	13	39	29	2	1	1204
	34.8%	57.3%	.9%	1.1%	3.2%	2.4%	.2%	.1%	100.0%
Chisquare=3.92	P=0.78								

Table 6: Ultrasonography report

USG Report	Frequency	Percent
normal	851	70.6
PID	75	6.2
Bulky uterus and fibriod	190	15.8
post hysterectomy status	16	1.3
ovarian cyst	51	4.2
polycystic ovaries	18	1.5
cystitis	4	.3
Total	1205	100.0

Among study subjects, 15.8% of them had Bulky uterus and Fibriod uterus. 1.5% of them had polycystic ovaries(Table 6).

In the present study, 13.4% of them had Axillary Lymph node and 12.7% of them had Fibroadenoma.

Discussion

Reproductive health is a state of complete physical, mental and social wellbeing; it is not merely the absence of disease or infirmity in all matters relating to the reproductive system and its functions and processes.[8]

Gynecological morbidity is structural and functional disorder of the reproductive tract (genital tract). Though gynecological morbidity is not related to pregnancy, delivery and puerperum, it may be related to sexual behavior.[9,10]

Gynecological morbidities have negative impact on women health related quality of life, in terms of

marital disharmony excluding them from social and religious life.[11] In our study 65.2% of women screened were having one or the other form of gynecological morbidity.

Women in this age group tend to ignore their health due to the multiple demands which she has to fulfill. These morbidities if ignored results in life threatening cancers in the later life. Incidence of cancer rises rapidly as the age progresses. Age along with genetic predisposition and ignored morbidities will ultimately lead to cancer.[12]

Cancer is one of the leading causes of adult deaths worldwide. Every year about 14 million new cancer cases are detected and 8 million people die of cancer.[13] But when it comes to distribution there is marked difference. In contrast to developed countries, cervical cancer is a public health problem in developing countries like India, so much so that India alone accounts for one-quarter of the worldwide burden of cervical cancers[13,14] It is the one of leading cause of cancer mortality, accounting for 17% of all cancer deaths among women aged between 30 and 69 years. It is estimated that cervical cancer will occur in approximately 1 in 53 Indian women during their lifetime compared with 1 in 100 women in more developed regions of the world.[14] The incidence of reproductive tract infections are more in rural areas due to poor hygienic conditions and so is the incidence of cervical cancer. In contrast the incidence of breast cancer is more among urban population.[15]

Pap smear can be used as an excellent screening tool which is cost effective. In the present study, 57.3% had inflammatory pap smear report while 5.9% showed the malignant changes in the pap report (Table 4. When observed among religions 11.1% of Muslims had Pap smear report (3a-3d)(Table 5). This high prevalence of malignancy among Muslims may be because of poor hygiene conditions.

Ultrasonography using the transabdominal and transvaginal routes has been employed most frequently, due to its accessibility and relatively low cost.[16] In our study, 15.8% of them had Bulky uterus and Fibriod uterus. 1.5% of them had polycystic ovaries. (Table 6) Although they are essentially benign, uterine fibroids are associated with significant morbidity to nearly 40% of women during their reproductive years and sometimes even after menopause.[16] Rarely fibroids can become cancerous (1 in 1000) cases.[17]

Early detection reduces deaths due to breast cancer. The US Preventive Services Task

Force analysis of 7 randomized trials of mammographic screening found that the point estimate of the reduction in mortality from screening mammography was 22% in women aged 50 years or older and 15% among women between 40 and 49 years,1with some individual trials showing far greater benefits in both age groups and with any specific age distinction arbitrary.[18]

Breast cancer has ranked number one cancer among Indian females with age adjusted rate as high as 25.8 per 100,000 women and mortality 12.7 per 100,000 women. Breast cancer is the major cause of morbidity and mortality among females ranking number one among females in Indian metropolitan cities like Delhi, Kolkatta, Pune and Thi'puram, Bangalore and Mumbai and in Northeast, whereas in rural areas such as Barshi it still hold a second position.[19]

In the Present study , In the present study, 34.6% of them had BI-RADS II of Mammography Report. Followed by 6.8% of them had BI-RADS III and 0.2% of them had BI-RADS IV(Table 7). Further 13.4% of them had Axillary Lymph node and 12.7% of them had Fibroadenoma.(Table 8).

Conclusions

Reproductive health issues follows a iceberg phenomenon. These conditions need to be addressed by screening programme. Pap smear examination and Mammography is widely accepted screening procedures for Carcinoma Cervix and Carcinoma Breast respectively. In the present study, we used ultrasound examination for early detection of uterine abnormalities. In countries like India with predominant rural population is having low socio-economic status, marriage at an early age and poor medical facility. It is a major challenge to formulate a screening program that is easily available, within existing resources, to a large section of society. Early detection of cancer cervix by prompt screening camps helps in identification of precancerous lesions of cervix at the earliest and help in early treatment to have a good prognosis.

A number of socioeconomic & demographic factors influence the prevalence of gynecological morbidities. Clearly, there is a need to create awareness about reproductive health & provide appropriate education about reproductive and sexual health and a need for the screening programme.

Government policies should be made to screen for reproductive health problems, so the early detection of diseases can be done. Early detection will alter the

natural history of the disease since many conditions are treatable when it is detected at a very early stage.

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