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A RETEROSPECTIVE OBSERVATIONAL AND PROSPECTIVE KAP STUDY ON PREVENTABLE CANCERS OF BREAST AND CERVICAL CANCER AMONG WOMEN IN SCCL MAIN HOSPITAL AT BHADRADRI KOTHAGUDEM DISTRICT, INDIA

Dr. Kappala Soujanya*, Dr. Koduru Harsha, Rajani Gunnam and Dr. G. Nagurjuna Reddy

Doctor of Pharmacy, KLR Pharmacy College.

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***Corresponding Author**
Dr. Kappala Soujanya
Doctor of Pharmacy, KLR Pharmacy College.

ABSTRACT

Aims and objectives: To initiate a study on breast and cervical cancer by using data from camp conducted in 2016 on International women's day by SCCL main hospital. The objectives of this study were to know the incidence of breast cancer and cervical cancer among the female employees and female dependants of SCCL and to create awareness among the high risk group of breast and cervical cancer by using KAP questionnaires. **Methodology:** This study was conducted in 2 phases, namely Phase – I: Retrospective (data was collected from the camp to assess the incidence) and Phase- II Prospective (KAP study was onducted by contacting the women through telephone). **Results:** Out of 570 women, 22 (3.8%) women developed breast cancer and 1(0.17%) women had cervical cancer. In the KAP study, knowledge score was 47.5%, attitude score was 40.47% and practice score was 29.52%. **Conclusion**: From the present study there is need of knowledge, awareness and practice on the most mortality diseases i.e. breast cancer and cervical cancer that may be helpful to reduce the mortality rate when they practice regularly.

KEYWORDS: KAP, Breast Cancer, Cervical Cancer, Retrospective Study, Prospective Study.

INTRODUCTION

Breast cancer is a common cause of cancer related deaths in most developing countries.[1] Cervical cancer is one of the leading causes of death in women and about 72000 deaths are

reported every year.[2] Recent global estimates indicate cervical cancer is the third common form of cancer diagnosed in women and the fourth leading cause of death due to cancer in women.[2] Early screening has shown to effectively reduce the incidence of malignancy. For screening methods to be fully utilized, women need to be aware of various methods available. Thus, the knowledge, attitude and practice regarding breast and cervical cancer have become most essential to prevent disease.

AIM

To initiate a study on breast and cervical cancer by using data from camp conducted in 2016 on International women's day by SCCL main hospital.

OBJECTIVE

- To know the incidence of breast cancer and cervical cancer among the female employees and female dependants of SCCL
- To create awareness among the high-risk group of breast and cervical cancer by using KAP questionnaires.

METHODOLOGY

This study was conducted in Singareni Collieries Company Limited, Main hospital, Kothagudem, Bhadradri district.

This study was conducted in two phases, one is retrospective, and the other is prospective.

Phase I - Retrospective study

- During this phase, the data was collected in suitably designed data collection form.
- After collecting the data, the incidence of breast and cervical cancer was determined.

Phase II – Prospective study

- During this phase, KAP questionnaires were prepared.
- After preparing the questionnaires, we contacted the people of high-risk group (like positive family history of breast or cervical cancer, Nulliparous, early menarche, a greater number of births) through telephone.
- Assessed the knowledge of high-risk group regarding breast and cervical cancer and created awareness among them to undergo frequent monitoring programs for early detection of breast and cervical cancers.

Inclusion criteria

- Women of age ≥ 40 years
- Women with age < 40 years, who are having any symptoms of breast cancer and cervical cancer

Exclusion criteria

- Male patients
- Women of age < 40 years without any symptoms or risk factors of cervical or breast cancer

RESULTS

Retrospective study: A total of 570 cases were collected reterospectively from the camp which was held in March 2016 during international womens day at SCCL main hospital. From those 570 women, we identified 171 women who were under the risk of develpoing breast cancer and cervical cancer (i.e., positive family history, nulliparous, early menarche, early pregnancy etc).

Table No. 1: Distribution of women based on marital status.

S. No.	Age group (Years)	No. of women (n)	Married	Unmarried	Widow
1	31-35	10	10	0	0
2	36-40	27	27	0	0
3	41-45	51	48	1	2
4	46-50	39	37	2	0
5	51-55	32	30	0	2
6	56-60	12	10	1	1
Total		171	162	4	5
Percentage		100%	94.7%	2.33%	2.92%
Mean ± SD		28.5 ± 15.78	27 ± 15.019	0.66 ± 0.81	0.83 ± 0.98

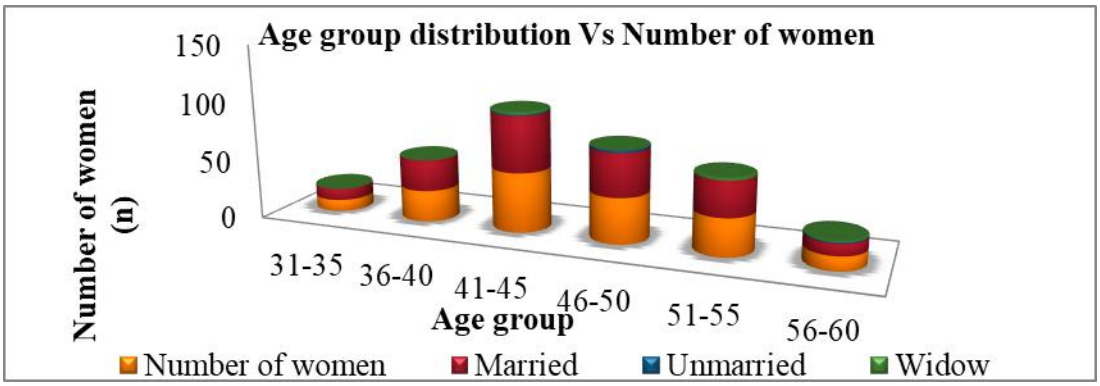

Figure No. 1: Bar diagram of women based on marital status.

As shown in the figure No. 1, out of 171 women, 10 women are there in the age group of 31-35 years and all of them were married. In the age group of 36-40 years, there were 27 women and all of them were married. In the age group of 41-45 years, there were 51 women and among them 48 were married, 1 unmarried and 2 were widows. In the age group of 46-50 years, there were 39 women and among them 37 were married, 2 were unmarried. In the age group of 51-55 years, there were 32 women and among them 30 women were married, 2 were widows. In the age group of 56-60 years, there were 12 women and among them 10 were married, 1 was unmarried and 1 was widow. The mean and standard deviation (SD) value for total number of women was 28.5 ± 15.78. The percentage of women who were married was 94.7% and the mean and SD value was 27 ± 15.019, women without marriage were 2.33% with mean and SD value of 0.66 ± 0.81 and percentage of widows was 2.92% with mean and SD value of 0.83 ± 0.98.

Table No. 2: Distribution of women based on their Family History.

S. No.	Age group	No. of women with family history	No. of women without family history
1	31-35	1	9
2	36-40	3	24
3	41-45	3	48
4	46-50	2	37
5	51-55	9	23
6	56-60	4	8
Total		22	149
Percentage		12.86%	87.13%
Mean ± SD		3.66 ± 2.80	24.83 ± 15.63

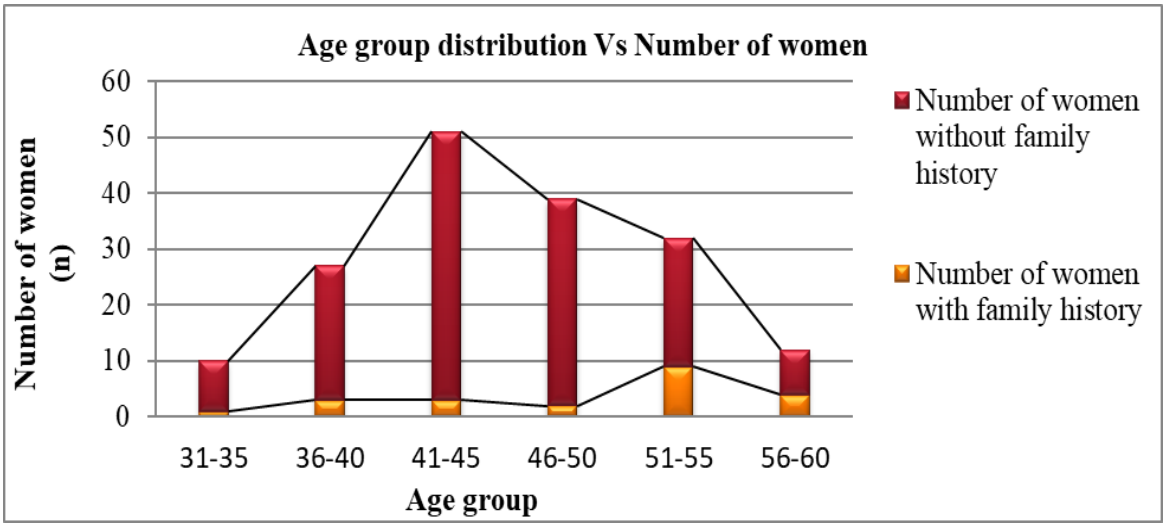

Figure No. 2: Bar diagram of women based on their Family History.

As shown in the figure No. 1, Out of 171 women, 22 women were having positive family history of cancer with 12.86%, mean and standard deviation was 3.66 ± 2.80 and remaining 149 was without family history of 87.13% with mean and standard deviation of 24.83 ± 15.63. The P value was 0.0085 and was significant. In the age group of 31-35 years, 1 woman was having positive family history of cancer and 9 women were without family history of cancer. In the age group of 36-40 years, 3 women with positive family history and 24 were without family history. In the age group of 41-45years, 3 women with positive family history and 48 were without family history. In the age group of 46-50years, 2 women with positive family history and 37 without family history. In the age group of 51-55years, 9 women with positive family history and 23 were without family history. In the age group of 56-60 years, 4 women with positive family history and 8 were without family history.

Table No. 3: Distribution of women based on Parity.

S. No.	No. of children	No. of women (n)	Percentage
1	0(Nulliparous)	4	2.339%
2	1	18	10.52%
3	2	99	57.894%
4	3	38	22.222%
5	4	9	5.263%
6	5	2	1.129%
7	6	1	0.584%
Total		171	
Mean ± SD		24.42 ± 35.34	

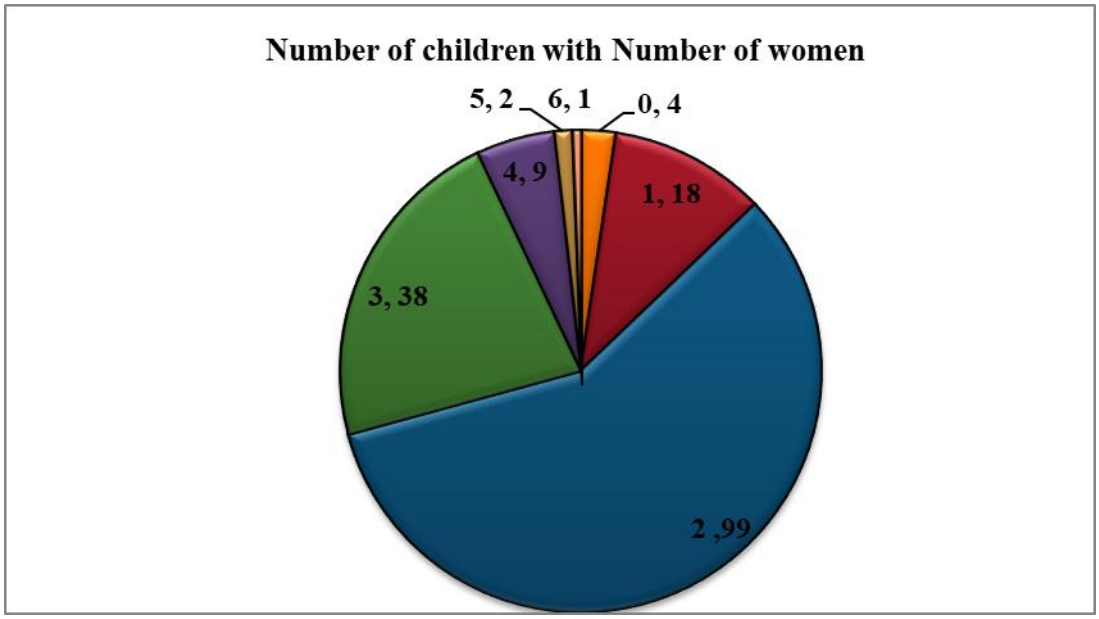

Figure No. 3: Pie diagram of number of children with number of women.

As shown in the figure No.3, out of 171 women, 4 women were nulliparous with percentage of 2.339%, 18 women had 1 child with percentage of 10.52%, 99 women had 2 children with percentage of 57.894%, 38 women had 3 children with percentage of 22.222%, 9 women had 4 children with percentage of 5.263%, 2 women had 5 children with percentage of 1.129%, 1 women had 6 children with percentage of 0.584%. The mean and standard deviation of number of women was 24.42 ± 35.34.

Table No. 4: Distribution of women based on Mammogram.

S. No	Age group	Mammogram					
		No mass/lesion/ calcification	Dense fibro glandular parenchyma	Duct Ectasia	Well defined oval density	Hypo echoic lesion	Benign calcification
1	31-35	5	0	0	0	1	0
2	36-40	13	1	1	1	1	1
3	41-45	28	0	1	3	1	4
4	46-50	29	1	0	1	2	1
5	51-55	20	0	0	2	0	2
6	56-60	10	0	0	0	0	0
Total		105	2	2	7	5	8
Percentage		61.403%	1.16%	1.16%	4.09%	2.923%	4.678%
Mean ± SD		17.5 ± 9.81	0.33 ± 0.51	0.33 ± 0.51	1.16 ± 1.169	0.83 ± 0.75	1.33 ± 1.50

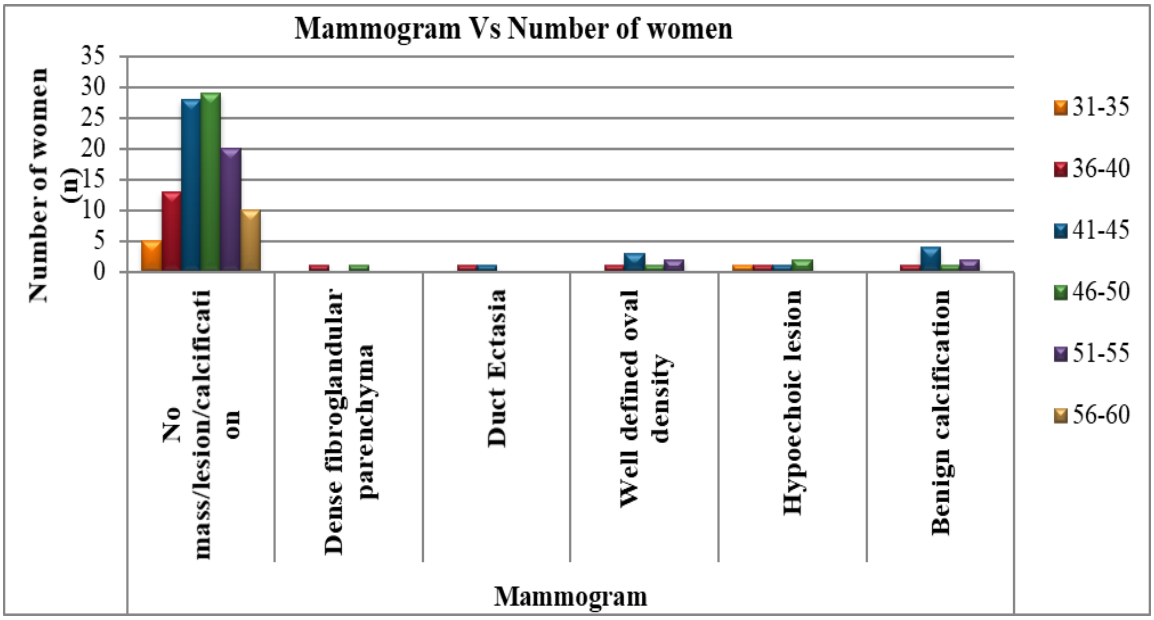

Figure No. 4: Bar diagram on distribution of women based on their mammogram.

As shown in the figure No.4, out of 171 women, 105 women have no mass/lesion/calcification in mammogram report with percentage of 61.403%, mean and SD was 17.5 ± 9.81. 2 women have dense fibro glandular parenchyma with percentage of 1.16%,

mean & SD was 0.33 ± 0.51. 2 women with duct ectasia with percentage of 1.16%, mean and SD was 0.33 ± 0.51. 7 women with well defined oval density of 4.09%, mean and SD was 1.16 ± 1.169 and 5 women with hypoechoic lesion of 2.923%, mean and SD was 0.83 ± 0.75. 8 women have benign calcification with percentage of 4.678%, mean and SD was 1.33 ± 1.50. The p value in one-way ANNOVA method was ≤ 0.0001 and values were significant.

Table No. 5: Distribution of women based on Cytology and colposcopy.

S. No	Age Group	Cytology			Colposcopy
		Inflammatory smear	Normal	Slide not taken	
1	31-35	4	3	3	0
2	36-40	11	5	11	0
3	41-45	15	19	17	1
4	46-50	12	17	10	5
5	51-55	6	13	13	3
6	56-60	2	6	4	1
Total		50	63	58	10
Percentage		29.239%	36.842%	33.918%	5.847%
Mean± SD		8.3 ± 5.08	10.5 ± 6.74	9.66 ± 5.35	1.66 ± 1.96

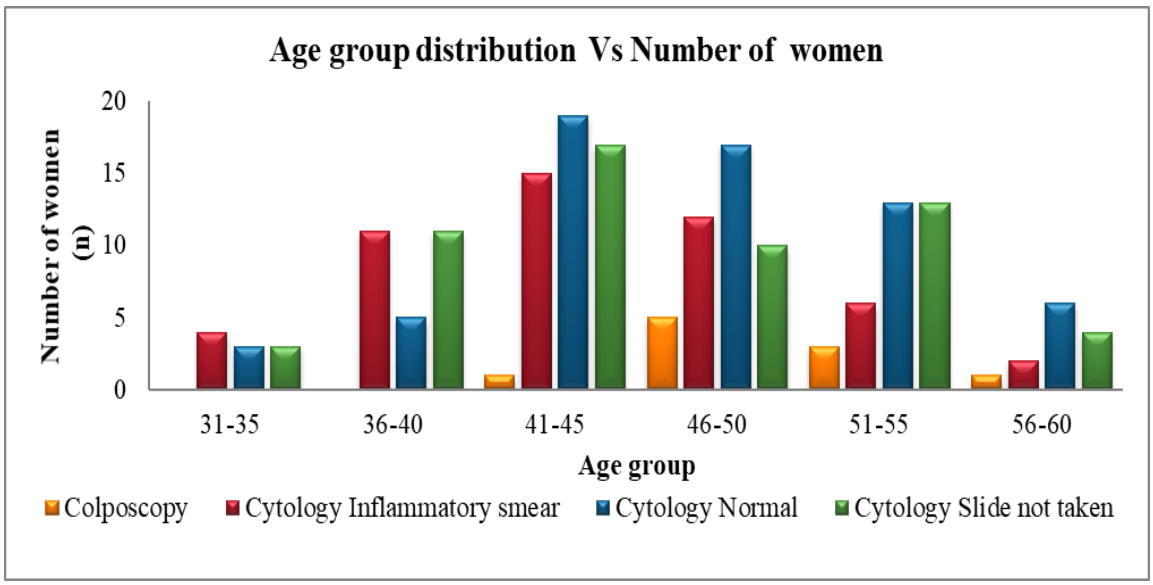

Figure No. 5: Bar diagram of women based on their cytology and colposcopy.

As shown in the figure No.5, out of 171 women, in cytology, 63 reports were normal with percentage of 36.842%, 50 were inflammatory smear of 29.239%, and 58 slides were not taken of 29.239%. 10 women have abnormal colposcopy reports with 5.847%. The P value was 0.0281 and values were significantly different.

Prospective KAP study Results

Table No. 6: Knowledge Attitude Practice.

KAP	Yes	No	Not willing to answer	Aggregate percentage	
				Yes	No
KNOWLEDGE					
Q1	65	3	2	47.50%	49.28%
Q2 Pap smear	26	42	2		
Q2 Colposcopy	8	60	2		
Q2 Mammogram	58	10	2		
Q2 Ultrasonogram	11	57	2		
Q3	33	35	2		
ATTITUDE					
Q1	18	50	2	40.47%	56.66%
Q2	23	45	2		
Q3	44	24	2		
PRACTICE					
Q1	26	42	2	29.52%	67.62%
Q2	17	51	2		
Q3	19	49	2		
Total percent	55.23%	41.90%	2.87%		

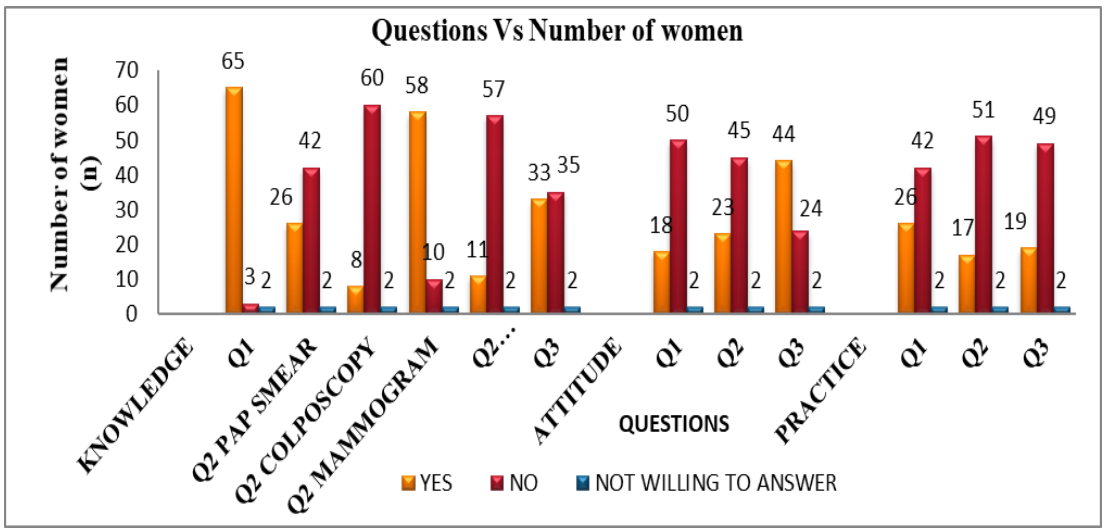

Figure No. 6: Bar diagram of women based on Knowledge, attitude and practice.

As shown in the figure No.6, out of 70 women, 68 women have answered for the questions and 2 were not willing to answer.

Knowledge

Knowledge was assessed by using 3 questions regarding breast cancer and cervical cancer and the knowledge score was **47.50%** and remaining **49.28%** was without knowledge. The p value for knowledge in one way ANNOVA method was 0.0164 and values were significant.

Attitude

It was assessed by 3 questions. Individuals have positive attitude with **40.47%** and **56.66%** individuals with negative attitude. The p value for attitude in one-way ANNOVA method was 0.0163 and values were significant.

Practice

It was assessed by looking on the respondent's screening activity with 3 questions. **29.52%** of women have a good practice and **67.62%** of women have irregular practice. The p value for practice in one-way ANNOVA method was ≤ 0.0001 and values were significant.

The aggregate percentage in KAP who answered to questions with YES was **55.23%** and with NO was **41.90%** and not willing to answer was **2.87%.**

DISCUSSION

570 women were screened by the gynecologist. From those 570 women we identified 171 women who were under the risk of developing breast cancer and cervical cancer (i.e., positive family hisotry, nulliparous, early menarche, early pregnancy). From 171 women 22 individuals have family history, in the breast examination, 65 women have pain in their breast, 9 women have discharge from breast, 2 women have mass, 2 women have undergone surgery, and 1 woman have undergone biopsy. In the clinical observation of breast 45 women has abnormality in right breast and 55 women have abnormality in thier left breast and in PS and PV findings 21 women have erosion, 8 women have bleeding on touch, 19 women have hypertrophied, and 35 women rejected to undergo findings of cervix. Out of 171 women, 129 women have undergone mammography, in those 129 reports 105 women were with no mass/lesion/calcification and 24 women had abnormality in mammogram, 33 women have undergone ultrasound of breast, 12 women have undergone ultrasound of abdomen, and 10 women undergone colposcopy.

Out of 570 individuals, 22 women developed breast cancer and incidence of breast cancer was found to be **3.8%**. Those 22 women were diagnosed as follows 2 women had dense fibro glandular parenchyma 1.16%, 2 women with duct ectasia of **1.16%,** 7 women had well defined oval density **4.09%,** 5 women had hypo echoic lesion with **2.923% and** 8 women had benign calcification **4.678%.**

Cytology was done in 171 women in which 50 women had inflammatory smear with 29.239% and 1 woman developed cervical cancer and incidence of cervical cancer was about **0.17%**. Results of our study were similar to another study conducted in rural area of Himachal Pradesh, India (Ashok Verma et.al, 2016).[3]

In the KAP study we have assessed knowledge by using 3 questions regarding breast cancer and cervical cancer and the knowledge score was **47.50%** and remaining **49.28%** was without knowledge.

Attitude was assessed by 3 questions. **40.47%** individuals have positive attitude and **56.66%** individuals have negative attitude. Practice was assessed by looking on the respondent's screening activity with 3 questions. **29.52%** have a good practice and **67.62%** women have irregular practice. KAP results were similar to another study conducted in Nigeria (SO Azubuike et.al. 2013).[4]

CONCLUSION

After KAP study **29** women were selected for reexamination with medical officer based on their complaints regarding breast and cervix cancer. The practice score of women was low, appropriate programs has to be conducted to increase the score. From the present study there is need of knowledge; awareness and practice on the most mortality diseases i.e. breast cancer and cervical cancer that may be helpful to reduce the mortality rate when they practiced regularly.

Conflict of Interest

The Authors doesn't have any conflict of interest.

ACKNOWLEDGEMENTS

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REFERENCES

1. Developing a breast cancer screening program in Nigeria: Evaluating current practices, perceptions and possible barriers. Olalekan Olasehinde et.al. American society of clinical oncology 2017.

2. A study on the prevalence and KAP regarding cervical cancer among women attending a tertiary care hospital in Perambalur. Rahul Hanumant Dandekar et.al. International journal of preventive medicine research, 2015; I-3: 71-78.
3. A study on cervical cancer screening in symptomatic women using Pap smear in a tertiary care hospital in rural area of Himachal Pradesh, India. Middle East Fertility Society Journal, 2017; 22: 39–42.
4. Knowledge, attitude and practices of women towards breast cancer in Benin city, Nigeria. SO Azubuike et.al. Ann Med Health Sci Res., 2013 Apr-jun; 3(2): 155-160.

Annexures

Questionaries for Prospective Study

KAP QUESTIONNARIES

KNOWLEDGE

1. Do you know the tests done by the gynecologist during the camp?
   Yes ☐ No ☐
2. What are the tests done to you at the camp?
   - Pap smear Yes ☐ ☐
   - Colposcopy Yes ☐ ☐
   - Mammography Yes ☐ ☐
   - Ultrasound Yes ☐ ☐
3. Do you know the results of the tests done to you?
   Yes ☐ No ☐

ATTITUDE:

1. Have you received any information from the singareni main hospital regarding your health?
   Yes ☐ No ☐
2. Did you approach the gynecologist regarding the results of tests?
   Yes ☐ No ☐
3. Were the tests beneficial for your health?
   Yes ☐ No ☐

PRACTICE:

1. Did you undergo further medical checkup after diagnosis?
   Yes ☐ No ☐
2. Are there any abnormal findings observed?
   Yes ☐ No ☐
3. Did you undergo any medical care /treatment?
   Yes ☐ No ☐