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## Original Research Article

# Preventive gynaecology: awareness, attitude and practices of gynecologists

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### ABSTRACT

**Background:** Gynecologists are aware of screening tests of all gynecological malignancies. However, attitude and practices do not match with this. Present study was conducted in 214 gynecologists to evaluate awareness, attitude and practices of preventive gynecology.

**Methods:** A survey was conducted among 214 gynecologists of Nagpur, using a questionnaire. This evaluated implementation of screening and preventive measures used by them for self-protection as well as for the women seeking their services. Their attitude regarding HPV vaccine as a preventive measure was also noted.

**Results:** In present study, 160 (74.76%) gynecologists routinely advice pap smear to the patients, 54 (25.23%) gynecologists advice pap smear to the patients only if it is indicated. 102 (47.66%) gynecologists and spouses have got their own pap smear done. 192 (89.71%) were doing their self breast examination regularly and 66 (30.84%) had done their mammography. 168 (78.50%) had their ultrasound done and 98 (45.79%) had their P/V done. 132 (61.68%) are advising HPV vaccination to the patients routinely and 48 (22.42%) gynecologists had given HPV vaccination to their daughters.

**Conclusions:** Proper and effective utilization of available facilities would depend on creating better understanding and change in their outlook. Stepping up and strengthening of preventive health care services is essential.

**Keywords:** Cervical cancer, HPV vaccine, Mammography, Pap smear

### INTRODUCTION

In the last decades, papilloma and herpes viruses got more importance in the development of epithelial dysplasia, neoplasia and cervical cancer. Cervical cancer has the second place in mortality from gynecology diseases. It occurs with the incidence of 350,000 new cases diagnosed each year.<sup>1</sup> Diagnosis is made by general, gynecologic, family history, clinical examination

including general, gynecological speculum examination, bimanual and rectal examination, by taking the smear by Papanicolaou method and histological examination after biopsy. Papanicolaou test is the standard test for cervical cancer screening.

Results of several studies have shown that this cytological test reduces the incidence of cervical cancer.<sup>1</sup>

Primary prevention involves regular gynecological examinations and screening.<sup>1</sup>

Primary prevention includes introduction of the primary and secondary measures for disease prevention; early detection of the diseases and its treatment. This reduces the numbers of cases in the advanced stages; significant improvement of gynecological health and reduction of costs of the treatment of advanced stages of disease.<sup>2</sup>

Gynecological cancer screening incorporates inspection, palpation, education, screening tests, and evaluation. It encompasses assessment of the vulva, vagina, cervix, uterus, ovaries, and recto-vaginal area.<sup>2</sup>

Reducing the incidence of gynecological cancer not only requires improving treatment, but also incorporating cancer prevention and detection strategies into clinical practice. By reviewing cancers of vulva, cervix, endometrial and ovary, their associated risk factors, means of prevention and early detection, and signs and symptoms, it helps patients to understand the potential risks and the detection methods.<sup>3</sup>

These prevention and early detection efforts succeed best when patients are well informed and have a relationship with their doctors who follow screening and detection recommendations appropriate in their own lives.<sup>3</sup>

Carcinoma breast and carcinoma cervix are leading causes for cancer deaths in India. However, these get detected only in late stages. Preventive measures and early detection of disease will decrease the burden of these cancers.<sup>4</sup>

HPV vaccination was introduced for primary prevention of carcinoma cervix after the attribution of High risk HPV as the causative agent. Screening for premalignant lesions using Pap smear and HPV DNA are now recommended as methods for secondary prevention of carcinoma cervix.<sup>4</sup>

Vaccinating girls between 9 and 12 years may offer an option to decrease this burden. The use of HPV Vaccine has been approved by the Drug Controller of India.<sup>4</sup>

Breast and cervical cancer are the most common causes of cancer mortality among women all over world, but actually they are largely preventable diseases. Doctors in developing countries regularly see women with advanced, incurable cancers. Health of a rural Indian women and her access to health facility is compromised because of socio-cultural, economical, and environmental factors.<sup>5</sup>

The World Health Organization (WHO) recommends routine screening for cervical cancer. WHO Global Monitoring Framework suggests that every nation monitors cervical cancer screening.<sup>6</sup>

Barrier and spermicidal contraceptives decrease the risk of cervical cancer by 50%. Combined oral contraceptives prevent both endometrial and epithelial ovarian cancers. The risk of endometrial cancer in former oral contraceptive users is reduced by about 50% and that of ovarian cancer by about 30% to 60%. Weight control gives strong protection against endometrial cancer. Breast-feeding and tubal sterilization also appear to protect against ovarian cancer.<sup>7</sup>

*Objectives of present study was to evaluate awareness, attitude and practices of preventive gynecology in gynaecologists.*

## **METHODS**

A survey was conducted among 214 gynecologists of various cities attending MSR conference in Nagpur in November 2017, using a questionnaire.

This was a cross sectional study conducted. Selection of gynecologists and their spouses was done randomly.

### ***Inclusion criteria***

Gynecologists and their spouses above 30 years of age were included.

### ***Exclusion criteria***

Gynecologists and their spouses below 30 years of age were excluded as very young gynecologists don't think of investigating themselves.

This evaluated implementation of screening and preventive measures used by them for self-protection as well as for the women seeking their services. This was regarding cancer cervix, ovarian cancer and breast cancer. Their attitude regarding HPV vaccine as a preventive measure was also noted. Their practice about HPV vaccination was judged by asking whether the gynecologists have given HPV vaccination to their daughters between 9-13 years or not. Data was collected and analyzed. Statistics was done in percentages.

### ***Questionnaire***

1. Name
2. Age
3. Advice for pap smear to the patients was given routinely or only if it was indicated
  - Own pap smear got done or not
  - Own Ultrasound got done or not
  - Own P/V got done or not
  - Own mammography got done or not
4. Self breast examination doing regularly or not
5. Advice HPV vaccination to the patients
6. HPV vaccination given to daughter or not
7. Reasons for not giving HPV vaccination like-

- Daughter is less than 9 years of age (Not eligible)
- Not thought of
- Costly
- Not sure of its advantage

**RESULTS**

In present study, 86 (40.18%) gynecologists and spouses of male gynecologists were between 41-50 years, 54 (25.23%) gynecologists and spouses of male gynecologists were between 31-40 years, 38 (17.75%) gynecologists and spouses of male gynecologists were >60 years, 36 (16.82%) gynecologists and spouses of male gynecologists were between 51-60 years. Gynecologists and spouses of male gynecologists of <30 years were excluded.

**Table 1: Age distribution.**

Age distribution	No. of gynecologists and spouses	Percentage
< 30 years	0	0
31-40 years	54	25.23
41-50 years	86	40.18
51- 60 years	36	16.82
>60 years	38	17.75
Total	214	100

In present study, out of 214, 200 (93.45%) were female gynecologists while 14 (6.54%) were male gynecologists.

**Table 2: Sex distribution.**

Sex distribution	No. of gynecologists and spouses	Percentage
Female gynecologists	200	93.45
Male gynecologists	14	6.54

**Table 3: Awareness of cervical cancer.**

Awareness of cervical cancer	No. of gynecologists and spouses	Percentage
Pap smear advised routinely to patients	160	74.76
Pap smear advised to patients only if indicated	54	25.23
Self pap smear got done	102	47.66

In present study, 160 (74.76%) gynecologists routinely advice pap smear to the patients, 54 (25.23%) gynecologists advice pap smear to the patients only if it is indicated. 102 (47.66%) gynecologists and spouses have got their own pap smear done.

**Table 4: Awareness of breast cancer.**

Awareness of breast cancer	No. of gynecologists and spouses	Percentage
Self breast examination	192	89.71
Mammography	66	30.84

In present study, out of 214 gynecologists and spouses, 192 (89.71%) were doing their self breast examination regularly and 66 (30.84%) had done their mammography.

**Table 5: Awareness of ovarian cancer.**

Awareness of ovarian cancer	No. of gynecologists and spouses	Percentage
Own p/v got done	98	45.79
Ultrasonography	168	78.50

In present study, out of 214 gynecologists and spouses, 168 (78.50%) had their ultrasound done and 98 (45.79%) had their P/V done.

**Table 6: Awareness of HPV vaccination.**

HPV vaccination	No. of gynecologists and spouses	Percentage
HPV vaccination advised routinely to patients	132	61.68
HPV vaccination given to daughters	48	22.42

In present study, out of 214 gynecologists, 132 (61.68%) are advising HPV vaccination to the patients routinely and 48 (22.42%) gynecologists had given HPV vaccination to their daughters.

**Table 7: Reasons for not giving HPV vaccination.**

Reasons for not giving HPV vaccination	No. of gynecologists and spouses	Percentage
Not applicable	120	56.07
Not thought of	20	9.345
Uncertain of advantage	20	9.345
Costly	3	1.401
Not available	3	1.401
Total	166	100

In present study, in 120 (56.07%) gynecologists, HPV vaccination was not applicable as either they were unmarried, or their daughters were less than 10 years age or they were not having daughters. 20 (9.34%) gynecologists did not think of giving HPV vaccination, 20 (9.34%) were uncertain of the advantage, 3 (1.401%) gynecologists felt that it was costly and 3 (1.401%)

gynecologists said that it was not available as it was rural area.

## DISCUSSION

### *Age distribution*

In present study, 86 (40.18%) gynecologists and spouses of male gynecologists were between 41-50 years, 54 (25.23%) gynecologists and spouses of male gynecologists were between 31-40 years, 38 (17.75%) gynecologists and spouses of male gynecologists were >60 years, 36 (16.82%) gynecologists and spouses of male gynecologists were between 51-60 years. Gynecologists and spouses of male gynecologists of <30 years were excluded.

### *Sex distribution*

In present study, out of 214 gynecologists, 200 (93.45%) were female gynecologists while 14 (6.54%) were male gynecologists.

### *Awareness of cervical cancer and HPV vaccination*

In present study, 160 (74.76%) gynecologists routinely advice pap smear to the patients, 54 (25.23%) gynecologists advice pap smear to the patients only if it is indicated. 102 (47.66%) gynecologists have got their own pap smear done.

In present study, out of 214 gynecologists, 132 are advising HPV vaccination to the patients routinely and 48 (22.42%) gynecologists had given HPV vaccination to their daughters.

Izetbegovic S et al reported that HPV related cancers are preventable by vaccination. HPV vaccine decreases the incidence of premalignant lesions by 70 to 90%.<sup>1</sup>

Radha K et al reported that Pap smear was done by only 84 (32.8%) out of 256 gynecologists or their spouses. Routine Pap smear was recommended by 60.5% of private practitioners and 84% of government practitioners.<sup>4</sup>

Radha K et al reported that counseling for HPV vaccine was offered to young women by 37.8% of gynecologists only. Use of HPV vaccine for their daughters was also quite less (24.1%).<sup>4</sup>

Tripathi N et al reported that awareness about symptoms, possibility of early detection, available tests, cure of disease was low. Main barrier for screening was, 'don't know' answer by 83.99% women for cancer cervix, 84.93% for cancer breast, and 67.26% for oral cancer. Awareness was significantly associated with age ( $\chi(2) = 17.77$ ,  $P = 0.001$ ), education ( $\chi(2) = 34.62$ ,  $P = 0.000$ ), and income ( $\chi(2) = 16.72$ ,  $P = 0.002$ ); while attitude with

age ( $\chi(2) = 16.27$ ,  $P = 0.012$ ) and education ( $\chi(2) = 25.16$ ,  $P = 0.003$ ). Practice was significantly associated with age ( $\chi(2) = 11.28$ ,  $P = 0.023$ ), education ( $\chi(2) = 32.27$ ,  $P = 0.003$ ), and occupation ( $\chi(2) = 10.69$ ,  $P = 0.03$ ). Awareness, attitude, and practice of women having history of cancer in family or relative was significantly high than women without history.<sup>5</sup>

Wang B et al reported that overall, 21% of 51,989 women had a Pap test. The highest proportion was reported among women aged 30-39 years (30.1%, 95% confidence interval, 26.8%-33.4%). In all geographic regions, women in rural areas were less likely than women in urban areas to report having had a Pap test. Factors associated with ever having a test were being aged 30-49 years, higher education, being married, and having urban health insurance.<sup>6</sup>

The Advisory Committee on Immunization Practices 2011;2012 recommends routine vaccination against the HPV virus in females and males 11-12 years of age.<sup>8</sup>

CDC in 2011 found that only 35% of females between 13-17 years had received the recommended three doses of HPV vaccine.<sup>9</sup>

Auersperg N et al reported that 83.0% of women reported guideline-consistent Pap testing within the past 3 years than the Healthy People 2020 target of 93.0%. Pap Testing rates are significantly lower among Asians (75.4%), and a small downward trend was observed in the number of women who reported receiving guideline-consistent Pap testing over the last decade.<sup>10</sup>

### *Awareness of breast cancer*

In present study, out of 214 gynecologists and spouses, 192 (89.71%) were doing their self breast examination regularly and 66 (30.84%) had done their mammography.

### *Awareness of ovarian and endometrial cancer*

In present study, out of 214 gynecologists and spouses, 168 (78.50%) had their ultrasound done and 98 (45.79%) had their P/V done.

Claes E et al found that ovarian and uterine cancers are linked to genetic syndromes; mutations in the BRCA tumor suppressor gene increase risk for ovarian cancer. Mutations associated with Lynch syndrome increase risk for both ovarian and uterine cancers.<sup>11</sup>

Finlay E et al found that genetic testing is available for BRCA mutations; but several studies have shown low testing rates, even when a mutation has been previously found within the family.<sup>12</sup>

A study in Pennsylvania by Hadley DW reported that although offered free genetic counseling and testing, only



57% of individuals with a positive BRCA1/2 family mutation status participated in testing.<sup>13</sup>

Sasieni P et al reported that 51% underwent genetic testing for Lynch syndrome who had positive family mutation status.<sup>14</sup>

In present study, in 120 (56.07%) gynecologists, HPV vaccination was not applicable as either they were unmarried or their daughters were less than 10 years age or they were not having daughters. 20 (9.34%) gynecologists did not think of giving HPV vaccination, 20 (9.34%) were uncertain of the advantage, 3 (1.401%) gynecologists felt that it was costly and 3 (1.401%) gynecologists said that it was not available as it was rural area.

## CONCLUSION

Gynecologists are well aware that HPV vaccination and regular cervical screening are the most effective ways of preventing cervical cancer. However, this is not reflected in their practice. Present study found that female gynecologists and the wives of male gynecologists tend to ignore the need to undergo screening procedures for early detection of malignancy. Their responses indicate that their efforts towards prevention are less than adequate. It appears that awareness and practice are not directly linked.

We also noted that many gynecologists failed to offer HPV vaccination to clients in their practice. This clearly points towards the need to have an action oriented understanding about several aspects of preventive gynecology among practicing health care personnel, including the specialists.

Proper and effective utilization of available facilities would depend on creating better understanding and change in their outlook. Stepping up and strengthening of preventive health care services is essential to reduce the burden from cervical cancer and other gynaecological cancers.

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