Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20193457

A study on awareness of cervical cancer and human papilloma virus vaccine among the women's degree college students in Nandyal

Ganesam Krishna Kumari*, M. A. M. Pasha, Afsar Fathima

Department of Community Medicine, Santhiram Medical College, Nandyal, Andhra Pradesh, India

Received: 24 April 2019 Revised: 26 June 2019 Accepted: 01 July 2019

*Correspondence:

Dr. Ganesam Krishna Kumari, E-mail: krishnakmc07@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: In India cervical cancer is the second most common cause of cancer mortality in women after carcinoma breast. Human papilloma virus (HPV) is the principal causative agent for cervical cancer. FDA approved 2 vaccines for primary prevention, and is available in India, but is not part of National Immunization Programme. Due to societal, religious and ethical issues associated with the vaccination of adolescent girls in India together with lack of awareness about HPV and HPV vaccines, no successful HPV immunization program has been employed in India. To study the awareness of Degree college students on cervical cancer and HPV vaccine.

Methods: This cross sectional study was conducted at SPY REDDY Women's Degree College, Nandyal from 16th December 2018 to 15th February 2019. The participants were 327 Degree students of first to final year. Students who were not present during the study were excluded from the study. The data was collected using a semi structured questionnaire. The data was analysed by using spss version 24 and the results expressed as proportions.

Results: The mean age of participants was 19.53 ± 1.26 years. 89% of the students were unmarried and 11% were married. 46.4% of the students were aware of cervical cancer. Poor genital hygiene (11.2%), smoking and alcohol (5.8%), multiple sex partners (4.3%), sex at an early age (3.4%), long term OCP usage (2.5%) were considered as risk factors for cervical cancer by the students. 18.4% of the students had knowledge about HPV virus. Among the students who knew about cervical cancer, 22.3% of the students responded as vaginal bleeding after menopause is a symptom of cervical cancer, 8.1% responded as bleeding during or after sex, 3.4% as pain during sex, 1.6% as severe low backache. Only 1% knows about Pap smear. Only 12% know about the vaccine. Only 4% correctly knew the vaccine eligibility. None of the students were HPV vaccinated.

Conclusions: The level of awareness of students about cervical cancer and HPV vaccine is far below for effective vaccination and prevention of carcinoma cervix. More effective awareness programmes are needed to screen early for cervical cancer and vaccinate & prevent the high mortality from carcinoma cervix.

Keywords: Cervical cancer, HPV virus, Pap smear, HPV vaccine

INTRODUCTION

In India, cervical cancer is the second most common cause of cancer mortality in women after carcinoma breast. It accounts for 23.3% of all cancer deaths in women in India. The prevalence of cervical cancer and the disease burden is high among the women of low

socioeconomic status and in rural women.^{2,3} Human papilloma virus (HPV) is the principal causative agent for cervical cancer.⁴ More than 140 types of HPV were identified, of which 2 major genotypes HPV 16 and 18 are responsible for more than 80% of cervical cancer in India. Risk factors for cervical cancer include early age of marriage, poor genital hygiene, multiple pregnancies,

multiple sexual partners, and smoking.⁵ PAP smear, a cytology based screening programme is effective in diagnosing cervical cancer at an early stage.⁶ FDA approved 2 vaccines for primary prevention, quadrivalent (HPV 16, 18, 6 and 11) 'Gardasil' and a bivalent (HPV 16 and 18) 'Cervarix'.⁷ These are commercially available in India, but are not part of National Immunization Programme. Due to societal, religious and ethical issues associated with the vaccination of adolescent girls in India together with lack of awareness about HPV and HPV vaccines, no successful HPV immunization program has been employed in India. Objective was to study the awareness of degree college students on cervical cancer and HPV vaccine

METHODS

This cross sectional study was conducted at SPY REDDY Women's Degree College, Nandyal. The participants were 327 Degree students from first to final year. Students who were not present during the study were excluded from the study. The study was conducted from 16th December 2018 to 15th February 2019. The data was collected using a semi structured questionnaire. The data was analyzed by using SPSS version 24 and the results expressed as proportions.

RESULTS

After taking permission from Head of the Department and Institution Ethical Committee and Head of the concerned college, the questionnaire was distributed to the students and the results were analysed.

In this study, the mean age of participants was 19.53±1.26 years. 89% of the students were unmarried and 11% were married. 53.6% of the students don't know about cervical cancer and 46.4% of the students were aware of it.

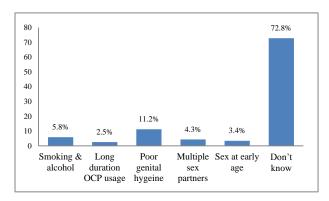


Figure 1: Risk factors for cervical cancer.

In this study, 72.8% of the students responded that they don't know the risk factors for cervical cancer, while poor genital hygiene (11.2%), smoking and alcohol (5.8%), multiple sex partners (4.3%), sex at an early age (3.4%), long term OCP usage (2.5%) were considered as

risk factors for cervical cancer by the students. 18.4% of the students had knowledge about HPV virus and 2% of the students knew that HPV infection can be transmitted through intercourse.

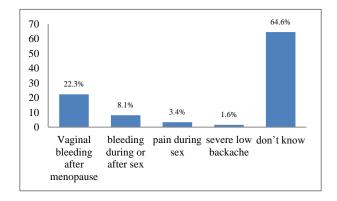


Figure 1: Symptoms of cervical cancer.

In this study, among the students who knew about cervical cancer, 22.3% of the students responded as vaginal bleeding after menopause is a symptom of cervical cancer, 8.1% responded as bleeding during or after sex, 3.4% as pain during sex, 1.6% as severe low backache. 64.6% of the students responded that they don't know the symptoms of cervical cancer.

In this study, 99% of the students don't know about PAP smear and only 1% know about PAP smear. 88% of the students don't know about HPV vaccine and only 12% know about the vaccine.

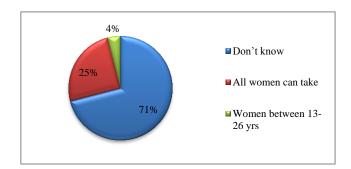


Figure 3: HPV vaccine eligibility.

Among the students who knew about HPV vaccine, 71% of the students don't know about the eligibility of vaccine, 25% responded that all the women can take HPV vaccine and only 4% correctly knew the vaccine eligibility. None of the students were HPV vaccinated.

DISCUSSION

Cervical cancer is a major cancer in India, but it is curable if detected early. The development of HPV vaccine is a great advancement in medicine and has led to the concern of further research in vaccine preventable cancers.

Our study showed that, 46.4% of the students were aware of cervical cancer compared to Siddarthar et al, where 44.5% of the women were aware of cervical cancer. In our study 18.4% of the students had knowledge about HPV virus compared to Baloch et al, where 37.9% of the women had knowledge about HPV virus. 6.2% of the students knew that HPV infection can be transmitted through intercourse compared to Baloch et al, where 20% knew that it is transmitted through intercourse.

In our study, only 12% of the students know about HPV vaccine compared to Johnson et al, where 34% of the respondents had knowledge about vaccine. ¹⁰ In our study only 4% of the students correctly know about the eligibility of vaccine compared to Rashid et al, where 6.28% of the students know correctly about vaccine eligibility. ¹¹

CONCLUSION

Although cervical cancer is a major cancer in India, the present reflects the limited knowledge and understanding about cervical cancer among the students. This is alarming because even after almost a decade of introduction of HPV vaccines, which are available in India since 2008, not many parents are interested to get their daughters vaccinated. Generally, students of teenage should have a higher level of awareness regarding carcinoma cervix and HPV Vaccine, but in this study their level of awareness is far below for effective vaccination and prevention of carcinoma cervix.

Recommendations

- There is an urgent need for educational intervention both formal and informal, to the students.
- Parents should also be educated to change their attitude towards HPV vaccination.
- HPV vaccination should be incorporated in the National Immunization Program.

Limitations

- Study sample is small, so the data cannot be generalised.
- Study was conducted only on teenage students whose level of awareness is generally higher than students of lower age group.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethical Committee

REFERENCES

- Ferlay J, Shin HR, Bray F, Forman D, Mathers C, Parkin DM. Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. Int J Cancer 2010;127(12):2893-917.
- 2. Vallikad E. Cervical Cancer. The Indian Perspective. Int J of Gynecol Obstet. 2006;95(1):215-33.
- 3. Kurkure AP, Yeole BB. Social inequalities in cancer with special reference to South Asian countries. Asian Pac J Cancer Prev. 2006;7(1):36-40.
- Bosch FX, De Sanjosé SS. Human papillomavirus and cervical cancer-burden and assessment of causality. J Natl Cancer Inst Monogr. 2003;31:3-13.
- Das BC, Gopalkrishna V, Hedau SKS. Cancer of the Uterine Cervix and Human Papilloma viruses. Curr Sci. 2000;78(1):52-63.
- Miller AB, Chamberlain J, Day NE, Hakama M, Prorok PC. Report on a workshop of the UICC project on evaluation of screening for cancer. Int J Cancer. 1990;46(5):761-9.
- 7. Singhal T. Indian Academy of Pediatrics Committee on Immunisation (IAPCOI)-Consensus Recommendations on Immunization 2008. Indian Pediatr. 2008;45(8):635-48.
- 8. Siddharthar J, Rajkumar B, Deivasigamani K. Knowledge and awareness of cervical cancer and its prevention in women attending a Tertiary Care Hospital. J Clin Diagn Res. 2014;8(6):OC01-3.
- 9. Baloch Z. Yasmeen N, Li Y, Zhang W, Lu H, Wu X et al. Knowledge and awareness of cervical cancer, Human Papilloma Virus (HPV) and HPV Vaccine Among HPV-Infected Chinese Women. Med Sci Monit. 2017;23:4269-77.
- Johnson DC, Bhatta MP, Gurung S, Aryal S, Lhaki P, Shrestha S. Knowledge and awareness of human papillomavirus (HPV), cervical cancer and HPV vaccine among women in two distinct Nepali communities. Asian Pac J Cancer Prev. 2014;15(19):8287-93.
- 11. Rashid S, Labani S, Das BC. Knowledge, awareness and attitude on HPV, HPV vaccine and cervical cancer among the college students in India. PLoS ONE. 2016;11(11): e0166713.

Cite this article as: Kumari GK, Pasha MAM, Fathima A. A study on awareness of cervical cancer and human papilloma virus vaccine among the women's degree college students in Nandyal. Int J Community Med Public Health 2019;6:3370-2.