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Original Research Article

Awareness of human papilloma virus vaccine among medical interns in tertiary health centre

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ABSTRACT

Background: Human Papilloma virus [HPV] infection is one of the most common sexually transmitted disease[STD] in the entire world. In India, HPV infections stands as one of the first few major cause of STD among both male and female adolescents and adults. However studies done in major centers reveals that awareness about this disease among the general population is poor. Aim of this study was the awareness of HPV and its preventive measures among medical interns who have recently completed their graduation and doing medical internship in a tertiary care centre.
Methods: Total 100 participants were subjected to questionnaire study which has questions on basic knowledge about HPV and its preventive measures. The data were analyzed using Microsoft excel software.
Results: Statically 98% of the study population was aware of HPV, whereas 78% were having knowledge about the vaccine availability for prevention of HPV and only 55% of them knew that the vaccine is available for use in India.
Conclusions: Although majority of participants are having knowledge about HPV, the awareness on vaccine and its potentials are very poor. It is very important to put more emphasis on educating medical, nursing, para medical students and interns of various discipline on HPV infection and its preventive measures.

Keywords: Cervical cancer, Genital warts, Human Papilloma virus

INTRODUCTION

HPV infection stands top in line among sexually transmitted disease [STD]. As per statistical analysis 80-90 % of HPV infections go transient, self-limiting by our body immune mechanism, however the chronicity occurs when viral DNA multiplies and persists in the system. It can cause genital warts, cervical dysplasia, cervical, vulvar, oropharyngeal and penile cancer.[1]

As per statistical analysis, 26-43% of the total female cancer patients in India are suffering from cervical cancer. This is the 2nd leading cause of death in females aged 15 to 44 years.[2,3] The factors behind the spread of this disease are mainly because of sexual contact, multiple sexual partners and poor genital hygiene.[4]

Screening test detects only precancerous and cancerous changes of the HPV related cancer. It is not an alternative to the preventive measures available for HPV related cancer. Hence the HPV vaccination is introduced at early age.[5] It is also recommended by WHO (2009) as a health care priority to introduce in National Immunization Programme. In India, the vaccine is marketed by MSD by the trade name GARDASIL, it is a quadrivalent (HPV 6,11,16,18) vaccine and another vaccine marketed by GSK by the trade name CERVARIX, a bivalent vaccine (HPV 16,18). Schedule of HPV vaccine recommended by WHO (2014) is 2 doses, 6-12 months apart for adolescents who have taken first dose at the age of ≤ to 14 years. Age group ≥15 years and immune compromised group need 3 doses 0,2 and 6 month apart.[6,7] Quadrivalent vaccine can be given to both males and females.[8]

Many research studies have shown that HPV vaccine has very good effect in preventing the HPV spread and is tolerated well with good antibody titer, giving long term protection against HPV infection. However, it is not a part of National immunization schedule, in spite of USFDA approval. The reason may be due to unexplained deaths that occurred during the trial of vaccine done by PATH and ICMR.[9] Cost factor, poor disease awareness are the important key factors of poor utilization of HPV vaccine.[10]

Our main goal should be directed towards the newly graduated medical interns, postgraduates to improve awareness, exposure to more research and vaccination program to improve the health system.

METHODS

This study focused on medical interns as they will be exposed to community in the future. It is a cross section study, performed among medical interns of the 2018-19, Yenepoya Medical College and Hospital of Mangalore. This study was approved by Institutional Ethics Committee. Total sample size was 100. Among them, 58 were females and 42 were men.

Inclusion criteria

- Those who have cleared final MBBS examination and started internship in 2018 onwards in Yenepoya Medical College Hospital.
- Those who agreed to participate in the study on the specified day and venue.

Exclusion criteria

- Those who were not willing to participate in the study on the specified day and venue.

All the participants were given participant information brochure and were asked to sign the consent form. They were given the questionnaire, consisting of multiple choice questions which include knowledge on Human papilloma virus, awareness about the vaccines and its role in prevention. All the participants were informed that confidentiality will be maintained .The participants were not aware about the topic of the study till they received the questionnaires.

The data was entered in Microsoft excel and results were analyzed. Frequency and percentages were obtained for each question of the questionnaire.

RESULTS

There were 100 medical interns who were assessed for their knowledge about HPV and its vaccine through this questionnaire. The results were as follows.98% were aware of HPV, 82% knew that it can cause cervical cancer. 68% of them were aware that apart from cervical cancer it can also cause other form of cancer and diseases. The findings reveal that 84% of the sample were aware that mode of transmission of HPV is through sexual contact. It was found that 40% of the participants did not know that men can contract HPV but a majority of them 92%, knew that its women can contract HPV. The study reveals that only 85% were aware that it is a vaccine preventable disease while 15% of the participants did not know about the HPV vaccine (Table 1).

Table 1: Knowledge about HPV.

Questions	Correct	Incorrect	Don't know
Have you heard of HPV?	98	2	0
Can HPV cause cervical cancer?	82	18	0
Can HPV cause other forms of cancer?	68	22	10
Can HPV cause condyloma?	56	36	8
Can HPV be transmitted through sexual intercourse?	84	16	0
Can women contract HPV?	92	8	0
Can men contract HPV?	48	12	40
Is there a vaccine against HPV?	85	2	13

Table 2: Awareness about HPV vaccine.

Questions	Correct	Incorrect	Don't know
Is the vaccine commercially available in India?	74	4	22
At what age is HPV vaccine can be given?	76	8	16
Can it be given to boys?	45	21	34
Can it be given to girls before the onset of sexual activity?	72	19	9
How many doses of HPV vaccine has to be received?	76	16	8
Route of administration of HPV vaccine	74	18	8
Can HPV vaccine prevent cervical cancer and anogenital warts?	76	16	8
Do you like to receive HPV vaccine and recommend to your friends?	78	9	13

Out of the 85% who were aware about the vaccine, only 74% knew that vaccine is available in India, however they did not know the names of the commercially available vaccines. About 76% had the knowledge regarding the recommended age group for vaccination. Majority of the medical interns, 55% were unaware that HPV vaccine can be given to boys. Regarding the dosage schedule of the vaccine, only 76% knew about it correctly.

It was found that 74% participants had an idea that the route of administration of vaccine was intramuscular,76% of the participants correctly answered that HPV vaccine prevents cervical cancer and anogenital warts, 78% of the participants opined that they would like to get vaccinated and recommend others to receive HPV vaccine (Table 2).

DISCUSSION

Study done by Hoque Muhammad et al depicts that 71% of the medical students were aware of HPV and its vaccine, 29% were not aware of the HPV vaccine. Whereas our study showed a good number of the study population knew about HPV (98%) and its vaccine (85%). This may be because students were exposed to more cases and discussion during their posting in the hospital as medical interns .The above study also showed that 65% of them had knowledge about genital warts caused by HPV whereas awareness was slightly poor in our study may be because patients suffering from genital warts coming to our hospital is much less compared to African country.[11]

A study done by Challa et al, showed 89% of the medical students were having correct answer on question the HPV can cause other forms of cancer whereas our study 68% percentage of study population knew the correct answer .The same study showed 90.5% of the participants knew about vaccine availability for HPV, 77.9% knew that the vaccine is available in India. This result is comparable to our study.[12]

Deeksha Pandey et al, study reveals that 25% of the study population had correct answer about the requirement of vaccination for the boys whereas in our study 45% of them knew the correct answer. According to the same study, 50% of the students were aware of the vaccine schedule whereas in our study 76% of the medical interns knew the correct answer. This could be because of more exposure to the medical and pediatrics OPD patients.[13]

Bernard Duval et al, reported in his study that 88% of the clinicians in Canada recommend HPV vaccine whereas in our study 78% of the study populations would like to receive and recommend the vaccine. Same study depicts 94% of the clinicians had idea about the vaccine can prevent both cervical cancer and anogenital warts and 89% thought the vaccine prevents only cervical cancer whereas in our study 76% of the students had knowledge about the vaccine can prevent cervical cancer and genital warts.[14]

According to Hoque Muhammad et al, 72% of the medical students believe that vaccine should be given to the girls before the onset of the sexual activity, our study showed similar results.

CONCLUSION

Sexual transmitted disease control is a major challenge to health care system in India. As far as HPV infection is concerned , it is ignored and untreated in many patients because of their poor knowledge about the disease .It is important to develop proper methods to improve education systems regarding HPV infection at the ground level. Our main priority should be to educate fresh medical graduates, doctors, nursing and paramedical staff. Presently our study showed a good knowledge of awareness of HPV infection among our medical interns. However, more clarity and knowledge on prevention of HPV infection is required.

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REFERENCES

1. Blödt S, Holmberg C, Müller-Nordhorn J, Rieckmann N. Human Papillomavirus awareness, knowledge and vaccine acceptance: A survey among 18-25 year old male and female vocational school students in Berlin, Germany. Europ J Pub Heal. 2011 Dec 23;22(6):808-13.
2. Mehta S, Rajaram S, Goel G, Goel N. Awareness about human papilloma virus and its vaccine among medical students. Ind J Commu Med: official publication of Indian Association of Preventive & Social Medicine. 2013 Apr;38(2):92.
3. ICO/IARC Information Centre on HPV and Cancer (HPV Information Centre), 2019; Mortality from cervical cancer in India.
4. Das BC, Gopalkrishna V, Hedau S, Katiyar S. Cancer of the uterine cervix and human papillomavirus infection. Current Science-Bangalore. 2000 Jan 10;78(1):52-63.
5. Nigam A, Saxena P, Acharya AS, Mishra A, Batra S. HPV vaccination in India: critical appraisal. ISRN obstetrics and Gynecol. 2014 Mar 11;2014.
6. Human papillomavirus vaccines. WHO position paper. 2009 Apr 10;84(15):118-31.
7. D'Addario M, Redmond S, Scott P, Egli-Gany D, Riveros-Balta AX, Restrepo AM. Two dose schedule for human papilloma virus vaccine;

Systematic review and meta-analysis. Vaccine 2017 May 19;35(22):2892-901.
8. Canadian Immunization Committee. Summary of Canadian Immunization Committee (CIC) recommendations for human papilloma virus immunization programs. Can Commun Dis Rep. 2014; 40:8:152-3.
9. Choudhury P, John TJ. Human papilloma virus vaccines and current controversy. Indian pediatrics. 2010 Aug;47(8):724-5.
10. Rathod S, Samal SK, Samal S, Ghose S. Knowledge and awareness of cervical cancer and Human Papilloma Virus Vaccine among Medical Students: A Cross-sectional Study. J South Asian Feder Menopause Soc. 2017;5(1),41-4.
11. Muhammad H, Van Hal G. The knowledge about, beliefs and attitudes of medical students regarding vaccination against the human papillomavirus, in South Africa: a cross-sectional study. Biomedical Research. (0970-938X). 2015;26(1):65-70.
12. Challa N, Madras V, Challa S. Awareness and attitude regarding human papilloma virus and its vaccine among medical students in a medical school in India. Internat J Rese Med Sci. 2014;2(4)1607-11.
13. Pandey D, Vanya V, Bhagat S, Binu VS, Shetty J. Awareness and attitude towards human papillomavirus (HPV) vaccine among medical students in a premier medical school in India. PloS one. 2012 Jul 31;7(7):e40619.
14. Duval B, Gilca V, McNeil S, Dobson S, Money D, Gemmill IM, et al. Vaccination against human papillomavirus: a baseline survey of Canadian clinicians' knowledge, attitudes and beliefs. Vaccine. 2007 Nov 7;25(45):7841-7.

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