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WHAT'S INSIDE

Message from the president

Article

Clinical Pearls

Introduction to Ayurveda

Watch this space

In A Lighter Vein

Share your activity

Guess where?

From the Secretary's desk

My dear friends,

"If winter comes can spring be far behind?". Many of us are going through tough times with family and friends going through COVID. We have been arranging beds and oxygen supplies not only for our patients but also for near and dear ones. We don't have a choice but to hold on and hope that there is bright light at the end of a short tunnel. And that is why we have focussed this edition of our newsletter on "Spring".

One important event that has happened is that AOGIN – India has a collaboration with the International papilloma virus society (IPVS) and our members have access to the resources on the IPVS website. With Ayush's increasing foot prints, we thought it would be good to know what Ayurveda actually means and towards this we have an article about the ancient science of Ayurveda. A lot of screening activities have been put on hold due to the pandemic and we have shared awareness and screening activities that our members have participated in during the last few months.

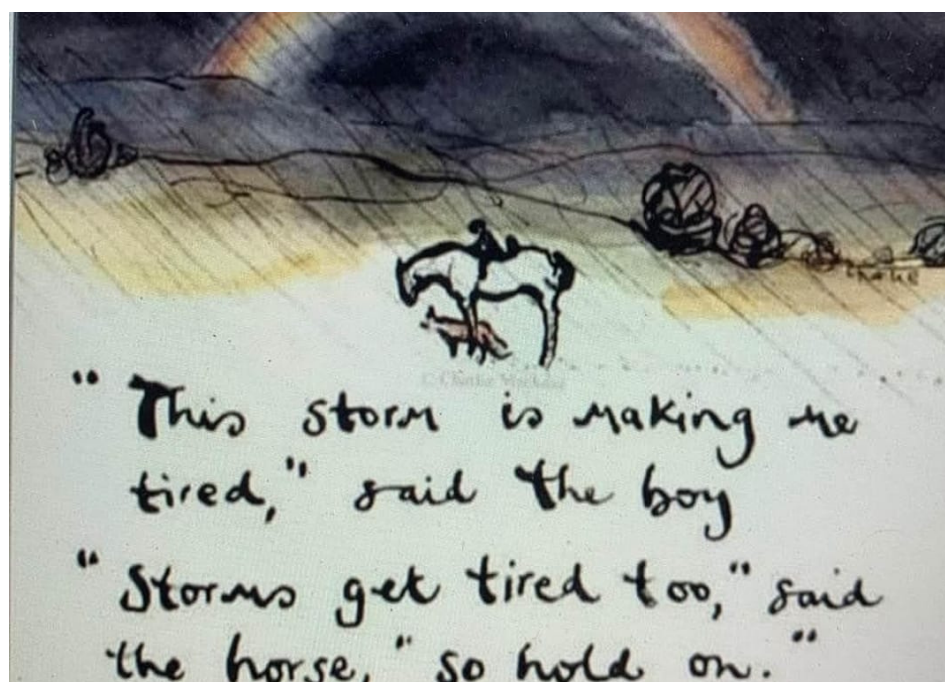
Apart from our regular features we have also added a "Quiz Corner" which we hope you will find interesting. We will also be starting our AOGIN – India Academics Part II – a series of eight lectures every Saturday from mid-August. If there are any topics you would like us to cover, please let us know.

Do visit the AOGIN – India website as well. In the coming days, we hope to have a set of presentations that our members can use for their awareness talks. The link to the IPVS website will be on our website shortly. Keep your feedback and comments coming and till we meet again..."Hope springs eternal!"

With all best wishes,



Latha Balasubramani



MESSAGE FROM THE PRESIDENT

Dear friends and colleagues,

The entire world, and arguably the medical profession now more than ever, is passing through unprecedented times. With the aim of tending to the more urgent challenges presented by COVID-19, cancer screening and prevention have been pushed to the back burner. However, this reduced vigilance will likely have a detrimental impact on the prevention rate. While we continue to dedicate our workforce and infrastructure to treating acutely sick COVID-19 patients, it is imperative that we keep the screening window open, catering mainly to the vulnerable and high-risk population. In times of misinformation and lack of access, let us continue keeping our spirits high, spreading awareness, and updating our knowledge through seminars and CMEs.



Let us hope that healthier and safer times are around the corner. Until then, let us, together as an organisation, continue our work at a nimble but steady pace. And most importantly, we must continue to uphold the interest of our patients and families.

Warm Regards,

A handwritten signature in black ink, appearing to read 'Sabhyata', on a light pink rectangular background.

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VACCINATION AND SCREENING IMPLEMENTATION IN LOW-AND-MIDDLE INCOME COUNTRIES: OPPORTUNITIES, CHALLENGES AND ANTICIPATED OUTCOMES

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Cervical cancer is a major public health problem and ranks among the first three major cancers affecting women in low-and middle- income countries (LMICs). It accounted for 604,000 incident cases and 342,000 deaths in 2020 globally of which more than 85% occurred in LMICs thanks to the historic and remarkable lack of screening programmes. Cervical cancer is the most preventable cancer and has a huge potential for elimination. It is rather a paradox that LMICs continue to face a huge burden of locally advanced cervical cancer.

A major discovery in disease control at the end of the 20th century was the establishment of persistent infection with one of the 13 high-risk types of human papillomavirus (hrHPV) was the necessary cause for cervical cancer. This essentially means that persistent hrHPV infection is essential for the development of cervical cancer but not everyone with hrHPV infection will develop cervical cancer. HPV infection is acquired most commonly after sexual debut. It is the most common lower genital tract infection, but the infection clears in more than 85% of women within 2 years of acquiring it. Thus, cervical precancerous lesions and cervical cancer are rare long-term outcomes of a very common lower genital tract infection. The understanding of HPV related carcinogenesis has opened up highly effective means of preventing cervical cancer by vaccination and HPV testing that has a major application for global elimination of cervical cancer.

The World Health Organization (WHO) is promoting a global initiative to eliminate cervical cancer as a public health problem by implementing a 90%-70%-90% triple intervention strategy before the year 2030 which is as follows:

- 90% of girls to be fully vaccinated with two doses at 6 or 12 month intervals of a HPV vaccine by 15 years of age
- 70% of women to be screened using a high-performance screening test by 35 years of age and again by 45 years of age
- 90% of women identified with cervical cancer precursor lesions or cancer to be treated::

WHO has set in an incidence threshold of 4/100,000 cases for pragmatic elimination. While high-income countries (HICs) are well advanced in implementing the above policy, the experience in LMICs is highly variable. For instance, among the 11 member states in the WHO-SEARO, only 5 countries (Bhutan, Maldives, Myanmar, Sri Lanka, Thailand), certain provinces in India (Sikkim state; Punjab in 2 districts) and Indonesia have implemented the vaccination programme targeting a single age group through predominantly a school based programme. Incidentally Bhutan was the first country in Asia to introduce HPV vaccination. Bangladesh and Nepal have completed pilot introduction of HPV vaccination and are planning to introduce nationwide HPV vaccination in the near future, depending upon vaccine availability which is a major challenge now due to the mismatch between vaccine

demand and supply. Despite contributing a huge burden of cervical cancer, India's track record in implementing HPV vaccination is dismal.

On the other hand, screening programmes either do not exist or very poorly developed in all member states of WHO-SEARO with the possible exception of Thailand which had a long standing cervical cytology screening programme which is being replaced by a HPV testing based screening programmes in phased manner to cover the entire country. A recent survey in India indicated that less than 2% of women have ever been screened.

Despite making substantial progress in health care infrastructure and health care services, China is yet to provide nation wide HPV vaccination and screening programmes with high coverage. Implementation of vaccination and screening initiatives is fragmented, regional and with low coverage. Malaysia has implemented a nation- wide, highly organised HPV vaccination programme with high coverage. Most of the pacific island nations including Fiji have implemented HPV vaccination but screening is sporadic.

Rwanda was the first African country to introduce the HPV vaccine in 2011 and has achieved a 98.7% coverage with its school-based effort targeting sixth-grade girls and outreach for girls not in school. Uganda followed suit with a school-based vaccination programme in 2015. In addition, currently, South Africa, Swaziland, Botswana, Zambia and Malawi have introduced nation wide HPV vaccination programmes. Cervical screening programmes are essentially absent in Africa, with the exception of South Africa (cytology), Botswana, Morocco, Rwanda, and Zambia (VIA programmes)..

Latin American LMICs are in the forefront of implementing HPV vaccination programmes with almost all countries having a national programme implemented through school health services. Argentina, Chile, Uruguay and Mexico have implemented HPV screening nation wide replacing cervical cytology. Large scale cytology based programmes are in place in Brazil, Cuba, Colombia, Peru and Ecuador.

Regional and country-wide estimates of cervical cancer burden and the projected impact of HPV vaccination targeting HPV types 16 and 18, with and without cross-protection, and through vaccines targeting HPV types 16, 18, 31, 33, 45, 52, and 58, among young girls born between 2005-2014 who could develop cervical cancer if not vaccinated is useful for monitoring and evaluating HPV vaccination initiatives. The global burden of cervical cancer in these birth cohorts is estimated to be 11.6 million cases by 2094 if not vaccinated. Four-fifths of this burden will be in 25 countries mostly located in Africa (5.6 million cases) and Asia (4.5 million cases).

In the absence of vaccination, 51.3% of the overall expected burden (5.9 million cervical cancer cases over a lifetime) would affect birth cohorts in India, Nigeria, China, Tanzania, Indonesia, Uganda, Democratic Republic of the Congo, Ethiopia, and Kenya. Another 2.8 million cases, corresponding to 24.2%, would be in 17 countries mostly in sub-Saharan Africa (South Africa, Malawi, Zambia, Mozambique, Angola, Zimbabwe, Madagascar, Mali, Ghana, and Burkina Faso), Asia (Pakistan, Bangladesh, and the Philippines), the Americas (Brazil, Mexico, and the USA), and in Russia. The remaining 24.5% (2.8 million cases) in unvaccinated birth cohorts is expected to occur in the remaining 159 countries. World-wide HPV vaccination with high coverage could

prevent about 8.7 million cases by 2094. There are several challenges in ensuring adequate inputs for cervical cancer elimination. Resource constraints, vaccine supply deficiencies, vaccine hesitancy, anti-vaccine campaigns, lack of adequate infrastructure and human resources for precancer diagnosis and management as well as for invasive cancer treatment and follow-up care limit the timeline to achieve inputs and expect tangible outcomes.

Cervical cancer elimination is a long-term target that needs long-lasting commitment from national authorities. The commitment, long-term vision, adequate budgetary allocations and visualising cervical cancer elimination as an important component of women's welfare have been the main forces driving the investments that LMICs such as Thailand, Sri Lanka and Latin American LMICs etc have made towards the global elimination of cervical cancer.

HUMANPAPILLOMAVIRUS VACCINATION FOR ADULTS AGED 30 TO 45 YEARS IN THE UNITED STATES: A COST-EFFECTIVENESS ANALYSIS

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Background:

In the United States, routine vaccination against human papillomavirus (HPV) has been recommended for girls and young women up to 26 years and boys and young men up to 21 years. The bivalent (HPV-2) vaccine targets HPV-16/18 only, and a quadrivalent (HPV-4) vaccine additionally targets HPV-6/11. Recently, nonavalent (HPV-9) vaccine was licensed that targets 7 high-risk HPV genotypes (HPV-16/18/31/33/45/52/58) and HPV-6/11.

There is evidence supporting vaccine efficacy in previously unexposed older populations and the recent US licensure of HPV-9 up to age 45 years have revived the question of the optimal age limit for HPV vaccination. In June 2019, the Advisory Committee on Immunization Practices (ACIP) stated that HPV vaccination between ages 27 to 45 years should be based on shared clinical decision-making.

Therefore, this analysis was conducted to evaluate the cost-effectiveness of extending the upper age limit of HPV vaccination in women and men up to age 45 years to inform the national guidelines.

Method:

Analytic Overview: Microsimulation models of HPV infection and cervical cancer that are part of the Cancer Intervention and Surveillance Modeling Network (CISNET): Harvard University (Harvard) and Cancer Council New South Wales (Policy1-Cervix) were taken.

These models estimated the lifetime costs, benefits, and cost-effectiveness of extending HPV vaccination from the earlier guidelines (i.e., up to 26 years in women; up to 21 years in men) to vaccinating both women and men up to age 30, 35, 40, or 45 years (i.e., mid adult vaccination) in the US. The analysis focused on the nonavalent HPV vaccine (HPV-9) for the new vaccination strategies but incorporated historical vaccination coverage using the quadrivalent vaccine (HPV-4) also.

In addition to cervical disease outcomes, vaccine impacts on non cervical HPV-related cancers and genital warts using incidence-based models were also estimated.

Health benefits were expressed as quality-adjusted life years (QALYs); costs were expressed in 2018 US dollars. Using standard methods of cost-effectiveness, incremental cost-effectiveness ratios (ICERs) was calculated, and results were interpreted in terms of a recommended threshold range of \$50,000 to \$200,000 per QALY gained in the US. Reporting was done according to HPV-FRAME standards for models evaluating HPV vaccination in adolescents and adults.

Model Description:

HPV and cervical models: Both models capture HPV transmission, cervical cancer natural history, HPV vaccination, and cervical screening, diagnosis, and treatment.

Non-cervical HPV-related diseases:

An incidence-based approach to estimate the impact of HPV vaccination on other HPV-related cancers (i.e., anal, oropharyngeal, vulvar, vaginal, penile) and genital warts was used.

For this analysis, an assumption was made that the dwell time from infection to cancer for the non-cervical cancers was only 5 years.

Analysis:

Vaccination Strategy: In both models, female vaccination up to 26 years was assumed to start in 2007, and male vaccination up to 21 years was assumed to start in 2010. In both sexes, vaccination was assumed to start with HPV-4 and transition to HPV-9 from 2015 onwards, based on ACIP recommendations. It was assumed that all vaccinated individuals fully completed their recommended series (either 2 or 3 doses). Vaccine efficacy was assumed to be 95% over the lifetime against incident HPV infections.

Cervical cancer screening: It was assumed that 3-yearly cytology screening in women aged 21 to 65 years, with management of equivocal and abnormal screens were done according to established guidelines. The results associated with cervical outcomes only, as well as all HPV-related outcomes were expressed.

Results:

Base-case analysis: Compared to status quo HPV vaccination, cervical cancer cases averted continually increased as vaccination age extended up to 45 years, with an estimated 13,200 (Harvard) to 24,500 (Policy1-Cervix) cases averted over the lifetime of women who belonged to birth cohorts 1969 to 2009.

When considering only cervical outcomes, both models found that

strategies of vaccinating females and males up to ages 30, 35, and 40 years were less effective and less cost-effective than an alternative strategy and that vaccinating up to age 45 years had an ICER ranging from \$484,900 to \$1,011,400 per QALY gained.

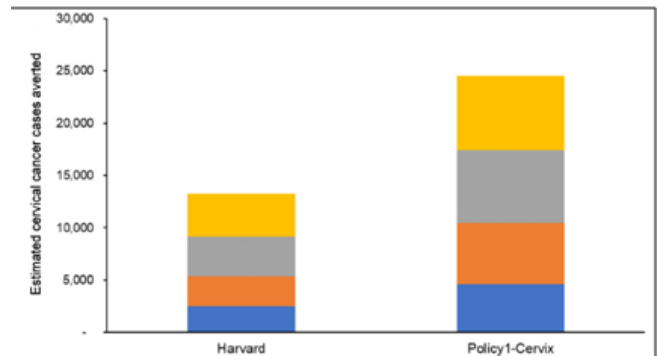


Fig 2. Estimated cervical cancer cases averted. Compared to status quo human papillomavirus (HPV) vaccination, cervical cancer cases averted were projected to continually increase as vaccination extended to women and men ages 30 years (blue), 35 years (orange), 40 years (grey), and 45 years (yellow). Results were calculated based on model projections over the lifetime of 10-year-old girls born in 1969–2009.

Sensitivity analysis:

Both models found that with imperfect cervical screening compliance, vaccinating up to age 40 years was no longer weakly dominated and had an ICER of \$177,900 to \$245,200 per QALY gained

When excluding quality of life and considering only life expectancy, the cost-effectiveness of vaccinating up to age 45 years became less favourable, with ratios ranging from \$598,000 to \$672,800 per life-year saved.

In both models, the ICERs for vaccinating up to age 45 years increased by over 45% when assuming a 40-year lag between vaccination and cancer impact compared to the base case (i.e., 5-year lag); other vaccination strategies remained weakly dominated.

Discussion:

This study shows that vaccination to older ages (30, 34, 40, 45 years) was inefficient or associated with unfavourable ICERs in the US context.

Sensitivity analysis revealed that assumptions about cervical screening compliance, vaccine costs, and the natural history of non-cervical HPV-related cancers could have major impacts on the estimated cost-effectiveness of the vaccination strategies.

Both models almost universally found that the cost-effectiveness of HPV vaccination for adults aged 30 to 45 years was greater than \$200,000 per QALY.

The strategies of vaccinating adults aged 30 to 45 years were assessed in the context of 2 prevention strategies: HPV vaccination in younger cohorts of females and males, which provides some herd immunity benefits for the older unvaccinated cohorts, and cervical screening for women.

Furthermore, due to the long median dwell time between infection and cancer development, the benefits of vaccination tend to be accrued several decades into the future and are thus discounted in cost-effectiveness analysis.

Strength of the study:

- Two independent, well-validated models were employed that have been used for a number of evaluations in different settings.
- This comparative analysis was also done in the context of CDC requesting several independent modelling groups to contribute to the ACIP deliberations.
- Despite variations across all models, the conclusions were qualitatively consistent among those models that were not industry funded.

Limitation of the study:

- “Incidence-based” approach was used for non cervical cancers by both models,

- where it was assumed that there could be an impact of HPV vaccination on incidence of noncervical cancers as early as 5 years after vaccination but may be longer in reality.
- Limited evidence to support modelled assumptions about the time between infection and cancer development.
- Potential changes in the future burden of the noncervical cancers (other than through vaccine impact) was not taken into consideration.
- Vaccine efficacy in older age not well understood.

Conclusions:

The results from two independent models suggest that HPV vaccination for adult women and men aged 30 to 45 years is unlikely to represent good value for money in the US.

Reference:

1. Kim JJ, Simms KT, Killen J, Smith MA, Burger EA, Sy S et al. Human papillomavirus vaccination for adults aged 30 to 45 years in the United States: A cost-effectiveness analysis. *PLoS Med.* 2021 Mar 11;18(3)

PROGRAM ORGANIZATION RATHER THAN CHOICE OF TEST DETERMINES SUCCESS OF CERVICAL CANCER SCREENING: CASE STUDIES FROM BANGLADESH AND INDIA

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Cervical cancer prevention to a significant extent has been achieved by systematic screening in cytology-based call-and-recall programs in high-resource countries. This review article discusses the programmatic approach of implementation and performance of Visual Inspection with Acetic acid (VIA)-based screening in Bangladesh and India, and critically analyzes the strengths and weaknesses of the programs.

Cervical Cancer Screening In

Bangladesh:

The National Strategy for Cervical Cancer Prevention and Control in Bangladesh (2017—2022) released by the Government of Bangladesh in 2017 had the ambitious target of screening approximately 30 million women aged 30—60 years every 5 years with VIA.

Colposcopy was performed by trained Gynaecologists in tertiary care centres on VIA positive women who have been referred. Immediate treatment is offered to those women who are suspected to have precancerous or high grade lesions. Later from the year 2018, women with low grade lesions are also being treated to avoid yearly follow ups. Thermal ablation is gaining popularity for treatment of ectocervical lesions though, Large loop excision of the transformation zone (LLETZ) is the standard treatment performed and yearly follow of such patients is done for 3 years with VIA/Colposcopy and then with 5 yearly screening.

Where patients cannot be referred, VIA positive women at community out-reach clinics are evaluated by hand held colposcope (battery operated-Magnifying device) and those with suspected lesions are offered thermal ablation at the same visit.

All training activities are coordinated by the National Centre for Cervical and Breast Cancer Screening and Training (NCCBCST), which was established in 2012 at BSMMU in Dhaka though the government-funded program and is supervised by a focal point at the Ministry of Health.

Cervical Cancer Screening In India

Although the operational plan for the comprehensive Noncommunicable Diseases (NCD) Control program currently recommends cancer screening only at Community Health Centers (CHCs) and district hospitals, there is an ambitious plan to extend screening to Primary Health Centers (PHCs) which are gradually being converted to Health and Wellness Centers and systematically invite the eligible population under the National Health Mission.

In 2017 the NCD update recommended screening women who are 30 years and above for three common cancers: oral, breast, and cervix. Cervical cancer screening is to be performed once every 5 years using VIA. Cervical cancer screening is to be performed by a female physician, staff nurse or auxiliary nurse midwife (ANM) which is

included in their package of services.

Status of program implementation:

1. A study among frontline healthcare providers expected to provide NCD screening identified the key challenges in implementation to be lack of adequate healthcare personnel, staff overburdened with other routine activities and unaware of their roles in cancer screening and lack of clear guidance on the referral pathways.

2. The state of Tamil Nadu was the first and is still among the few states that have implemented the program in a more systematic manner. A pilot cervical cancer screening program by the Tamil Nadu Health Systems Project (TNHSP) was launched in two predominantly rural districts, Theni and Thanjavur, with support from the World Bank. The pilot project achieved 74% coverage of targeted women.

3. Performance of the cancer screening program is neither systematically measured nor published by either the state or national level programs. The cancer screening program in Tamil Nadu has been the best so far. It screened 14.5 million women between 2012 and 2017 by VIA, with 3.0% testing positive.

Critical assessment of the program:

Bangladesh

1. The most common reasons for not undergoing screening were as follows: the notion that screening was only for symptomatic women (86.1%), not understanding the value of screening (37.5%), and concerns about possible expenses (11.5%). This clearly demonstrates the need for more broad-based educational campaigns.

2. CHWs have a strong presence in the community and can be involved in creating cancer awareness within the community. Improving quality of services, ensuring availability of treatment and pathology services, and reducing out-of-pocket expenditure are key to improve uptake of the program. A system of paper-based data collection from the screening registers maintained at all the screening and colposcopy centers should be initiated until a computerised system is fully effective.

India:

1. Coverage and quality of cancer screening in India is very poor owing to multilevel barriers to implementation. The primary health care facilities are highly deficient in both infrastructure and staffing to provide cervical cancer screening services.

2. Currently, colposcopy and histopathology services are almost nonexistent in most district hospitals. Only the state of Tamil Nadu has demonstrated success in scaling up cervical cancer screening, mainly because of a strong commitment by the state government to ensure funds, programmatic leadership, and a coordinated approach to build human resources and infrastructure.

3. Screening for cancer carries fear, stigma, and anxiety in the community and most women are uncomfortable discussing cervical cancer even when they visit the clinics. The main reasons were shyness, lack of partner support, embarrassment and shame about pelvic examination, and fear of pain or a positive test result.

4. The Tata Trusts Cancer Care Initiative was launched in 2018–2019 to support the state government in implementing a cancer screening program at the district level in the state of Assam in northeast India.

Tata Trusts, in collaboration with the state NCD cell in Assam, undertook an assessment of the existing cancer screening program. A study undertaken in the northeast region among 1400 participants showed that only 31% of women had heard about cervical cancer and, among those, only about 55% knew the appropriate age for screening; screening intake was negligible.

Conclusion:

More than the screening tests, following the right approach to organize several components of a screening program and meticulous attention to quality will determine the success of screening. Screening programs can be effective if they meet three targets:

(1) At least 70% of the targeted population is covered, with special attention given to populations with greater socioeconomic disadvantages;

(2) Screening, diagnostic and treatment services are administered as per protocol to maintain high quality; and

(3) There is a strong linkage between screening and treatment.

An effective health information system that links different levels of services is essential to implement the program, ensure high compliance to services, and maintain quality standards. Strengthening all pillars of the health system related to the cancer care continuum is essential for the success of cervical cancer screening, irrespective of whether screening is based on VIA or HPV testing.

Reference

Bhatla N, Nessa A, Oswal K, Vashist S, Sebastian P, Basu P. Program organization rather than choice of test determines success of cervical cancer screening: Case studies from Bangladesh and India. *Int J Gynaecol Obstet.* 2021 Jan;152(1):40-47. doi: 10.1002/ijgo.13486. Epub 2020 Dec 8. PMID: 33205399.

CLINICAL PEARLS

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Q1- 30 years old female, HPV positive by Hybrid Capture II test.
Colposcopy images are as follows. What will be next line of action?



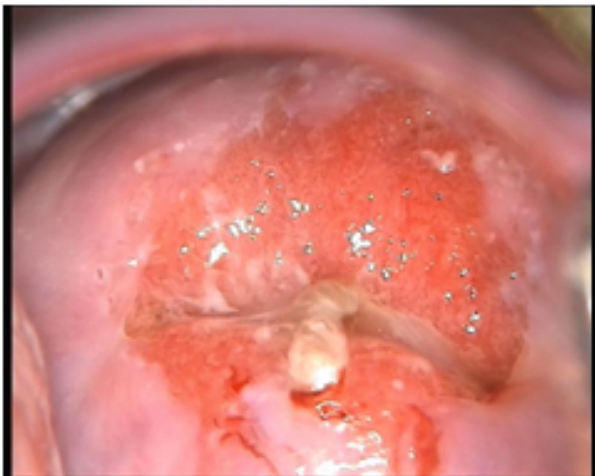
After application of 3-5% acetic acid



After application of Lugol's iodine



Q2- 40 years old female, HPV positive (Hybrid Capture II test), was referred for colposcopy.
How will you manage?



After application of 3-5% acetic acid



After application of Lugol's iodine

AN INTRODUCTION TO AYURVEDA...

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Ayurveda is a traditional system of healing that was first recorded in India about 5000 years ago. The sages of India wanted to alleviate the suffering of mankind and Ayurveda was considered the solution. The word Ayurveda comes from the Sanskrit words ayur (life) and veda (knowledge), making it the 'science/knowledge of life'. Ayurveda employs diet, lifestyle, herbal medicines and treatments as well as rituals to restore mental, physical, social and spiritual health.

Ayurveda's fundamental principle is to live in harmony with nature. It sees the individual as a microcosm of the universe which is considered the macrocosm. Ayurveda is based on the core principle of non-violence and it is through this principle that disease is minimised for both the individual and the environment. Caring for the individual and environment, which are interconnected makes Ayurveda a holistic science.

The World's Oldest Health Science:

Ayurvedic texts dating back to at least 3,500 years ago even describe complex surgical procedures and instruments. Some procedures and instruments are still used today albeit in a highly refined state. Sage Sushruta who documented the process of surgery and the use of instruments is still revered by modern science as the Father of Surgery.

The origins of Ayurveda can be traced to about 6,000 BCE; they were passed from generation to generation as part of an oral tradition. While some concepts of Ayurveda have existed since the times of the Indus Valley Civilization, the first written form of Ayurveda evolved from the vedas –the large body of knowledge

texts that are dated to 1500 – 1000 BCE.

There are 3 principal early texts on Ayurveda – the Charaka Samhita written by Charaka, the Sushruta Samhita written by Suśruta, and the Bhela Samhita written by Atreya Punarvasu. These texts describe theories on the etiology, pathogenesis and therapeutics for a range of diseases.

Healing of the individual and the environment:

Ayurveda principally focuses on harmony and balance, not just within one's body, but also between individuals and their environment. According to Ayurveda, every animate creature including humans have a complex system of body, mind, soul and life force known as prana.

Wellness and Disease:

Ayurveda highlights the need for prevention of disease through proper diet, lifestyle and positivity of mind. It even goes so far as to say that the mind and stomach are the root of most diseases. Ayurveda does not focus on symptoms, but rather aims to diagnose and treat the cause of the imbalance that is responsible for the disease. Symptoms can be treated however they are considered as warning signs of an imbalance on a much deeper level. Ayurveda emphasizes that suppressing natural urges, such as yawning, belching, passing flatus etc is unhealthy and can lead to illness. It highlights the need for moderation in diet, sleep, and sexual intercourse.

Ayurvedic components of Life :

All of this cosmic creation is considered to consist of the five great elements known as the PanchaMahaBhutas which are listed below in increasing order of density:

- Earth (Prithvi)
- Water (Aap/Jal)
- Fire (Agni)
- Air (Vayu)
- Ether (Aakash)

These elements combine in various ways to create the different forms we see on the planet. These have various characteristics that account for various faculties of human experience through our sensory organs. For instance, Agni (Fire) is associated with the eye and linked to the sense of sight, while Aap (Water) is associated with the tongue and linked to the sense of taste. Similarly, Prithvi (Earth) is associated with the nose and linked to the sense of smell, while Vayu (Air) is associated with the skin and is closely linked to the sense of touch. Akash (Space) is associated with the ear and linked to hearing.

The human body and all that exists within this universe is made up of these five elements which combine in different proportions to create diversity in form.

Theory Of Disease:

In the human organisation, the dosha combination gives rise to different physical, emotional and psychological characteristics.

- Vata, comprises Vayu and Akash
- Pitta, comprises Agni and Aap
- Kapha, comprises Prithvi and Aap

As long as the innate balance of these doshas are maintained, the individual will experience good health, but if there is any imbalance, it makes the person susceptible to physical and mental illnesses.

The 8 Medical Branches of Ayurveda: The Ayurvedan system of medicine can be divided into eight branches. This is collectively known as Ashtanga which means eight limbs or parts. Ashtanga comprises the following:

1.Kaya Chikitsa (General medicine)

Kayaa chikitsa is for the treatment of the mind body. It involves the use of herbal medicines and Ayurveda treatments.

2. Bala Chikitsa (Pediatrics)

Bala chikitsa relates to the treatment of children, babies, and antenatal women. It includes information on common diseases and infections in children, as well as the causes and treatments for inadequate breast milk in new mothers.

3. Graha Chikitsa (Psychiatry)

Graha chikitsa relates to the study of mental afflictions that are believed to be caused by external spirits and negativity. It deals with insanity, epilepsy, and psychosomatic diseases. Treatment approaches involve the use of rituals, medicines and ayurveda treatments.

4. Shalaky Tantra (ENT)

Shalaky tantra deals with conditions that affect the ears, nose, and throat. The medical texts enumerate various natural remedies and also describe surgeries to deal with more complex problems.

5. Shalya Tantra (Surgery)

Shalya tantra deals with surgical procedures, especially for the removal of foreign bodies or growths. It describes surgical techniques used to treat conditions such as cataract, kidney stones, haemorrhoids and much more. This branch of treatment is rarely used today except in the treatment of haemorrhoids.

6. Agada Tantra (Toxicology)

Agada Tantra is the branch of Ayurveda that studies the effects and treatments of toxins and poisons. It covers toxins that are present in plants and animals, as well as the toxicity of certain minerals. Agada tantra also provides a list of foods that cannot be consumed together as they can produce toxins when they come in contact with each other.

7. Rasayana Chikitsa (Rejuvenation Therapy)

Rasayana deals with the aging process and methods of rejuvenation.

It covers the various problems associated with aging, as well as methods to improve immunity, strengthen memory, and slow down the aging process.

8. Vajjikaran Chikitsa (Sexual dysfunction and virility)

Vajjikaran chikitsa deals with common sexual dysfunctions such as premature ejaculation, erectile dysfunction, and infertility. It also covers aphrodisiacs and methods to improve the health of the individual's progeny. Treatments generally include diet and lifestyle modifications, various detoxification techniques, and herbal preparations.

Healing through Ayurveda:

Ayurveda views the physical, mental, and emotional aspects of human

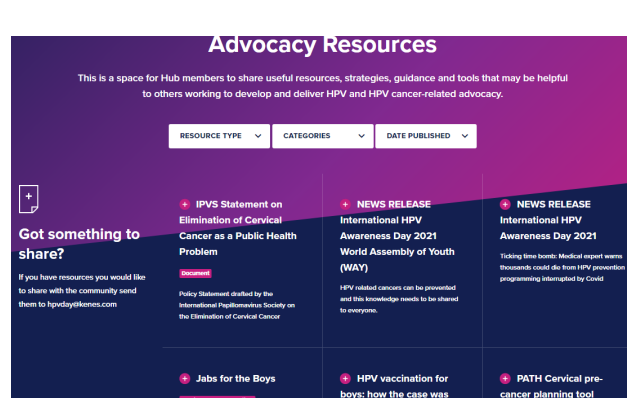
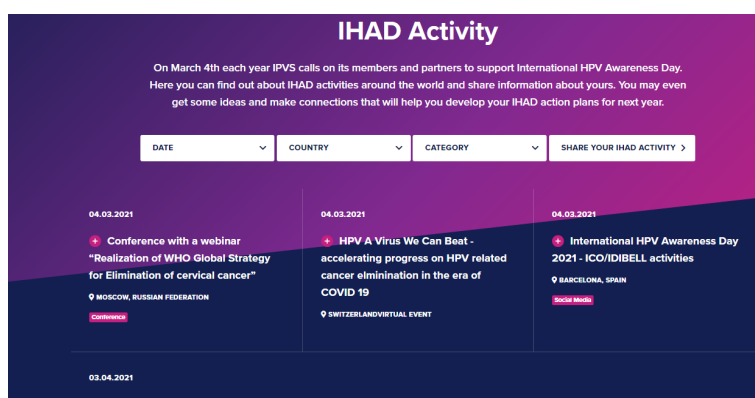
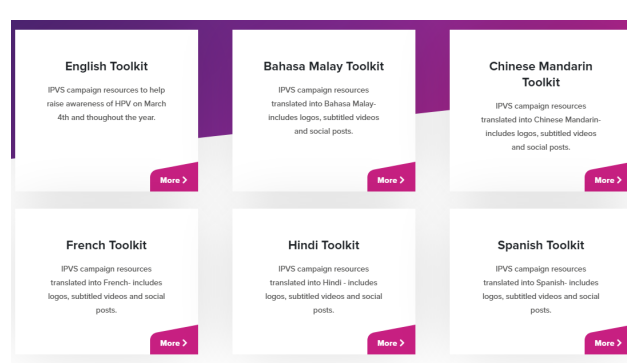
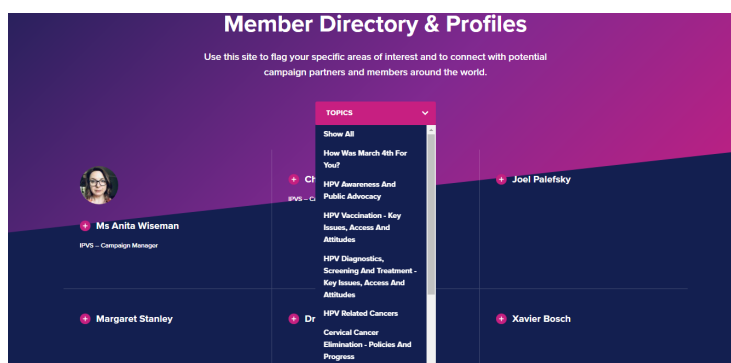
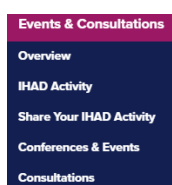
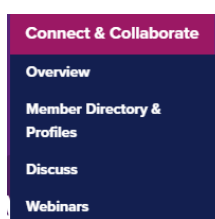
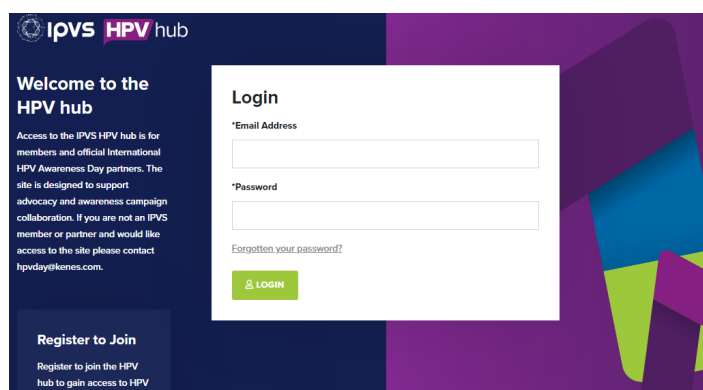
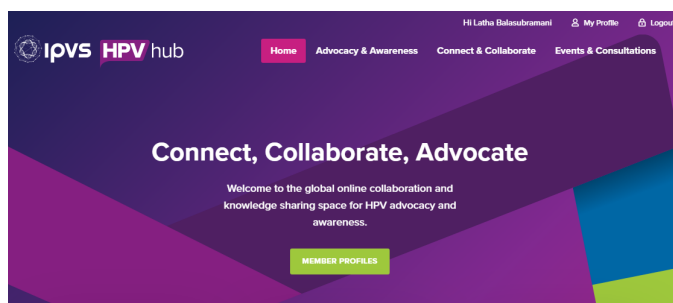
beings as a single unit that is influenced by the combination of elements in our systems which in turn are influenced by diet, lifestyle and environment. An imbalance in the elements causes the srotas (the channels in the body that transport fluids and energy) to become blocked, which leads to disease. One of the primary methods of treating and preventing illness is through cleansing the srotas. It is through the srotas that the Dhatus (the cells of the body) get nourished. The dhatus make up the structure of the body and should the dhatus be deprived of nourishment, disease results. Ayurveda emphasises that that any treatment will not have a permanent effect if the individual does not follow an appropriate diet and lifestyle suitable to his/her dosha imbalance.



WATCH THIS SPACE..



AOGIN India has signed an MoU with IPVS which allows us to access their resources. All members can access this.



Guess Where?

1



2



3



4



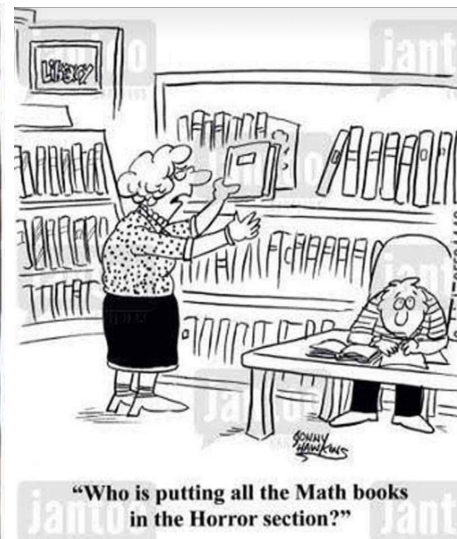
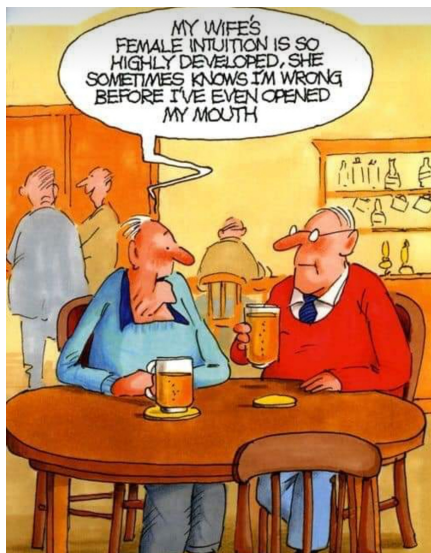
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6



IN A LIGHTER VEIN



CLINICAL PEARL ANSWERS

1: When HPV test is used as a primary screening test, we have several options for triage or treatment.

- Screen and treat option: Screen with an HPV test, treat all HPV positive women (with ablation or excision (if not eligible for ablation)
- Screen, triage and treat: Screen with an HPV test and triage can be done with VIA or cytology or HPV genotyping. Treatment or referral to colposcopy is offered if the second test also shows any abnormality.
- Screen, see and treat: Screen with an HPV test, colposcopy for all HPV positives and depending upon the colposcopic abnormality, biopsy and ablative treatment during the same visit or excisional treatment preferably during the same visit or during the next visit
- This patient, aged 30, had a positive HPV DNA test. She was referred for colposcopy. The colposcopy was suggestive of a low-grade lesion (6/7 O' clock region and may be a small lesion at 11 O' clock), she underwent a biopsy and treatment with thermal ablation during the same sitting. The biopsy report that was received at a later date showed CIN2.
- She came for a follow-up visit after one year and her HPV DNA test report was negative.

2: You can follow either of the above-mentioned options but I prefer screen, see and treat option or screen and treat option (when colposcopy is not available). It minimises loss-to-follow up.

- This patient aged 40 years had a positive HPV DNA test report. Ratio of RLU/ PC was 1736. Colposcopy was normal but she was treated with thermal ablation (since her SCJ is seen in its entirety, it is a Type 1 TZ) on the same day of the colposcopy visit. Cervix biopsy was not taken since her VIA was negative and also there wasn't any abnormality on colposcopy.
- She came for a follow-up visit after one year and her HPV DNA test report was negative.

GUESS WHERE?- ANSWERS

1. Hanging gardens of babylon
2. Keukenhof gardens, Netherlands
3. Royal Botanical Garden, Kew, London(UK)
4. Villa d' Este (Italy)
5. The Gardens of Cosmic Speculation, Scotland
6. Shalimar Bagh, J&K, India

SHARE YOUR ACTIVITIES

Cama and Albless Hospital, Mumbai- Dr. Usha Saraiya & Team

Cytology Clinic conducted the annual screening programme from 6th to 13th March 2021 despite the difficulties due to Covid. Posters were put up and daily lectures were taken by Staff Nurses about Cancer Awareness. Over 200 women had Pap Smear and Breast palpation done. 39 smears were received from practicing doctors which were screened free. Photos are being forwarded.



Restarting of screening programs by Public Health Research Institute of India, Mysore after the pandemic- Dr. Vijaya Srinivas & Team

Public Health Research Institute of India (PHRII) is a charitable organization and a research institute working towards the improvement of health of women in Mysore district.

One of our main ongoing project is prevention of cervical cancer through awareness creation, educational activities and by conducting screening camps. Most of our activities had been restricted due to the covid pandemic. From the past three months, we have restarted our work by calling t community women with whom we have developed rapport, ASHAs, Anganwadi workers for follow up as well as inviting them to our static clinic for screening.

Protection kits consisting of 100 pairs of Gloves, Face shields, and good quality masks, against covid 19 were distributed to ASHAs as a supportive measures to work in the community.

The team visited the community with all the precautionary measures for awareness creation for cervical cancer prevention along with covid awareness. During these awareness program more focus towards HPV vaccination for young girls with two dose schedule was given. A limited cervical cancer screening program was restarted at our organization. We also joined with Mysore Obstetrics and Gynecology society (MOGS) to restart our cervical cancer screening camps with necessary precautionary measures. I was invited to give a talk through Zoom platform on "Cervical cancer with different screening methods" at the International Conference for Public Health, organized by Navrachna University, Vadodara in Collaboration with University of Arizona, USA. We as a team of twenty members attended webinars and virtual conferences related to Global health issues throughout the pandemic.



Public awareness activity, Delhi- Prof. Neerja Bhatla & Team

A public awareness and screening for cervical and breast cancer was organized by Department of Obstetrics and Gynecology All India Institute of Medical Sciences New Delhi at Raj Kumari Amrit Kaur OPD and National Cancer Institute (NCI) Jhajjar on the occasion of International women's day from 5th to 8th March 2021.

During the drive the women aged 30-60 years, attending OPD for any other gynecological complaints were gathered and an awareness session focused on breast and cervical cancer risk factors, symptoms, importance of screening and prevention was organized prior to actual screening. During the interactive session following aspects were emphasized –

- Creating cervical cancer awareness through continuous education
- Introducing screening to attendees in the local language
- Explained the benefits of treatment of thus identified abnormalities.
- Encouraged to spread a word of this knowledge to 10 other women in their circles

Total 229 women (165 HPV tests, 60 cytology, 4 VIA) attended this drive and were benefitted. All screen positive women are being followed up and recalled for colposcopy &/or biopsy and treated as per indication. .





Screening and awareness camp, Coimbatore- Dr. Latha Balasubramani & Team

An awareness and screening camp for cervical and breast cancer was organized by GKNM Hospital and COGS(Covai OG Society) recognising International women's day on 5th March 2021.



Cancer awareness during Covid-19 pandemic

Cancer Institute(WIA), Chennai- Dr. Malliga & Team

Preventable cancers like cervix cancer and tobacco related cancers contribute to 60% of the cancer burden in India. Lack of awareness among population and the stigma that is still attached to the disease and to visiting cancer centers are found to be the major barriers in implementing a successful cancer control program. Accessibility to cancer care is a major concern in our country. It is in this context that the Cancer Institute (WIA) has been developing its preventive oncology initiatives. The Department of Preventive Oncology at the Institute, assists in capacity building, resource identification and allocation and establishing collaborations with local stake holders in setting up satellite cancer screening centers across the State. During the past 5 years, satellite screening centers have been set up at Villupuram, Thiruvallur, Pudukkottai, Thiruvannamalai in collaboration with the State government.

During the covid -19 pandemic with stringent safety precautions, World Cancer Day on 4 Feb 2021 and International Women's Day on 8 Mar 2021 were observed by organising cancer awareness programs.



Pudukkottai Multipurpose Social Service Society- 100 participants



Pallikondapattu in Thiruvannamalai District - 57 Participants



Chennai Medavakkam SUEB -55 participants



Thiruvannamalai Municipality sanitary workers-133 participants



Gummidipoondi ECL Company-25 participants

ACKNOWLEDGEMENT

My sincere thanks to my research assistant Rithu Pushparaj, who has worked really hard to put this newsletter together.

