

Human papilloma virus infection in women from the region of Dakar, Senegal

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Abstract

Introduction: Cervical cancer is the most frequent cancer among women in Senegal. However, there are few data concerning the human papilloma virus (HPV) types inducing neoplasia and cervical cancers and their prevalence in the general population of Senegal.

Aims: The aim of this study is to determine the prevalence of human papilloma virus (HPV) infection in Senegalese women of Dakar aged from 18 years and older.

Materials & Methods: A study was performed on 498 cervix samples collected from healthy women aged 18 and older in Dakar. 438 other samples were collected from three other regions, Thiès, Saint Louis and Louga. The samples were screened for 21 human papilloma virus (HPV) genotypes using an human papilloma virus (HPV) type-specific E7 PCR bead-based multiplex genotyping assay (TS-MPG) which is a laboratory-developed method for the detection of human papilloma virus (HPV).

Results: The prevalence for pHR/HR-HPV in the region of Dakar was 20.68%. Human papilloma virus (HPV) 52 (3.21%) was the most prevalent HPV type, followed by HPV 16 (3.01%) and HPV 31 (3.01%). In the regions of Thiès, Louga and Saint Louis, the prevalence for pHR/HR-HPV was 29.19%, 23.15% and 20%, respectively.

Conclusion: The study revealed the specificity of the high risk human papilloma virus (HPV) (HR-HPV) prevalence in Dakar and other regions of Senegal. The patterns differs from the one observed in the other regions of the world and raise the issue of the development of vaccination program in the country. Such a program should take into account the real human papilloma virus (HPV) prevalence for an effective protection of human papilloma virus (HPV) associated diseases.

Introduction

Cervical cancer is that the second commonest cancer for ladies living in developing regions, and it's the second leading explanation for cancer-related deaths in Sub-Saharan Africa [1]. The link between cervical cancer and Human Papillomavirus (HPV) has been well established, with HPV being documented because the explanation for most cases of cervical somatic cell dysplasia and cervical cancer [2], [3] HPV is that the commonest sexually transmitted virus worldwide, and HPV infection among all women is highest in Sub-Saharan Africa [4], [5]. this is often most notable in Eastern and Western Africa, specifically [6]. Many genotypes of HPV exist and that they are classified based upon their relationship with cervical cancer into High Risk (HR) (HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, and 59), possible or probable high-risk high-risk (pHR) (26, 53, 66, 67, 68, 70, 73, and 82), and low-risk

(LR) (6, 11, 42, 43, and 44) genotype groups [7]. However, it's well recognized that HPV 16 and 18 are related to approximately two thirds of all invasive cervical carcinomas [2], [7], [8]. a serious clinical risk factor contributing to infection with any HPV genotype may be a higher number of lifetime sexual partners [5], [9]. it's been established also that this risk factor facilitates co-infection with multiple sorts of HPV, other sexual transmitted infection (STI) agents [9], [10], [11] including co-infection with Human Immunodeficiency Virus (HIV) [12]. In Senegal, a rustic located in West Africa, cervical cancer is that the most often occurring sort of cancer, with estimated incidence and mortality rates of 37.8 and 29 per 100,000 women-year, respectively [13]. Several studies in Senegalese women have shown that HIV infection decreased HPV clearance [14] was related to an increased risk of high grade or invasive cervical cancer ([15] and was related to harboring multiple infections of HPV-16 [16]. However, no data has yet been published describing HPV status in Female Sex Workers (FSW) Laboratoire of Bacteriologist for ladies older than 21 years named registered FSW. The registration status refers as to if or not the individual has skilled the processes of legally noting their work as a seller of sex, including all governmentally-required sexual health screenings. This process is legally required by all FSWs in Senegal, though not all women prefer to register [17], [18]. This key population is very suffering from HIV at rates nearly 10 times above that reported among women within the general population [19], [20], [21], and is therefore likely to be disproportionately suffering from HPV also. The goal of this study was to document the epidemiology of HPV in FSW, to explain the HPV genotypes, and to clarify the association of HIV and HPV in Senegalese FSW.

Biography

Dr. El Hadji Seydou Mbaye was born in 1978 in Kaolack a region of Senegal. During 2008-2013, he earned his PhD in Biology and Human Pathologies with the collaboration of the International Agency for Research on Cancer (IARC) /WHO, Lyon (France); 2006-2007 : Master of Life and Health, Specialty Biology of microorganisms, Virology in Louis Pasteur University of Strasbourg (France); 2005-2006 : Master of Life and Health, option of Immuno-physiopathology in Louis Pasteur University of Strasbourg (France); 2004-2005 : License of Biochemistry in Louis Pasteur University of Strasbourg (France); 2002-2004 : General Degree in Sciences and Technologies in University of METZ (France). He was certified by the Federation International of

Gynecology Obstetrics (FIGO), the Accreditation Council of Oncology in Europe (ACOE, www.acoe.be), the Institute Catalan of Oncology (ICO) for cervical cancer prevention (Grade 10/10) in support of Continuing Medical Education for physicians. These credits are also recognized as Physician's Recognition Award (AMA PRA Category 1 credits) by the American Medical Association. He was certified, by the United Nations for Basic Notion of Security on the Ground-Protection, Health and behavior, by the International Agency for Research on Cancer (IARC)/World Health Organization, Lyon (France) for Safety Certificate. He has published 1 Book with a style of philosophical story. Author of the world program against cancer in low and middle incomes countries, he is lead author (first listed) of more than 90 peer-reviewed research articles published in reputed journals. He is Review Board Member of Acta Scientific Medical Sciences (ASMS), Acta Scientific Microbiology (ASMI), Research and Reviews on Healthcare: Open Access Journal (RRHOAJ), and Editorial Board Member of the **Journal of Medicine and Medical Sciences (JMMS)**, Modern Journal of Medicine and Biology (MJMB), EC Microbiology, International Journal of Clinical Virology (IJCV), Acta Scientific Cancer Biology (ASCB), BioMed Research Journal (BMRJ), Journal of Medicine and Biology (JMB), Biomedical Research, International journal of vaccines and technologies (IJVT), Journal of Surgery, Operative Techniques and Anaesthesia (JSOTA), Current Research in

Bioengineering & Biomedical Sciences (CRBBS), Journal of Women's Health, Gynecology & Obstetrics (JWHGO), Trauma & Emergency Care journal, **Journal of Current Medical Research and Opinion (JCMRO)**, International Journal of Clinical Pharmacology & Pharmacotherapy (IJCPP), Journal of Clinical Microbiology and Infectious Diseases (JCMID), **Journal of Retro Virology and Anti Retrovirals (JRVAV)**, Journal of Anti-virals and Anti-retrovirals, Research and Reports in Immunology (RRI), Journal of Medical Case Reports and Reviews (**JMCRR**), Pyrex Journal of Biomedical Research (PJBR), Advances in Immunology and Microbiology (ADIM), **Current Scientific Research in Biomedical Sciences (CSRBS)**, Journal of Clinical & Experimental Immunology (JCEI), Journal of AIDS and HIV Treatment, Edelweiss Journal of AIDS, Journal of HIV and AIDS, Journal of HIV and AIDS Research, Associate Editors for Journal of Bacteriology & Mycology: Open Access (JBMOA), **Pediatrics & Neonatal Biology Open Access (PNBOA)**, **Immune & Autoimmune Disorders Journal (IADJ)**, Annals of Advanced **Biomedical Sciences (AABSc)** and associate membership of the World Society for Virology, and also, member of BCNet International Working Group, International Agency for Research on Cancer (IARC)/World Health Organization (WHO). Dr HADJI SEYDOU MBAYE has formed for free, more than 250 healthcare professionals for the techniques of cervical cancer screening in Senegal. He has appeared on local media, 2S TV, Mbour TV and Leeral.net.

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