

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Kolia-Diafouka, P; Foulongne, V; Boulle, N; Ngou, J; Kelly, H; Sawadogo, B; Delany-Moretlwe, S; Mayaud, P; Segondy, M; HARP Study Group, ; , COLLABORATORS; Chikandiwa, A; Omar, T; Michelow, P; Goumbri-Lompo, O; Meda, N; Gilham, C; Weiss, H; Doutre, S; Costes, V; Didelot, MN; Nagot, N (2016) Detection of four human polyomaviruses (MCPyV, HPyV6, HPyV7 and TSPyV) in cervical specimens from HIV-infected and HIV-uninfected women. Sexually transmitted infections. ISSN 1368-4973 DOI: <https://doi.org/10.1136/sextrans-2015-052430>

Downloaded from: <http://researchonline.lshtm.ac.uk/2535760/>

DOI: [10.1136/sextrans-2015-052430](https://doi.org/10.1136/sextrans-2015-052430)

Usage Guidelines

Please refer to usage guidelines at <http://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: <http://creativecommons.org/licenses/by-nc-nd/2.5/>

Category: Short report**Title:**

Detection of four human polyomaviruses (MCPyV, HPyV6, HPyV7 and TSPyV) in cervical specimens from HIV-infected and HIV-uninfected women

Authors:

Pratt Kolia-Diafouka,¹ Vincent Foulongne,^{1,2} Nathalie Boule,^{1,2} Jean Ngou,¹ Helen Kelly,³ Bernard Sawadogo,⁴ Sinead Delany-Moretlwe,⁵ Philippe Mayaud,^{3,5} Michel Segondy M,^{1,2} on behalf of the HARP Study Group

Affiliations:

¹ *INSERM U.1058, Université de Montpellier, Montpellier, France*

² *Pôle Biologie-Pathologie, Centre Hospitalier Universitaire (CHU), Montpellier, France*

³ *London School of Hygiene and Tropical Medicine, London, UK*

⁴ *Centre de Recherche Internationale pour la Santé (CRIS), Université de Ouagadougou, Ouagadougou, Burkina Faso*

⁵ *Wits Reproductive Health & HIV Institute, School of Clinical Medicine, University of the Witwatersrand, Johannesburg, South Africa*

Word count: Abstract 193; text 943; 1 table

Corresponding author:

M. Segondy, Pôle Biologie-Pathologie, Laboratoire de Virologie, Hôpital Saint-Eloi; 34980 Montpellier Cedex 05, France.

Phone: +33 467 337 127 – Fax: +33 467 337 793

Email: m-segondy@chu-montpellier.fr

Abstract**Objectives**

To investigate the presence of recently discovered human polyomaviruses in cervical specimens collected from African and French women, in relation to HIV serostatus, high-risk human papillomavirus infection (HR-HPV), and cervical disease.

Methods

Cervical specimens were collected from 140 HIV-1-seropositive African women and 50 HIV-seronegative French women. Presence of Merkel cell polyomavirus (MCPyV), human polyomavirus 6 (HPyV6), human polyomavirus 7 (HPyV7) and Trichodysplasia spinulosa-associated polyomavirus (TSPyV) was detected by real-time PCR, and presence of HR-HPV DNA by Hybrid Capture 2 assay with subsequent HPV genotyping using the INNO-LiPA HPV Genotyping Extra assay. Cervical biopsies were analysed by histopathology.

Results

The detection rates were 55.3%, 3.2%, 2.1% and 0% for MCPyV, HPyV6, HPyV7 and TSPyV, respectively, with no significant difference by population. The MCPyV viral load ranged from 14 to 210 DNA copies/ 10^6 cells (median, 80 DNA copies/ 10^6 cells). There was no association between detection of human polyomaviruses in cervical specimens and geographic origin/HIV serostatus, HR-HPV co-infection or precancerous cervical lesions.

Conclusions

These observations argue against a possible role of MCPyV as a cofactor in HPV-induced carcinogenesis. MCPyV and, to a lesser extent, HPyV6 and HPyV7 might belong to the female genital tract microbiota.