



Centre universitaire
de santé McGill
Institut de recherche



McGill University
Health Centre
Research Institute

CONFERENCE
CAHR
2021
VIRTUAL
May 2021

CONGRÈS DE
L'ACRV
2021
VIRTUEL
mai 2021

#CAHR2021
www.cahr-acrv.ca

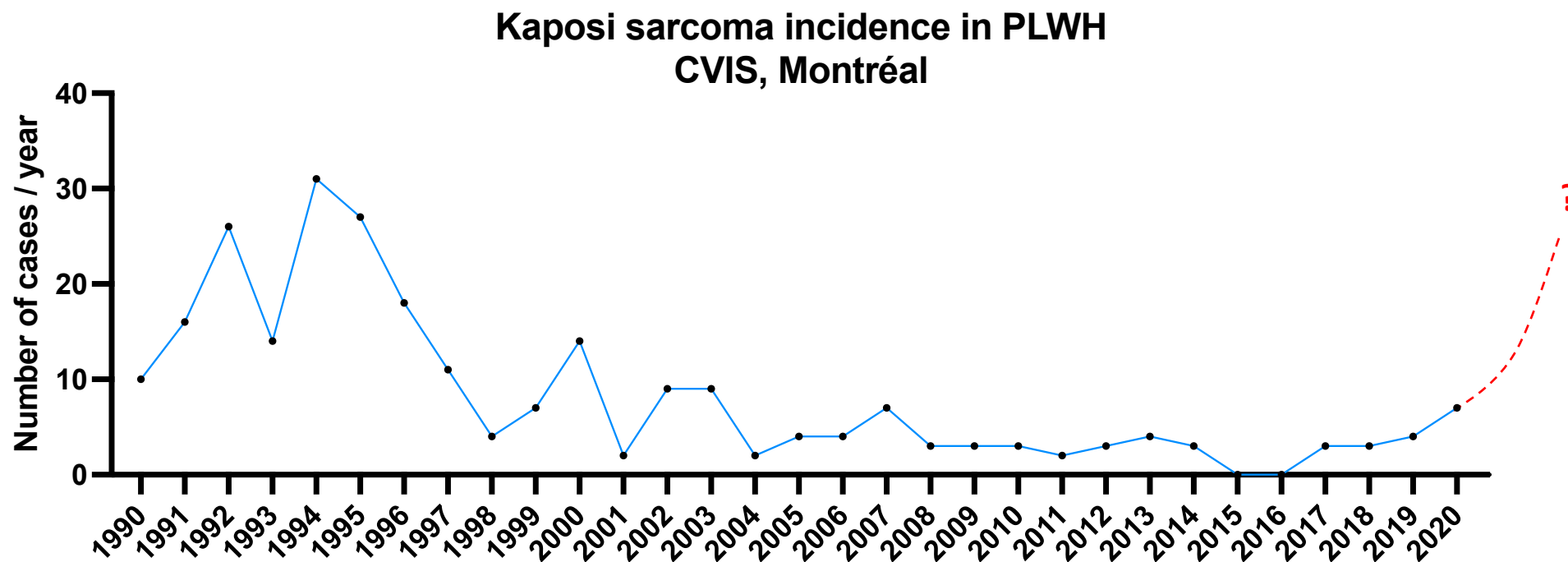
Kaposi sarcoma in ART-treated people living with HIV: A new form to be compared with classic Kaposi in HIV-uninfected people



Dr Léna Royston, MD, PhD

Postdoctoral fellow
Dr Jean-Pierre Routy's lab
Montréal, Canada

Background: KS incidence in PLWH



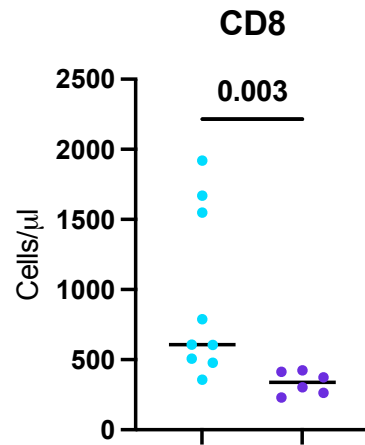
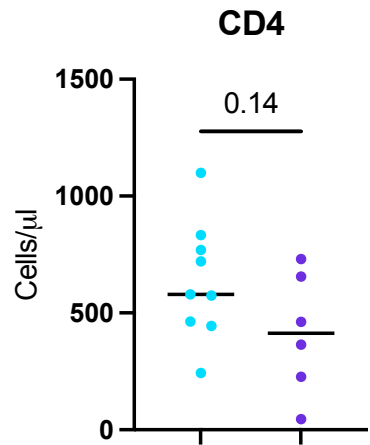
- Incidence of HHV8-induced Kaposi sarcoma (KS) in PLWH dramatically decreased with ART.
- However, reemergence of KS in ART-treated PLWH with restored CD4 T-cells and HIV control has been increasingly reported.
- Reported cases of KS in ART-treated PLWH: mostly middle-age men, with cutaneous lesions similar to classic KS lesions arising in elderly men¹.



Hypothesis: HIV-induced immunosenescence is associated with a progressive decrease in HHV-8 immune control.

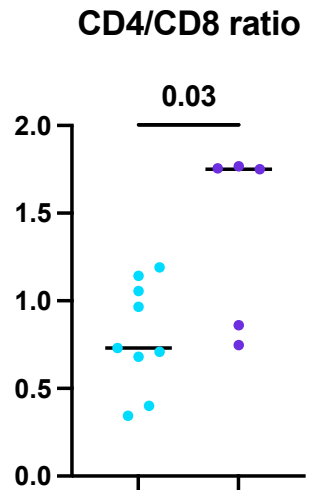
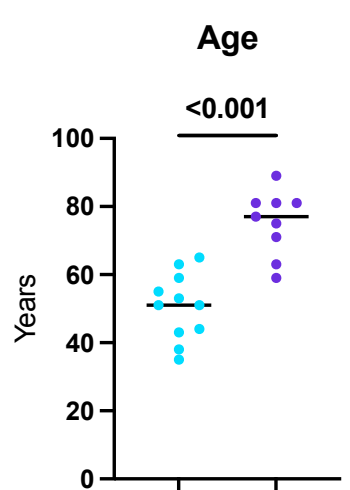
¹. Royston et al., *AIDS*, under review.

Clinical comparison: KS in ART-treated PLWH vs “classic KS”



Our ongoing prospective cohort:

- 11 active KS in ART-treated PLWH with undetectable HIV VL
- 8 classic KS in HIV-uninfected people



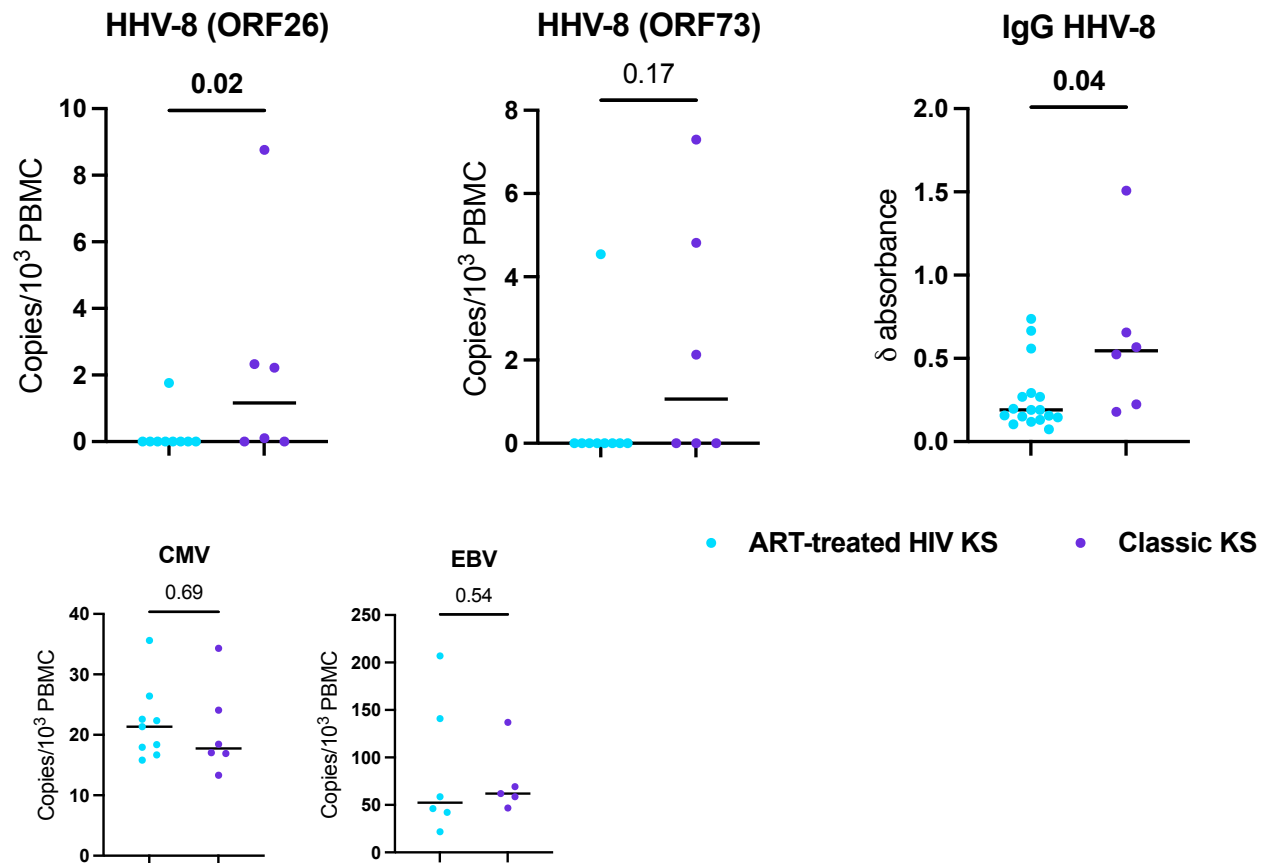
Compared to classic KS, ART-treated PLWH with KS exhibit:

- A trend for increased CD4 T-cell counts
- Increased CD8 T-cell counts
- Decreased CD4/CD8 ratio
- Younger age

• ART-treated HIV KS

• Classical KS

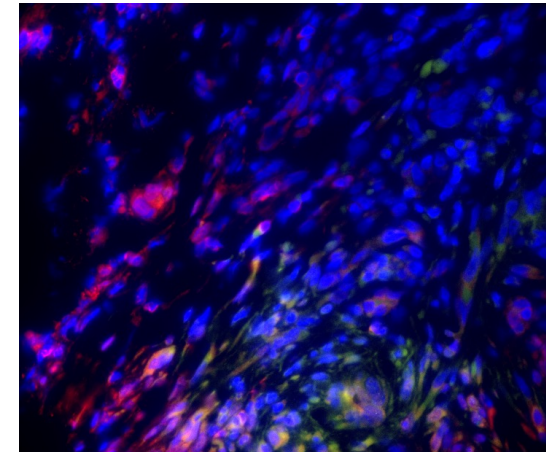
Viral detection in PBMCs and tissue



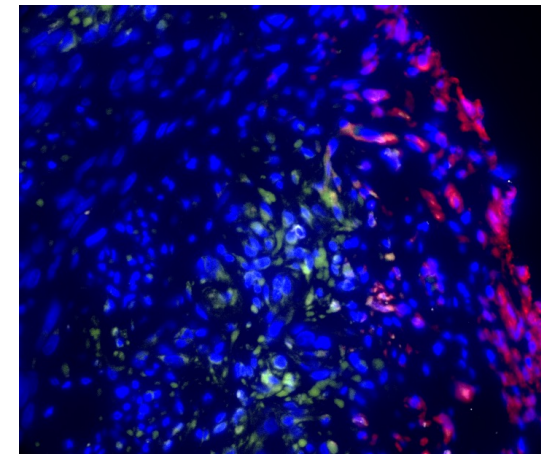
Compared to classic KS, ART-treated PLWH with KS exhibit:

- Lower detection of HHV-8 in PBMCs
- Lower anti-HHV-8 IgGs in plasma
- Similar detection of CMV/EBV in PBMCs

Biopsy of a KS lesion in a ART-treated man living with HIV



Green: HHV-8
Pink: CD3
Red: CD8



Results:

- Lack of colocalization of T-cells and infected cells

Conclusions:

- KS in ART-treated PLWH occurs at younger age and is associated with a higher CD8 T-cell count and a lower CD4/CD8 ratio compared to classic KS,
- HHV-8 viral control differs between classic KS and KS in ART-treated PLWH

Next steps:

- Assessing the influence of aging, inflammation, microbial translocation and host/viral factors in KS pathogenesis
- Ongoing patient recruitment

Acknowledgments



Centre universitaire de santé McGill
McGill University Health Centre

Team Jean-Pierre Routy

Dr Jean-Pierre Routy
Dr Stéphane Isnard
John Lin
Brandon Fombuena
Josée Girouard
Angie Massicotte
Cezar Iovi

CVIS

Drs C Costiniuk, B Lebouché,
A de Pokomandy, J Szabo, M
Teltscher, J Cox, M Klein, N
Kronfli, J Falutz, E
Beauchamp, LP Haraoui,
Nurses and staff

lena.royston@mail.mcgill.ca

All study participants !



CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

Fonds de recherche
Santé

Québec



HUG
Hôpitaux
Universitaires
Genève