Human papillomavirus-independent cervical cancer
Andreína Fernandes, David Viveros-Carreño, Jorge Hoegl, Maira Ávila, René Pareja.

Cervical cancer
Squamous cell carcinoma
- HPV-associated.
- HPV-independent.
Cervical adenocarcinoma
- HPV-associated.
- HPV-independent.
(WHO Female Genital Tumors classification, 2020).

Objective:
To provide an overview of HPV-independent cervical cancer, evaluating diagnostic techniques, molecular profiles, and clinical outcomes.

HPV-independent cervical cancer
-↓ proliferative activity.
-↓ p53 immunostaining.
-↓ expression of CDK inhibitors proteins.
-Alterations in PTEN, p53, KRAS, CTNNB1, ARID1A and ARID5B.

-Hit and run theory:
HIT: Viral infection
RUN: Loss of viral genome

Genetic instability | Transitional state | Loss of viral dependency
Time

-Associated with adenocarcinomas and squamous subtypes.
-Lymph node involvement in early stages.
-Distant metastasis.
-Worse oncological outcomes.

-Potentially a biologically distinct subgroup.
-Possible low responses to standard treatment.
-New therapeutic targets.
-Future research: to report on clinical outcomes, to evaluate the overall response rates to specific treatments and to consider new biomarkers.
Human papillomavirus-independent cervical cancer

Andréina Fernandes, David Viveros-Carreño, Jorge Hoegl, Maira Ávila, René Pareja.

Objective
To provide an overview of HPV-independent cervical cancer, evaluating diagnostic techniques, molecular profiles, and clinical outcomes.

Cervical cancer

Squamous cell carcinoma
- HPV-associated.
- HPV-independent.

Cervical adenocarcinoma
- HPV-associated.
- HPV-independent.

(WHO Female Genital Tumors classification, 2020).

HPV-independent cervical cancer

-↓ proliferative activity
-↓p53 immunostaining
-↓ expression of CDK inhibitors proteins
-Alterations in PTEN, p53, KRAS, CTNNB1, ARID1A and ARIDSB

-Hit and run theory:

HIT: Viral infection

RUN: Loss of viral genome

Genetic instability
Transitional state
Loss of viral dependency

-Time

-Associated with adenocarcinomas and squamous subtypes
-Lymph node involvement in early stages
-Distant metastasis
-Worse oncological outcomes

-Potentially a biologically distinct subgroup.
-Possible low responses to standard treatment.
-New therapeutic targets.
-Future research focus

*Report on clinical outcomes
*Evaluate the overall response rates to specific treatments
*Consider new biomarkers