

SPECIAL ARTICLE

Secondary prevention of anal cancer: clinical research pilot project

Prevención secundaria del cáncer anal: proyecto piloto de investigación clínica

Carlos Dolz¹ , Ana Forteza² , Montserrat Caso³, Gabriel Ferret³ , Marita Frau³, Antonietta di Miscia³, Javier Cortés² 

1. Gastroenterology Assistance Network Juaneda Clinic, Palma

2. Dr. Cortés Cytology Laboratory, Palma

3. Miramar Polyclinic Gynecology, Palma

Corresponding author

Javier Cortés

E-mail: cortes@oceas.es

Received: 29 - VII - 2023

Accepted: 25 - VIII - 2023

doi: 10.3306/AJHS.2023.38.06.157

Abstract

A detailed protocol for the secondary prevention of anal cancer, a causally dependent papilloma virus cancer that presents a rate of increase in registries, is presented in detail. Both circumstances make early diagnosis feasible and necessary, in a multidisciplinary structure that is presented here.

Key words: Prevención, cáncer, anal.

Resumen

Se presenta en detalle un protocolo de prevención secundaria del cáncer anal, un cáncer virus papiloma causal dependiente y que presenta una tasa de incremento en los registros. Ambas circunstancias hacen factible y necesario su diagnóstico precoz, en una estructura multidisciplinaria que aquí se presenta.

Palabras clave: Prevención, cáncer, anal.

Cite as: Dolz C, Forteza A, Caso M, Ferret G, Frau M, di Miscia A, et al. Secondary prevention of anal cancer: clinical research pilot Project. *Academic Journal of Health Sciences* 2023; 38 (6):157-8 doi: 10.3306/AJHS.2023.38.06.157

Anal cancer is causally related to human papillomavirus (HPV) infection, which is detected in the majority of anal cancers: HPV can rightly be said to be the most common cause of anal cancer (AC)¹, perhaps its necessary cause, as already established for cervical cancer². The CLEOPATRE study³ consistently demonstrated that HPV infection before the age of 30 is mostly transitory, with 90% regression after one year given immune competence: being HPV + is a risk marker for precancerous or cancerous after the age of 30. For this reason, its incorporation into cervical cancer screening programs as a primary technique is carried out from this age, with cytology in the conduct selection of positive cases⁴.

We also know that HPV infection is regional, although at a given moment it clinically manifests itself in one area of the zone: in a previous study, we reported that one fifth of women with HPV in the lower genital tract –cervix or vagina– presented also anal HPV, without the practice of anal sex being a necessary condition for it⁵.

We do not have population records of AC, but the latest available estimate shows a consolidated trend of an

increase of 2% per year in recent decades⁶. The majority of ACs are squamous, glandular and melanomas are anecdotal⁷.

The natural history of AC seems very similar to that of cervical cancer (CC), with previous low-grade (AIN1) or high-grade (AIN2/3) intraepithelial neoplasias in the histopathological process leading to AC. Both lesions are identifiable by cytology by anal brushing, with evidence that clearly supports their use⁸. It is a simple and easy technique to perform, with little discomfort and no complications for the patient, and does not require special training on the part of the clinician, with appreciable results: 90% sensitivity (95% confidence interval (CI): 76 – 96%) and a specificity of 33% (95% CI: 20 – 49%) for the diagnosis of a high-grade AIN⁹. Since HPV determination has been incorporated into CC preventive protocols, a personal opinion was requested from Dr. Joel Palefsky, professor at the University of California, San Francisco, United States, leading expert in AC prevention –763 publications in journals indexed–, which advised the use⁹ of the determination by validated technique¹⁰ of HPV, and recommending focusing the

preventive procedure on the population at risk of AC: women with HPV lesion or carriers of HPV in the cervix or vagina and immunodeficiency virus-positive homosexual men. Following this criterion, the American Cancer Society¹¹ does not recommend routine screening tests for AC in all people, applying them only in the two previously detailed subgroups.

In line with all these data and recommendations, this proposal for a pilot research experience will be developed according to the following protocol:

:

- Target population: Women between upper 30 years of age carriers of HPV in the lower genital tract or with HPV-caused cervico-vaginal lesion, with special attention to HPV16 carriers.
- They will undergo anal brushing for HPV determination, which will be performed with the Cobas[®]4800 platform, one of the seven validated techniques¹².
- In cases with a positive HPV determination, an anal cytology will be taken.
- Cases with positive cytology to some degree (low or high grade lesion, cancer) will undergo anoscopy, with a biopsy of abnormal areas.

- The cases with HPV positivity and cytology without alterations will be cited in one year for a repeat of the procedure, taking for HPV, cytology of the positive cases and anoscopy after the cases with cytological alteration.

The primary objective of this study is to determine the incidence of anal pre-neoplastic or neoplastic lesions in the population at risk studied and, secondarily, to establish the frequency of anal HPV infection in these women.

Thanks to Professors Mary Pointen and Richard Hillman, from the University of New South Wales, Australia, leaders in the secondary prevention of anal cancer, for their help in developing the protocol.

.

Conflict of Interest

CD declares that it has a "professional medical and scientific advice" agreement with Boston Scientific since 2018. Other authors, no conflicts.

References

1. Available at <https://www.mayoclinic.org/es-es/diseases-conditions/anal-cancer/symptoms-causes/syc-20354140> Access 10.06.23.
2. Available at <https://www.cancer.gov/espanol/tipos/cuello-uterino/causas-factores-riesgos-prevencion> Access 10.06.23.
3. Castellsagué X, Iftner T, Roura E, Vidart JA, Kjaer SK, Bosch FX et al.: Prevalence and genotype distribution of human papillomavirus infection of the cervix in Spain: the CLEOPATRE study. *J Med Virol.* 2012; 84: 947-56.
4. Available at <https://www.sanidad.gob.es/profesionales/saludPublica/prevPromocion/Cribado/CribadoCancerCervix.htm> Access 12.06.23.
5. Cortés J.: Carga de enfermedad asociada a la infección por virus de papiloma humano (VPH) en la población femenina española. XX Congreso Anual de la Asociación Española de Patología Cervical y Colposcopia. Madrid, Noviembre 2008
6. Available at <https://www.contraelcancer.es/es/todo-sobre-cancer/tipos-cancer/cancer-ano#:~:text=Se%20ha%20detectado%20un%20aumento,es%20de%20un%202%25%20anual.&text=No%20se%20tienen%20registros%20en%20poblaci%C3%B3n%20espa%C3%B1ola>. Access 13.06.23.
7. Valvo F, Ciurlia E, Avuzzi B, Doci R, Ducreux M, Roelofsen F et al.: Cancer of the anal región. *Crit Rev Oncol Hematol.* 2019; 135: 115-27.
8. Burgos J, Curran A.: Diagnóstico precoz de las neoplasias intraepiteliales anales asociadas con el virus del papiloma humano ¿Cuál es la mejor estrategia? *Enferm Infecci Microbiol Clin.* 2016; 34: 397-9.
9. Palefsky J.: Personal communication. April 2023.
10. Available at <https://www.fda.gov/drugs/development-approval-process-drugs/drug-approvals-and-databases> Access 15.06.2023.
11. Available at <https://www.cancer.org/es/saludable/causas-del-cancer/agentes-infecciosos/vph/vph-y-cancer.html> Access 15.06.23.
12. Saville M, Sultana F, Malloy MJ, Valentis LS, Caruana M, Olp EL et al.: Clinical Validation of the cobas HPV Test on the cobas 6800 System for the Purpose of Cervical Screening. *J Clin Microbiol.* 2019; 57(2): e01239-18.