Anal cancer risk and the role of protease inhibitors: a nested case-control study within the ANRS CO4-FHHD cohort

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Background
Several cohort studies have shown an increased risk of anal cancer associated with protease inhibitor (PI) use,2–6,8,9. However, the analyses were often not adjusted for CD4 nadir, while it is associated both with the risk of anal cancer and ARV treatment initiated with a PI-based regimen at treatment initiation, nor adjusted for the whole ARV treatment history.

Methods

Studied Population
65956 PLHIV (People Living with HIV) from ANRS CO4-FHHD,4 French Hospital Database on HIV (164 anal cancer/65792 without anal cancer), followed up up between 1997-2008, with pVL (plasma HIV RNA) measurement and CD4 cell count

Analysis

Conditional logistic regression for anal cancer risk

Results

Table 1. Characteristics of cases and controls PLHIV

Table 2. Conditional logistic regression for anal cancer risk

Conclusions

Our study analysed the risk of anal cancer in PLWH according to cumulative duration of ARV use.

We found that the effect size associated with PI use was significantly associated with the risk of anal cancer in univariable analysis, but when adjusting for NRTI, it was reduced and no longer significant when further adjustment for the CD4 nadir was added.

Our study shows the importance of taking into account complete ARV exposure as well as the immune health memory of PLWH when evaluating the risk of developing an anal cancer.

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