



Correspondence

Letter to the editor: “A population-based study of cervical cytology findings and human papillomavirus infection in a suburban area of Thailand”



Dear Editor,

In the latest edition of *Gynecologic Oncology Reports*, we read a relevant article “A population-based study of cervical cytology findings and human papillomavirus infection in a suburban area of Thailand” (Phoolcharoen et al., 2017). We agree with the authors, because to know the distribution of HPV's genotype in Thailand population is important to validate the future use of HPV's vaccines and to have a better understanding of the burden of the disease in that population so the methods of prevention in cervical cancer can be efficiently administered to the population at risk.

Nevertheless, we would like to mention some methodological aspects that we consider are not clear enough. The relationship between selection criteria and methodology is unclear. This is because is mentioned that women with a previous diagnosis of cervical injury will be excluded, however, is also suggested that the prevalence of cervical lesions will be sought. On the other hand, it is assumed erroneously that women with a previous diagnosis will continue to have the same diagnosis; however, it is known that cervical lesions in women under 30 years usually regress (Sasieni et al., 2009; Arbyn et al., 2010). Another important observation is to know why was Bethesda injury Classification Method of 2001 was chosen for this article, considering that it was developed during 2017 and the most recent Bethesda classification, that could have been used, corresponds to year 2014 (Nayar and Wilbur, 2015).

Although the authors have carried out a census of the study area, they had to calculate the minimum sample size to estimate the HPV prevalence according to the distribution of the main HPV's genotypes in the population according to previous studies in the region. In this way, the necessary efforts would have been made to reach the minimum sample size required. Due to this, their confidence intervals were width for a population-based study, as showed in the prevalence of HR-HPV in CIN2–3 or AIS or carcinoma with intervals of 2.2 to 15.3 and in the prevalence of HR-HPV in all women with invasive cervical cancer and women with CIN 2–3 with intervals of 1.6 to 15.2 for HR-HPV. Similarly, the confidence intervals were width for the estimates of the odds ratios (OR) presented in the study.

On the other hand, there is no mention of the number of experts who reviewed the samples, which is important because a consensus of experts should be made, and the diagnosis determined, otherwise a measurement bias could occur. Additionally, it is not specified if there was a percentage of rejection or if the entire door-to-door area was not covered. Having said that, it would have been appropriate to mention how many people were invited to participate and, hence, to mention the rejection rate: it would also have been advisable to ask those who did not agree to participate in the study, their age and their level of education, is that there is some relationship between these variables and the negation to participate.

Regarding the data analysis plan, the authors do not mention that they will carry out an analysis of sensitivity and specificity, however it is presented in the Table 3. In addition, use of OR is mentioned as a measure of association between the results of cytology and the presence of HPV infection, however, do not take into account performance of a multivariate analysis in order to avoid confounding bias.

In demographic characteristics, authors report the frequency of contraceptive use in 71.0%; nevertheless, we believe it is more important to detail which contraceptive methods are used, how they were used and for how long. All this, due to the association between the use of oral contraceptives and a high risk of having CIN3, CIS and ICC (HR = 1.6 and HR = 1.8 respectively for ≥ 15 years versus never use) (Roura et al., 2016). Also, use of male condoms has been related to protection against HPV infection (Lam et al., 2014). Other important variables to collect are the number of sexual partners and age of the first sexual intercourse.

As the present study is one of the first studies with population-based in Thailand about the prevalence of HPV and cervical cancer, we consider correct the inclusion in the study of women aged 20 years, however, it has already been shown that cervical screening in women up to age 25 has no impact on rates of invasive cervical cancer, since pre-malignant lesions tend to total remission in this age group (Sasieni et al., 2009; Arbyn et al., 2010). In this context, we recommend prioritizing the screening of women over 25 years of age in settings with low or limited resources.

In conclusion, we reaffirm the relevance of the information provided in this article and the importance of the topic due to the great health problem it represents in the world, as well as we believe that all our comments should be taken into account in order to improve the quality of the results and conclusions.

References

- Arbyn, M., Anttila, A., Jordan, J., et al., 2010. European Guidelines for Quality Assurance in Cervical Cancer Screening. Second edition—summary document. *Ann. Oncol.* 21 (3), 448–458.
- Lam, J., Rebolj, M., Dugué, P., Bonde, J., von Euler-Chelpin, M., Lyngé, E., 2014. Condom use in prevention of human papillomavirus infections and cervical neoplasia: systematic review of longitudinal studies. *J. Med. Screen.* 21 (1), 38–50.

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- Nayar, R., Wilbur, D., 2015. The Pap Test and Bethesda 2014. *Acta Cytol.* 59 (2), 121–132.
- Phoolcharoen, N., Kantathavorn, N., Sricharunrat, T., Saeloo, S., Krongthong, W., 2017. A population-based study of cervical cytology findings and human papillomavirus infection in a suburban area of Thailand. *Gynecol. Oncol. Rep.* 21, 73–77. <http://dx.doi.org/10.1016/j.gore.2017.06.003>.
- Roura, E., Travier, N., Waterboer, T., et al., 2016. The Influence of Hormonal Factors on the Risk of Developing Cervical Cancer and Pre-cancer: Results From the EPIC Cohort. In: Burk, R.D. (Ed.), *PLoS one* Vol. 11(1). pp. e0147029.
- Sasieni, P., Castanon, A., Cuzick, J., 2009. Effectiveness of cervical screening with age: population based case-control study of prospectively recorded data. *BMJ* 339, b3115 (jul31 1).

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