Smoking in users of a cervical cancer screening center of the Mexican government at Mexico City

Sir,

Worldwide, there were >18 million new cases of cancer in 2018; lung cancer is one of the most frequent and lethal. Tobacco is carcinogenic and a well-known risk factor for at least 16 different forms of cancer. Uterine cervix carcinoma is also related to smoking.

In Mexico, cervical cancer is still a major cause of death from malignant neoplasms. This cancer has different screening methods; nevertheless, the Pap smear is widely accepted by the Mexican women. In addition, during the interview for cytology collection, it is systematically asked if there is a smoking habit.

Given the importance of smoking in the development of many cancers, and because its occurrence is unknown in Pap smear users of medical units for workers of the Mexican government, we did this study.

The Pap reports analyzed were those safeguarded in the service of Pathology at the “Hospital General Tacuba” that is a reference center for the diagnosis of Pap smears taken from the ISSSTE units (medical facilities of the Mexican government) in the Western part of Mexico City. This was a retrospective investigation of the Pap reports taken during 2017 in four family medicine clinics and the gynecology service of a general hospital. The study protocol was approved by the institutional research and ethics committees (# 659.2018).

The Pap smears were taken in insured patients (workers, pensioners, or beneficiaries) and in noninsured patients (this is because this is a priority service) in an opportunistic way. In the units where the cervical cytology was taken, identity, demographic data, collection instrument, and smoking history were detailed. Reports with illegible or incomplete data were excluded.
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With the information acquired, we assessed whether the frequency of smoking was related to the medical insurance condition (ISSSTE-insured or no-insured) or by age (<50 or ≥50-years-old). Data were analyzed with Pearson’s “Chi-square”; for all analyses, the statistic program OpenEpi version 3 (Dean AG, Sullivan KM, Soe MM. OpenEpi: Open Source Epidemiologic Statistics for Public Health, Versión. www.OpenEpi.com. USA) was used. All values of $P < 0.05$ were considered statistically significant.

From 5645 Pap reports, whole information was obtained from 4643 [Table 1]. In those latter, there was a history of smoking in 807 (17.38%). In no-insured patients ($n = 386$; average age 35.7 ± 13.4) smoking was reported in 106 (27.46%), and in ISSSTE-insured patients ($n = 4257$; average age 49.7 ± 12.9) in 701 (16.47%); this difference was statistically significant ($P < 0.0000001$; odds ratio [OR]: 1.92, 95% confidence interval [CI]: 1.51–2.43). When analyzing the ISSSTE-insured patients ($n = 4,257$), we identified that in those younger than 50 year-old ($n = 1983$) 381 (19.21%) smoked. Meanwhile, in patients aged ≥50 year-old ($n = 2274$) only 320 (14.07%) reported this habit; this difference was also statistically significant ($P < 0.000006$; OR: 1.45, 95% CI: 1.23–1.70).

When comparing all women aged <50 year-old, in the group no-insured ($n = 320$) 94 (29.38%) smoking was reported. Meantime, in the ISSSTE-insured patients ($n = 1983$), 381 (19.21%) smoking was informed; this difference was significant again ($P < 0.00001$; OR: 1.74, 95% CI: 1.33–2.27).

In Mexico, in 2012, 9.9% of adult women reported smoking.[5] Therefore, the general frequency of 17.38% found from this study is higher. Remarkably, in women noninsured younger than 50-year-old, the rate of smoking increased to 29.38%.

Table 1: Patients’ characteristics (n=4643)

| Age (years-old) | n  |
|-----------------|----|
| <30             | 511 |
| 30-39           | 836 |
| 40-49           | 1207|
| 50-59           | 1254|
| 60-69           | 649 |
| >69             | 186 |

| ISSSTE-insured  |       |
|-----------------|-------|
| Active worker   | 2890  |
| Beneficiaries   | 1255  |
| Pensioners      | 112   |
| No-insured      | 386   |

References

1. Globocan: Cancer Facts Sheets; 2018. Available from: http://gco.iarc.fr/today/fact‑sheets‑cancers, http://canceratlas.cancer.org/?_ga=1.94994329.465927236.1429465038. [Last accessed on 2019 Nov 12].

2. World Health Organization-IARC. IARC monographs on the evaluation of carcinogenic risks to humans; 83. Tobacco Smoke and Involuntary Smoking. Lyon, France: World Health Organization; 2004. Available from: https://publications.iarc.fr/101. [Last accessed on 2019 Nov 12].

3. U.S. Department of Health and Human Services. How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General; 2010. Available from: http://www.ncbi.nlm.nih.gov/books/NBK53017/. [Last accessed on 2019 Nov 12].

4. Aldaco-Sarvide F, Pérez-Pérez P, Cervantes-Sánchez G, Torrecillas-Torres L, Erazo-Valle-Solís AA, Cabrera-Galeana P, et al. Mortality from cancer in Mexico: 2015 update. GAMO.2018;17:28-34.

5. Gutiérrez JP, Rivera-Dommarco J, Shamah-Levy T, Villalpando-Hernández S, Franco A, Cuevas-Nasu L, et al. National Survey of Health and Nutrition 2012. National Results. Cuernavaca, México: Instituto Nacional de Salud Pública (MX); 2012. Available from: https://ensanut.insp.mx/encuestas/ensanut2012/doctos/informes/ENSANUT2012ResultadosNacionales.pdf. [Last accessed on 2019 Nov 12].

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