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Current Screening in Cervical Cancer

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1. Introduction

Cervical cancer can be prevented with the detection and treatment of precancerous lesions caused mainly by high-risk HPV genotypes, which cause more than 90% of cervical cancers [1,2]. The death rate from cervical cancer has declined in developed countries with organized screening programs [3] from 2.8 to 2.3 deaths per 100,000. Evidence is needed about the benefits and harms of HPV tests; in addition, the benefits and harms of various cervical cancer detection strategies; as the beginning of screening from the age of 21; Screening tests with cytology, HPV and Co-testing (cytology and HPV tests) and changes in age are variable from cytology to the HPV test, at age 25 , 27, 30 years, with the re-evaluation of the 3 to 5 years interval and the classification of the results for positive HPV-a (with genotypes VPH-16/18) or of the cytology. Screening strategies based on current guidelines include cytology alone every 3 years starting at age 21, and Co-testing every 5 years from 30 to 65 years.

When assessing the different screening methods for cervical cancer, such as the number of tests performed throughout life, number of colposcopies, detection of lesions, false positive results, cancer deaths, years of life gained and their relationship with the effectiveness on the balance of damages (that is, the shipments to colposcopies) versus benefits (years of life gained and number of cases of cervical cancer); the most efficient strategies are those that have greater benefits than damage or a relationship between the least damage and the greatest benefit [4]. Cytology alone, HPV tests, primary tests or Co-testing, can detect high squamous intraepithelial lesions cervical grade (HSIL) and cervical cancer. Screening in women aged 21 to 65 years substantially reduces the incidence and mortality from cervical cancer.

The damages of detection of cervical cancer in women aged 30 to 65 years are moderate and with the benefit of detection every 3 years with cytology alone in women aged 21 to 29 years substantially outweigh the damage of screening tests. Detection every 3 years with cytology alone, or with HPV-ar tests, alone, or with Co-testing in women aged 30 to 65 years every 5 years outweigh the damage. The screening of women older than 65 years who have had an adequate previous screening and those under 21 years of age does not provide a benefit, nor in women who underwent a hysterectomy for benign pathology; screening does not offer benefits [3].

Randomized clinical trials (RCTs) and cohort studies comparing the HPV test, primary alone, with Co-testing (HPV-ar test with cytology) or cytology alone, were reviewed [1-4] in MEDLINE, PubMed, PsycINFO and the Cochrane Collaboration Register Controlled Trials from January 2011 to May 2018; where they assessed the number of cases of invasive cervical cancer; cervical intraepithelial neoplasia grade 2/3 (CIN-2/3) or HSIL; false positives, number of sent to colposcopy and biopsy rates and psychological damage; they included eight RCTs (n = 410 556), 5 cohort studies (n = 402 615) and 1 meta-analysis of individual participant data (DPI) (n = 176 464) [1,2].

The primary HPV test showed that it increases the detection of CIN-3 or worse (CIN-3 +) in the first round; the relative risk (RR) was 1.61 confidence index (CI) 95%, 1.09-2.37 at 7.46 IC 95%, 1.02-54.66 and the HPV-ar test, in the detection of CIN-3 +; the RR for NIC-3 + in the second round of detection ranged from 0.91 to 1.13. In the first round, the rates of false positive results, for the primary HPV-a test varied from 6.6% to 7.4%, compared to 2.6% to 6.5% for the cytology, the false positives ranged between 5.8 and 19.9% in the first round of screening, compared with 2.6 to 10.9% for cytology. Colposcopy rates in the first round were higher, ranging from 1.2 to 7.9% for the primary HPV test, compared with 1.1 to 3.1% for the cytology alone; the colposcopy rates for the change of cytology to the HPV test ranged between 6.8 and 10.9%, compared with 3.3 and 5.2% for cytology alone. The detection found a lower risk of invasive cervical cancer with any HPV test, compared with cytology alone RR, 0.60 IC of 95%, 0.40-0.89 and 2% for cytology alone [1,2].

If no screening test is performed compared to all CaCu detection strategies, screening reduces cases of cervical cancer, deaths and life years gained. It is estimated that the effectiveness of the different screening strategies are similar; although, when evaluating the HPV tests and other alternatives; the effectiveness is slightly greater, but with greater damage, than when a cytology-based screening is performed; cervical cancer deaths associated with this strategy range between 0.30 and 0.76 deaths per 1000 women, while with HPV, primary or Co-testing, deaths due to cervical cancer are lower, in the range of 0.23 to 0.29 deaths for every 1,000 women and they are efficient, the intervals every 5 years; the HPV test, primary at 5 years, performed at the ages of 30, 27 and 25 years, increases the shipment to colposcopy of 73, 143 and 195 per year of life gained, respectively and is greater when performed every 3 years, oscillating between 2188 and 3822 colposcopies per year of life gained and is not effective [4].

2. Conclusions

Detection with primary HPV may represent a reasonable balance of damage and benefit when performed every 5 years; changing the cytology by the HPV test, primary at the age of 30 years produced the most efficient benefit-on-damage ratio; detected higher rates of CIN-3 + in the first round compared with cytology without increasing the cost due to the initial increase in the detection of CIN-3 +; However, screening with HPV tests increases false-positive rates and sends colposcopy to the cytology, which could lead to overtreatment with possible damage, [1,2] recommendations for the detection of cervical cancer is performed with cytology every 3 days. years in women from 21 to 29 years old, every 5 years with HPV tests, or with Co-testing in women from 30 to 65 years old. Screening is not recommended for women under 21 years of age; neither in women older than 65 years with adequate previous screening without risk of contracting cervical cancer, nor in women hysterectomized for benign pathology [3].

REFERENCES

1. Melnikow J, Henderson JT, Burda BU, et al. Screening for Cervical Cancer With High-Risk Human Papillomavirus Testing Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 2018;320(7):674-86.
2. Melnikow J, Henderson JT, Burda BU, et al. Screening for Cervical Cancer With High-Risk Human Papillomavirus Testing: A Systematic Evidence Review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 158. AHRQ Publication No. 17-05231-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; 2018.
3. US Preventive Services Task Force, Curry SJ, Krist AH, Owens DK, et al. Screening for Cervical Cancer: US Preventive Services Task Force Recommendation Statement. JAMA. 2018;320(7):674-86.
4. Kim JJ, Burger EA, Regan C, et al. Screening for Cervical Cancer in Primary Care: A Decision Analysis for the US Preventive Services Task Force. JAMA. 2018;320(7):706-14.