

# EARLY DETECTION: THE PAP SMEAR IS ALWAYS THE BEST OPTION?

DETECCIÓN TEMPRANA: ¿EL PAPANICOLAOU ES SIEMPRE LA MEJOR OPCIÓN?

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LETTERS TO THE EDITOR

## Mr. Editor

The cervical cancer in Peru, represents an incidence and mortality rate of 32,7 and 12.0 per-100 000 inhabitants respectively<sup>(1)</sup>; and it takes the fourth place as one of the most frequent neoplasms with 569 847 reported cases in 2018 worldwide<sup>(2)</sup>. These statistics, make us evaluate what health actions can guarantee the early detection of this disease.

According to the National Plan for Prevention and Control of Cervical Cancer<sup>(3)</sup>, the screening of this pathology in Peru establishes to carry out the Visual inspection with acetic acid (VIA) test from 30 to 49 years, while conventional cytology (PAP) from 50 to 64 years; these represent age ranges where it can be difficult to evaluate in a retrospective way the cancer's early stages, especially in women that haven't have received immunization previously or that have an active sexual life before the 15 years old.

In Perú, The Pap Test, although it is true it is accessible at the three care levels, provides low sensitivity and limited reproducibility<sup>(3)</sup>. This could suppose false negatives that, in turn, would generate a late detection of cervical cancer, eventually producing higher costs in the treatment and under control of the disease, without even considering the consequences.

On the other hand, there are other types of detection tests, such as molecular and genetic tests with established characteristics<sup>(4)</sup> (Table 1). However, this time the evaluation and implementation of the Liquid Base Cytology (LBC), also known as ThinPrep Cytological Test (TCT), is proposed.

The LBC is a procedure that does not require an initial smear, in general the sample is removed with a brush and deposited in a fixative liquid, this preparation has to be centrifuged in order to detect squamous intraepithelial lesions, and the advantage is that it can be used many times unlike other tests.

Although it is true, some studies say that the sensitivity and prediction values are similar to PAP<sup>(5)</sup>, other publications prove that sensitivity of LBC goes from 79.1% to 90%, letting behind the Visual inspection with acetic acid (30 - 87%), lugol (87.2%) and conventional cytology (32.4 - 90%); screening techniques commonly used in underdeveloped countries<sup>(4)</sup>.

A study carried out by Liu Y. Et Al.<sup>(6)</sup>, in samples obtained from 420 women, suggests that the best way to guarantee a high sensitivity in the diagnosis, is perform the LBC combined with HPV-DNA detection test.

By this way, we can conclude that to detect cervical cancer early and based on scientific evidence, the LBC test is a feasible and effective alternative for our population in Peru. Therefore, in order to improve public policies, alliances could be established with companies specialized in this procedure, in order to reduce their implementation costs, guaranteeing in long term, higher quality standards in prevention.

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Cite as: Franshesca L. Sedano-Chiroque. Early detection: The pap smear is always the best option?. Rev. Fac. Med. Hum. April 2020; 20(2):343-344. DOI 10.25176/RFMH.v20i2.2903

**Table 1.** Summary of screening tests for cervical cancer and human papillomavirus.

Test	Detects	Use	Sensitivity	Specificity
Conventional cytology / Pap	Abnormal cells	Possible injuries cervical	32.4% to 90%	94%
Liquid-based cytology	Abnormal cells	Possible injuries cervical	79.1% to 90.4%	NA
Visual inspection acetic acid	Visible cervical injuries	Possible injuries cervical	30% to 87%	86% to 100%
Lugol visual inspection	Visible cervical injuries	Possible injuries cervical	87.2%	84.7%
Colposcopy	Cervical neoplasm	Injuries cervical	83%	86%
Hybrids II	VPH	High and low HPV detection	96%	66.7%
Hybrids III	VPH	Risk (13 types)	87.7% to 96.9%	90.6%
PCR	VPH	Detection of high and low risk HPV (27 types)	83.9% to 100%	64.1% to 95.1%

**Source:** Samperio Calderón JE, Salazar Campos A. Efficacy of diagnostic tests for Cervical Cancer and Human Papillomavirus. JONNPR. 2019;4(5):551-66. DOI: 10.19230/jonnpr.2953

**Authorship contributions:** The author made the generation, collection of information, writing and final version of the original article.

**Financing:** Self-financed.

**Conflict of interest:** The author declares that she has no conflicts of interest in the publication of this article.

**Received:** March 14, 2020

**Approved:** March 24, 2020

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