A study from China finds the accuracy of HPV tests done with patient-collected samples may be good enough to offer a complement to existing cervical cancer screening programs into low-resource areas.

Since the introduction of the Pap test in the mid-20th century, cervical cancer rates have plummeted in nations that have widespread screening programs. In the developing world, however, where medical services are often lacking, cervical cancer remains a huge public health issue. More than 80% of all cases of the disease occur in poverty-stricken areas of the globe, largely due to a lack screening programs. One approach to reaching these women may be a more private, convenient “do it yourself” approach where patients literally are given a self-sampling device with instructions on correct insertion, cell collection, and storage/transport.

In a study done with more than 13,000 women enrolled in five cervical cancer screening studies throughout China, researchers looked at how well HPV tests done with self-collected samples compare to other methods of screening for the disease: health care provider-collected samples, visual inspection with acid (VIA, where acetic acid is applied to the cervix making it easier to see any lesions), and liquid-based Pap tests (LBP, cells are collected as with a conventional Pap but instead of being affixed to a glass slide, the cells are put in a liquid-suspension solution in a vial). The investigators compared the sensitivity (avoiding a false negative test result) and specificity (avoiding a false positive) of each method in detecting moderate to severe cervical diseases (cervical intraepithelial neoplasia, or CIN 2 and CIN 3). China was a good venue for such research, given the country lacks a broad screening program for cervical cancer yet bears a large burden of the disease.

How did self-sampling stack up against other means of cervical cancer screening? In detecting CIN 2+, self-collected samples had a sensitivity of 86.2%, considerably better than that of VIA (50.3%) and LBC (80.7%) but not as well as those collected by a health care provider (97.0%). The specificity of self-collection in detecting CIN2 + was 80.7%, comparable to provider-collected samples (82.7%) and lower than both VIA (87.4%) and LBC (94.0%).

With CIN 3+, self-collection’s sensitivity was 86.1%, sharply superior to VIA (55.7%), similar to LBC (89.0%), and lower than provider-collected samples (97.8%). Specificity with self-collection in finding CIN3 + was 79.5%, on par with samples taken by providers (81.3%) but lower than VIA (86.9%) and LBC (92.8%).

Reference:

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