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Is mass cytological cancer screening possible worldwide?

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Our answer is yes, but with appropriate tools.

Although preventable, cervical cancer is still, second to the breast cancer, major killer of women from malignant diseases worldwide. The outreach for preventive cytological screening is less than 10% in the most of the developing countries. Screening for risk factors such as HPV have contributed, but still not sufficiently.

At EB 2004, we presented for the first time our proprietary, biomarker-based MarkPap® platform technology. The biomarker is cytoplasmic expression of genetic changes in cervical cells during transformation from normal to pre-malignant (dysplastic) and malignant. At subsequent EB meetings, we presented further developments of this technology from manual to semi-automated, to diagnosis at distance-telectytopathology (both digital and wireless), including home self-collection. Most recently, we made self-collection kit. With all these small devices, a low-trained technician at the POC in remote sites, can process the specimen with customer-friendly MarkPap® kit, locate suspicious cells by the biomarker and transmit microscopic images of those cells via MarkPap® Digital networking system to expert sites for instant diagnosis. Our recent testing with China and India proved that this concept is feasible.

Consequently, development of low-cost devices for mass cervical cancer screening for developing countries is warranted. .