

Concordance rate between E-Prep and SurePath in cervical cytologic examination

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Background

Liquid-based cytologic preparation in uterine cervix is prevalent nowadays, and ThinPrep and SurePath methods are especially popular in use. Recently, new methods with lower price were developed in practice. Recently E-Prep system has been developed in Korea and we would like to compare the concordance rate between E-Prep and SurePath.

Method

For detection of cervical abnormalities, Liquid-based cytologic preparations were produced in 349 patients using both E-Prep and SurePath. In each patient, sample for SurePath was taken first, and additional brush was used for E-Prep sample. We excluded five slides using E-Prep due to markedly low cellularity probably due to the second sampling. Total 344 cases were compared.

Table1. Comparison of Two Systems

	E-Prep	SurePath
Mechanism	Membrane filter	Precipitation
Fixative	Ethanol-based	Ethanol-based
Diameter of specimen	20mm & 15mm	11mm
Time for preparation	4 cases /1min	12 cases /40min

E-Prep 20mm



E-Prep 15mm



SurePath



Fig1. E-Prep: Normal



Fig2. E-Prep: Atrophy

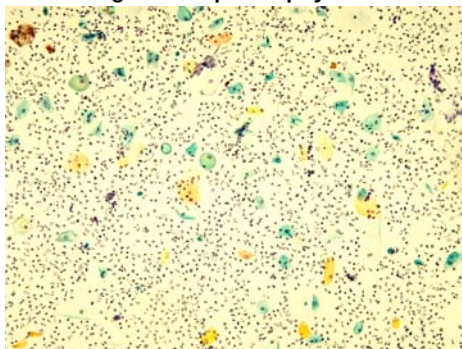
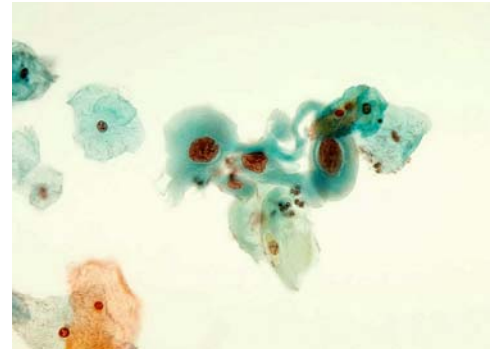


Fig3. E-Prep: Low SIL



Result

In E-Prep preparations, diagnoses were made as 300 benign, 36 ASCUS and 8 SIL, whereas in SurePath preparations, 315 Benign, 22 ASCUS and 7 SIL. Diagnostic difference between two methods was noted in total 27 cases and the detailed data are as follows.

Table 2. Result (1)

	SurePath			
E-Prep	Benign	ASCUS	SIL	Total
Benign	295	2	3	300
ASCUS	18	18	0	36
SIL	2	2	4	8
Total	315	22	7	344

Table2. Result (2)

	E-Prep	SurePath
ASCUS ratio(%)	36/344(10.47%)	22/344(6.39%)
ASCUS:SIL	36/8	22/7

Conclusion

Newly developed, E-Prep method is able to collect relatively large number of epithelial cells arranged in monolayer with good cytologic details. So we think it useful as a tool of cervical cytologic preparation.