

Letter

Are sample taker and obscuring inflammation important in getting an adequate specimen ?

To the editor

Adequacy of a specimen has been mentioned as a prerequisite for a good diagnostic reliability of a cervical smear. Bethesda reporting system has mentioned the term adequacy specimen in its terminology.¹ This study aims to evaluate the importance of sample taker and obscuring inflammation as the factors that influenced the adequacy of a smear.

This study was held at the cytology laboratory, Department of Histology, Faculty Medicine, University of Indonesia from May 1998 until December 1998. This is a retrospective study. Bethesda reporting system for cytology has been used in this study.¹ Adequacy of specimen was determined by looking at the presence of endocervical materials and the defined boundaries of targeting cells. The X^2 test was used as the statistical method.

Sample taker was one of the most important determinant factor in this study ($P < 0.01$, table 1).

Table 1. Sample taker and the presence of endocervical material

Sample taker	The Presence of endocervical material	
	Endos +	Endos -
Ob Gyn Specialist	221	6
GP/midwives	162	15
Total	383	21

$X^2 = 6.81, P < 0.01$

Endos = endocervical material

Ob Gyn = Obstetry and gynaecology

GP = general practitioner

Obscuring inflammation was also a very important dominant factor that might influence the adequacy of the specimen ($P < 0.01$, Table 2).

Table 2. The Presence of inflammation and the adequacy of a spesimen

Presence of inflammation	Specimen adequate to be read	
	Adequate	Not adequate
Inflammation present	153	58
Inflammation not present	190	3
Total	343	61

$X^2 = 53, P < 0.01$

Many patients have been alarmed by media reports that the Pap smear's false negative rate for the detection of cervical cancer is as high as 40 to 50 percent.² Since few medical personels understand that the Pap is not a diagnostic test but only a screening test, many of them made a plan for therapy just based on its result. Approximately two third of the female population in Indonesia has never been screened for cervical cancer, unless access to dedicated medical personel is improved. The screening test will never be used to its actual potential.

Any specimen designated as "unsatisfactory for evaluation" is certainly unreliable for the detection of cervical epithelial abnormalities and need to be repeated. "Satisfactory for evaluation but limited by.....," indicates that the specimen provides useful information, however interpretation may be compromised. The most debated topic in this category is the importance of a negative smear that lacks an endocervical component,³ because squamous precursor lesions most commonly arise in the transformation zone, so it is possible to argue that without an evaluation of this region, a lesion could be potentially be missed.^{4,5,6} The absence of the endocervical component that account for false negative smears is due to sampling error.⁷⁻¹⁰ Recent studies have shown that the use of an endocervical brush can increase the yield of endocervical cells by sevenfold,¹¹ and it can also be used during pregnancy.¹² The ability to sample adequately correlates with the number of smears taken annually.¹³

If we are investigating forward about the unsatisfactory smear, we might find that the presence of exces-

sive blood and also predominance of leucocytes may interfere with the changes of cells that we have observed.¹⁴ The terms inflammatory atypia were over-used to refer to anything from benign reactive changes to preinvasive cellular changes,⁷ and presence of cervico-vaginal infections can lead to the interpretation of a higher cytological grading.¹⁵ Many women with invasive cancer, historically actually have had negative result from unsatisfactory smears on review.¹⁴

In conclusion, sample taker and obscuring inflammation are very important factors in getting an adequate specimen.

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