

(low grade squamous intraepithelial lesion)

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=Abstract=

Clinical Evaluation of Women with Low Grade Squamous Intraepithelial Lesion on Pap Smears

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The purpose of this study was for clinical evaluating those women with low grade squamous intraepithelial lesions (LSIL) who have been detected on Pap smears.

We analyzed 279,270 Pap smears, from January 1994 to August 1997, of which 703 cases were identified as LSIL, and their medical records were reviewed retrospectively. Among them, 616 cases were able to follow-up by altered methods (repeated Pap smear only vs. histologic examination) and their efficacy for detecting more significant lesion (high grade squamous intraepithelial lesion: HSIL or invasive cancer) were also compared.

The results were as follows;

1. The frequency of LSIL on Pap smears was approximately 0.25%.
2. The mean age was 39 years (range 18 70 years).
3. Most of the gross finding of the cervix were normal or mild erosion.
4. Most of symptom was asymptomatic, or nonspecific.
5. Eighty-seven women with LSIL on initial Pap smears, have performed repeated Pap smears. 74 (85.1%) was normal, 7 (8.0%) was ASCUS, 6 (6.9%) was LSIL. Remained 529 women had subsequently histologic examination such as colposcopic directed biopsy or cone knife biopsy. These histologic results showed 192 (36.3%) with normal, 258 (48.8%) with LSIL, 77 (14.6%) with HSIL, 2 (0.4%) with microinvasive carcinoma.

Based on the results in this study, we emphasize the importance of regular screening procedures for early detection of cervical lesions because there was no specific clinical characteristics in women with cytologic diagnosis of LSIL. In addition, we recommened colpo-

scopic directed biopsy or cone knife biopsy as follow-up evaluation method in women with LSIL on initial Pap smear for detecting more significant cervical lesion.

Keywords: LSIL, Repeat cytologic Examination, Colposcopic directed biopsy cone knife biopsy

HSIL) (low grade squamous intraepithelial lesion, LSIL)
Bethesda System SIL 2
22%
1 가
가 .1) LSIL 가
1941 Papanicolaou (Pap smear) 가
.2 Pap smear
20 50% LSIL
,36 1976 Melamed (squamous atypia) 7)
LSIL
1988 National Cancer Institute Bethesda Workshop The Bethesda System(TBS) 8)
1991 Bethesda System 9)
1994 1 1997 8
가 279,270 703 가 LSIL
1991 TBS 1995 가 616
TBS CIN , LSIL
10) LSIL
TBS
. Bethesda System 가
(squamous dysplasia), Ayre spatula, Cytobrush, Cervix brush 95% Papa-
(carcinoma intraepithelial neoplasia) nicolau 가
(squamous intraepithelial lesion, SIL) 가 TBS
(high grade squamous intraepithelial lesion,

TBS (mild dysplasia) virus(HPV) LSIL CIN I human papilloma 가 . HPV

(condensation) (koilocyte) 3 (dyskera-

LSIL 가 (sheet) (mature, superficial type cell) 가 3 가 , 가

mature keratinocytes가 1/3

1. 279,270 703 가 LSIL , 0.25%

2. 18 70 30 40 가 55.3% 가 , 39 (Table 1).

3. (gravity) 0 27 3.87 , 75(10.7%) 가 (Table 2). (parity) 0 8 1.84 , 152 (21.6%), 1 2 가

338 (48%), 3 4 170 (24.2%) (Table 3).

Table 1. Age distributions

Age (year)	No. of cases (%)
10 19	1(0.1)
20 29	148(21.0)
30 39	219(31.2)
40 49	170(24.2)
50 59	131(18.6)
60 69	33(4.7)
70 79	1(0.1)
Total	703(100)

Table 2. Gravity

Gravity	No. of cases (%)
0	75(10.7)
1 2	193(27.5)
3 4	176(25.0)
5 6	122(17.4)
7 8	70(10.0)
9	51(7.3)
Unknown	16(2.3)
Total	703(100)

Table 3. Parity

Parity	No. of cases (%)
0	152(21.6)
1 2	338(48.0)
3 4	170(24.2)
5 6	25(3.6)
7 8	2(0.3)
Unknown	16(2.3)
Total	703(100)

4. 가 236 (33.6%) 가 88 (12.5%) , 84 (11.9%), 76 (10.8%), 63 (9%), 31 (4.4%), 19 (2.7%) , 가 24 (3.4%), 82 (11.7%) (Table 4).

Table 4. Main symptoms

Symptoms	No. of cases (%)
Asymptomatic	236(33.6)
Low abdominal pain	88(12.5)
Abnormal vaginal bleeding	84(11.9)
Abnormal cytology	82(11.7)
Infertility	76(10.8)
Leukorrhea	63(9.0)
Uterine myoma	31(4.4)
Menopausal symptom	19(2.7)
Others*	24(3.4)
Total	703(100)

Others*: vulva pain 6 cases, vulva pruritus 9 cases, ovarian tumor 9 cases

5.

(85.5%) . 393 (55.9 %), 208 (29.6%), 72 (10.2 %), 5 (0.7%), 6 (0.9%), 2 (0.3%), 13 (1.8%), 4 (0.6%) (Table 5).

Table 5. Gross findings of the cervix

Gross findings	No. of cases(%)
Normal	393(55.9)
Mild erosion	208(29.6)
Moderate erosion	72(10.2)
Severe erosion	5(0.7)
Polyp	6(0.9)
myoma of uterus	2(0.3)
Cervical cancer	4(0.6)
Atrophied cervix	13(1.8)
Total	703(100)

Table 7. Histologic results of LSIL on initial Pap smear

Diagnosis	No of cases(%)		
	Colposcopic directed biopsy	Cone knife biopsy	Total
Normal	163(40.2)	29(23.4)	192(36.3)
LSIL	205(50.6)	53(42.7)	258(48.8)
HSIL	37(9.1)	40(32.3)	77(14.6)
Microinvasive Ca	0(0)	2(1.6)	2(0.4)
Total	405(100)	124(100)	529(100)

6.

가 616 87 , 529 405 124 74 (85.1%) , ASCUS(atypical squamous cells of undetermined significance) 7 (8.0%), LSIL 6 (6.9%) (Table 6).

Table 6. Repeated cytology results of LSIL on initial Pap smear

Diagnosis	No of cases(%)
Normal	74(85.1)
ASCUS	7(8.0)
LSIL	6(6.9)
Total	87(100)

405 163 (40.2%), LSIL 205 (50.6%), HSIL 37 (9.1 %), 124 29 (23.4%), LSIL 53 (42.7%), HSIL 40 (32.3%) (microinvasive cancer) 2 (0.4%) (Table 7).

529 192 (36.3%), LSIL 258 (48.4%), HSIL 77 (14.6%), 2 (0.4%) (Table 7).

HSIL 가 0%, 15% .

The Bethesda system(TBS) dysplasia/CIS

(CIN) SIL 36 39 가

mild dysplasia/CIN I 15)

CIN II 18

severe dysplasia-CIS/CIN III 70 , 30 40 가 55.3%

39 가

3 4 2 가

가 가 10.7%,

3 4 21.6%

가

가 , 가 35%,16)

CIN I 36%,17) 38.5%,18) Hall 39.9%,19) Mackay

40%, Young 46%, Creasman 47%20)

(mild dysplasia) HPV 33.6%

가 Bethesda System SIL 2

LSIL 11.9%, 12%, Foote 16.7%,

가 17 19%, Parker 25.1%, Copenhyer 42%

55.9%

LSIL colposcopic exophytic condylomas 40.5%

가 squamocolumnar junction 29.6%, 10.2%, 0.7%

satellite area acetowhite area가

shiny snow or gray white color ,

fine caliber vessels or no surface vessels

punctuation or mosaicism . iodine

mahogany brown mustard yellow

Reid's colposcopic index (35%) , 16 (43%) LSIL ,

0 2 8 (22%) HSIL .21) Flannelly

LSIL Tayler (1994) LSIL mild moderate dyska-

(1993) 17,000 184 (1.1%) 11) ryosis 227 (Punch biopsy)

Awon (1994) 1,000 9 (0.9% (Large loop excision)

%),12) Ollayos & Swogger(1995) 8,029 203 47.1% CIN 가 ,22)

(2.5%) ,13) (1993) 30,428 Regi Pap smear LSIL 100

284 (0.9%) .14) 279,270 , 51 (51%)

703 (0.25%) LSIL, 10 (10%) HSIL LSIL

CIN 가

, LSIL .23)

LSIL 가

87 6 (6.9%) ,

405 242 (59.7%),
124 95 (76.6%)
2 (1.6%) (microinvasive carcinoma)
Pap smear LSIL
HSIL Maggi (1989)
20.4%,6 Walker (1986) 33%,24 Tayler (1993)
17%,11 Regi (1994) 10%,23 Boulger (1986)
39% ,25 Soutter (1988) mildly dyska-
ryotic smear 49% premalignant lesion

local ablative treatment

.26
405 37 (9.1%),
124 42 (43.9%)
529 79 (15%) HSIL

Pap smear LSIL

가
LSIL

,
, HSIL

LSIL

가

1994 1 1997 8

279,270

703

가 가 616

1. LSIL
0.25%

2. 18 70 ,
39

3.

4.

5. LSIL

87 74
(85.1%) , ASCUS 7 (8.0%), LSIL

6 (6.9%) , 529

192 (36.3%), LSIL 258 (48.4%),
HSIL 77 (14.6%), (microinva-
sive cancer) 2 (0.4%)

LSIL

가
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- References -

1. 1995 :
2. Clarke EA, Anderson TW: Does screening for Pap sme-
ars help prevent cervical cancer, A case control study,
Lancet 1979;2: 1-4.
3. Hurt WG, Silverberg SG, Fable WJ: Adenocarcinoma of
the cervix, histopathologic and clinical feature, Am J
Obstet Gynecol 1977;129:304-315.
4. Coppleson LW, Brown B: Estimation of the screening
error rate from the observed detection rates in repeated
cervical cytology, Am J Obstet gynecol 1974;119:953-
958.
5. Fetherstone WC: False-negative cytology in invasive ca-
ncer of the cervix, Clin Obstet Gynecol 1983;26:929-
937.
6. Maggi R, Zannoni E, Giorda G: Comparison of repeat
smear, colposcopy and colposcopically directed biopsy in
th evaluation of mildly abnormal smear, Gynecol Oncol

- 1989;35:294-296.
7. Melamed MR, Flehinger BJ: Non-diagnostic squamous atypia in cervico-vaginal cytology as a risk factor for early neoplasm, *Acta cytol* 1976;20:108-110.
8. The 1988 Bethesda system for reporting cervical/vaginal cytologic diagnoses, National Cancer Institute Workshop, *JAMA* 1989;262:931-934.
9. The Bethesda system for reporting cervical/vaginal cytologic diagnoses, Report of the 1991 Bethesda workshop, *Am J Surg Pathol* 1992;16:914-916.
10. . The Bethesda system(TBS)-
 , 1995;6:85-98.
11. Taylor RB, Guerrieri JP, Nash JD AU: Atypical cervical cytology, colposcopic follow-up using the Bethesda system, *J Reprod Med* 1993;38:443-447.
12. Awen C, Hathway S, Eddy W: Efficacy of thin prep preparation of cervical smears, A 1,000 case, investigator-sponsored study, *Duagan Cytopathol* 1994;11:33-36.
13. Ollayos CW, Swogger KA: Abnormal cervical smears in the military recruit population, *Mil Med* 1995;160: 577-578.
14. , , . Bethesda system
 atypical squamous cells of undetermined significance
 가, 1993;4:81-86.
15. , , , , .
 가 ,
 1977;20:823-833.
16. , , , .
 ,
 1974;17:249-256.
17. , , .
 , 1980;23:469-478.
18. , , , .
 , 1967;10:
 31-40.
19. Hall JE, Botce: Ca in situ of the cervix uteri (A study of 409 patients), *Obstet Gynecol* 1969;34:225-234.
20. Creasman WT, Lutledge F: Ca situ in cervix, An analysis of 861 patients, *Obstet Gynecol* 1972;39: 373-380.
21. Goff BA, Rice LW, Fleischhacker DS: Large loop excision of the transformation zone in patients with exocervical squamous intraepithelial lesions, *Eur J Gynaecol Oncol* 1994;15:257-262.
22. Flannelly C, Anderson D, Kitchiner HC: The management of women with mild and moderate cervical dyskaryosis, *BMJ* 1994;308:1399-1403.
23. Regi A, Krishnaswami H, Jairaj P: Management of patients with mildly dysplastic cervical smears, *J Reprod Med* 1994;39:455-458.
24. Walker EM, Dodgson J, Duncan ID: Does mild atypia on a cervical smear warrant further investigation?, *Lancet* 1986;2:672-673.
25. Bolger BS, Lewis BV: A prospective study of colposcopy in women with dyskaryosis or koilocytosis, *Br J Obstet Gynecol* 1988;95:1117-1119.
26. Soutter WP, Wisdom S, Brough AK: Should patients with mild atypia in a cervical smear be referred for colposcopy?, *Br J Obstet Gynecol* 1986;93:70-74.