

The value of LEEP conization in diagnosis of early occult cervical cancer: a large retrospective study of 6654 cases

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Disclosures

- No financial relationships or conflict of interest to disclose



Introduction

- Colposcopy directed biopsy (CDB)
 - pivotal in diagnosis of cervical cancer
 - Failed to detect all early cervical cancer



Introduction

- LEEP conization
 - Cure cervical precancer
 - Detect unsuspected early invasive cancer
 - The early detection and appropriate management of occult cervical cancer is pivotal.
 - Incidence of 6-8% of patients was reported to have an underlying unsuspected early invasive carcinoma.
 - Incidence of early ICC by LEEP might be higher in our experience.



Methods-patients

- ✓ A large retrospective study
- ✓ All patients were included diagnosed HSIL, AIS and persistent LSIL for 2 years by CDB and then underwent LEEP conization in Ob/Gyn Hospital of Fudan University from July 1st, 2013 to July 1st, 2015.

6654 cases!



Methods-LEEP conization and pathologic examination

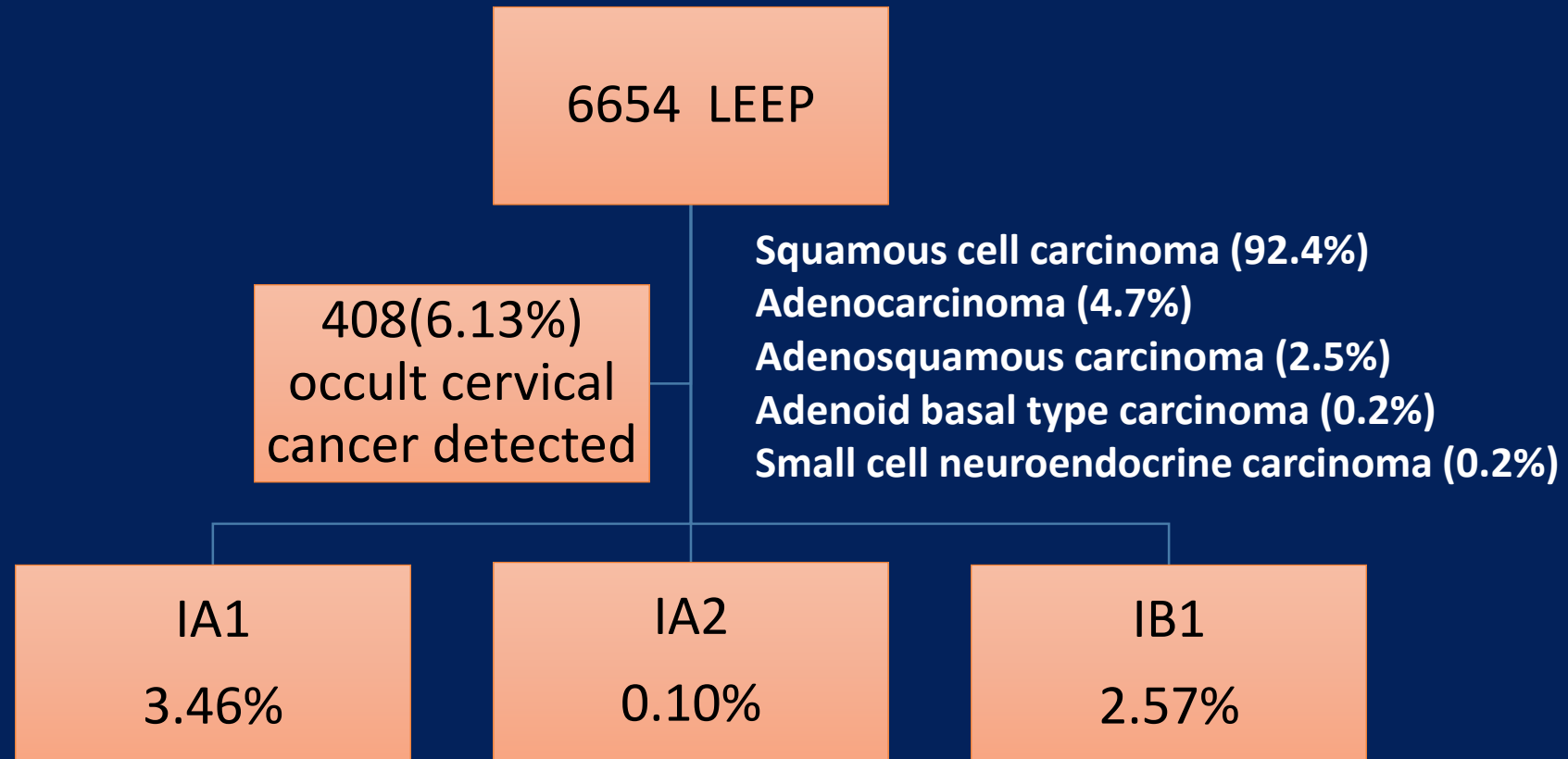
- ✓ Excisional techniques should remove tissue to a depth of 7-10 mm, 10-15 mm, 15-25mm in type I, II, III cervical transformation zone, respectively.
- ✓ All pathologic specimens were processed by a standardized protocol and were interpreted by an experienced staff pathologist and verified by another advanced pathologist.



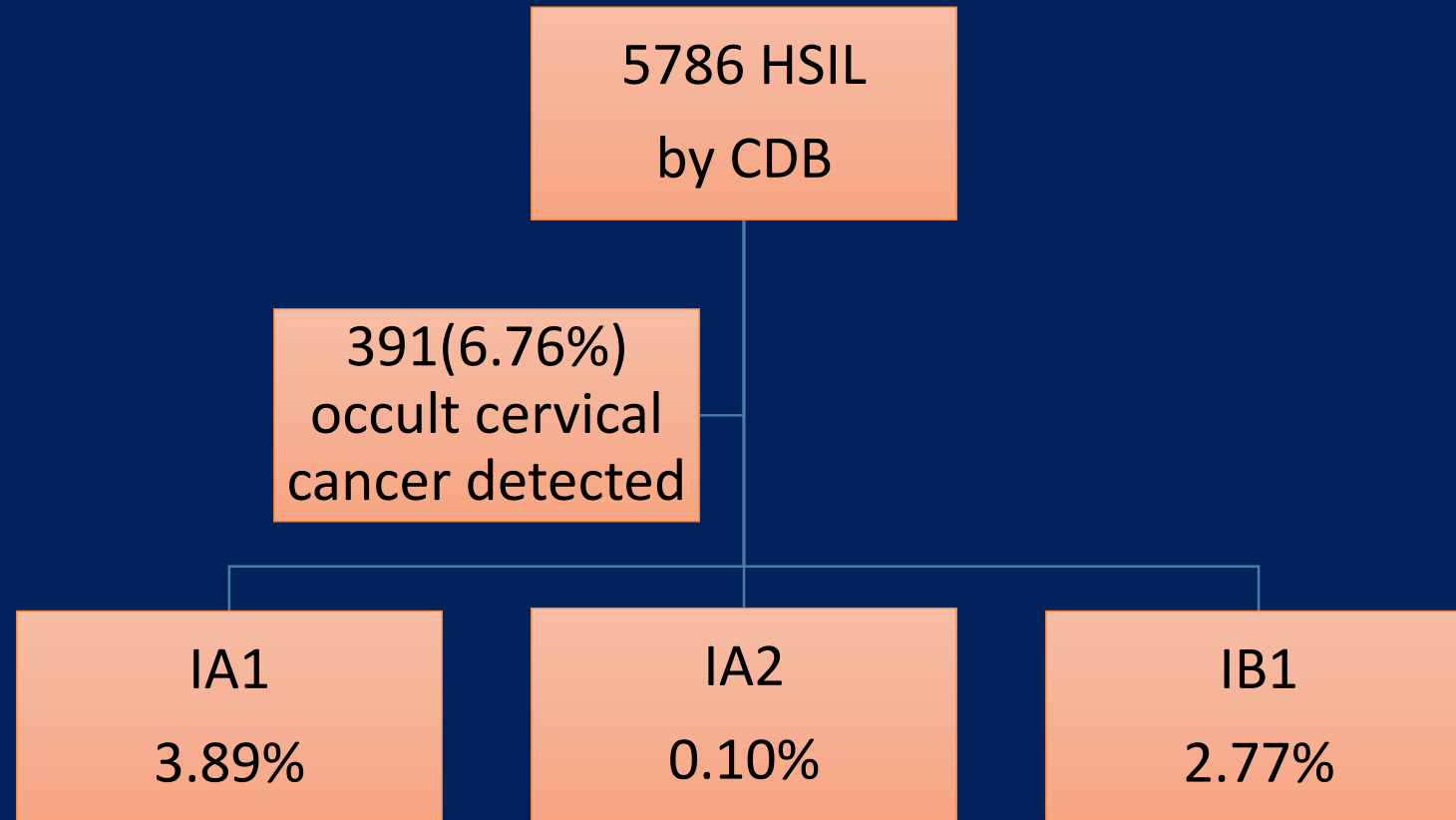
Results of pathology



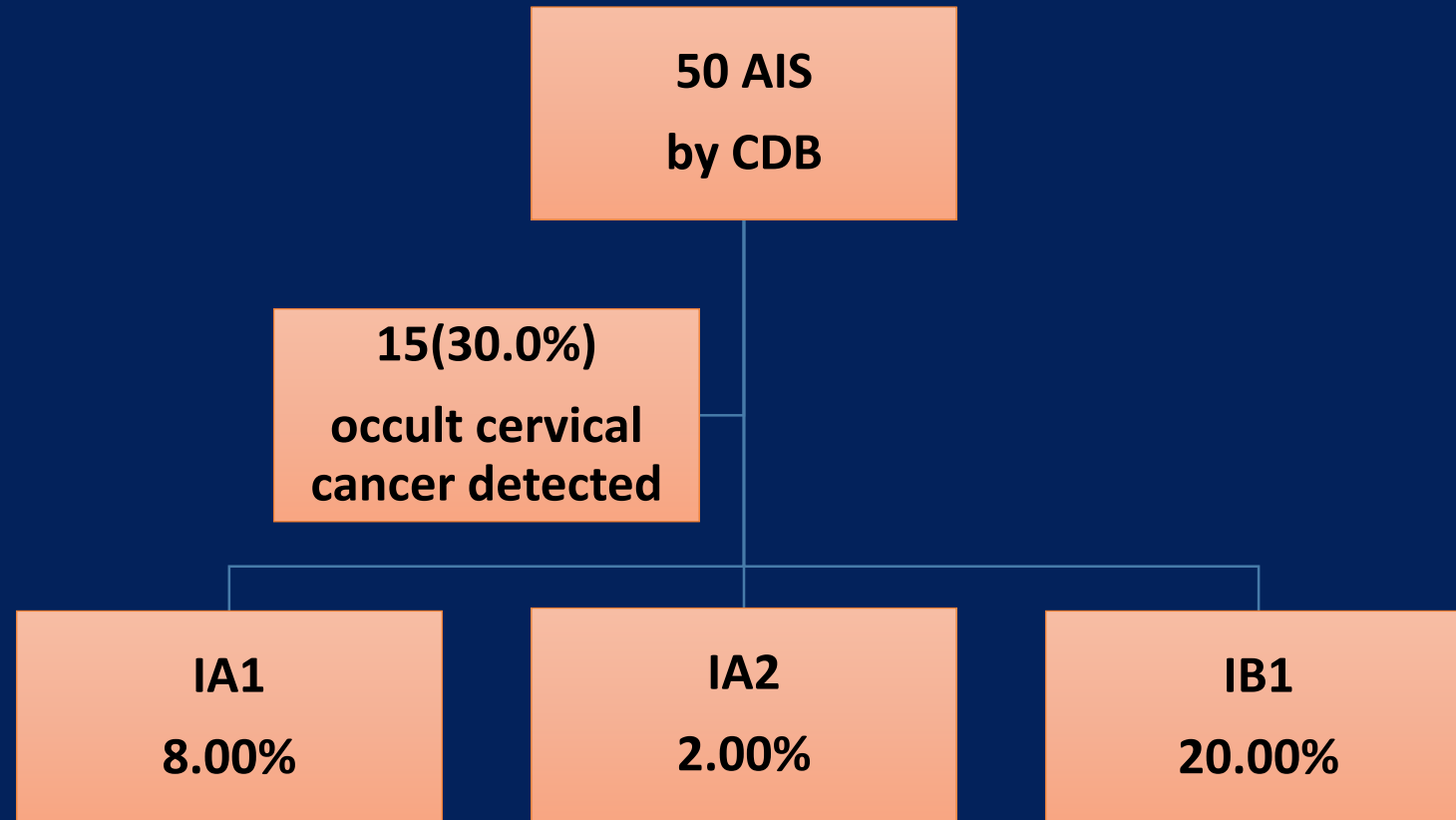
Early occult cervical cancer detected by LEEP



Early occult cervical cancer detected by LEEP in HSIL



Early occult cervical cancer detected by LEEP in AIS



Pathologic results of 408 occult cervical cancer(IA/IB1) before and after LEEP

Punch biopies	LEEP conization			LEEP total	Occult cervical cancer(%)
	IA1	IA2	IB1		
LSIL	1	0	1	818	2 (0. 24)
HSIL	225	6	160	5786	391 (6. 76)
AIS	4	1	10	50	15 (30. 00) ★
Total	230	7	171	6654	408 (6. 13)



Results of cytology



Cytology of occult cervical cancer diagnosed by LEEP(IA/IB1)

Cytology test	Cases	Ratio (%)
HSIL	132 ^a	48.71
ASC-US	50	18.45
LSIL	27	9.96
ASC-H	22	8.12
SCC	5	1.85
AGC	2	0.74
AIS	1	0.37
NILM	32 ^b	11.81
Total	271	100

a: Among the 132 HSIL cytology results, 9 were HSIL with suspicion of carcinoma, 1 was HSIL with AGC.

b: Among the 32 cases with normal cytology results, 27 cases had HPV test results, and all the results were HPV positive.



Sensitivity of cytology

88.19%
(239/271)



Results of HPV test



HPV test of occult cervical cancer diagnosed by LEEP(IA/IB1)

HPV test	Cases	Ratio (%)
HPV+	229	95.82
HPV-	10 ^c	4.18
Total	239	100

← Sensitivity

c: Among the 10 cases with negative HPV results, all of them had abnormal cytology results, 2 were HSIL, 3 were ASCUS, 2 were ASC-H, 1 was LSIL, 1 was SCC, 1 was AGC.



Conclusions

- In early detection of cervical cancer, conization is essential in addition to CDB .
- Patients with AIS by CDB have high risk for occult invasive cervical carcinoma.
- Cytology is important in screening with high sensitivity near to 90%.



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Thanks for
listening!

