
Good Afternoon !

宫颈癌筛查-阴道镜与临床实践案例分析

昆明医科大学第一附属医院 妇科
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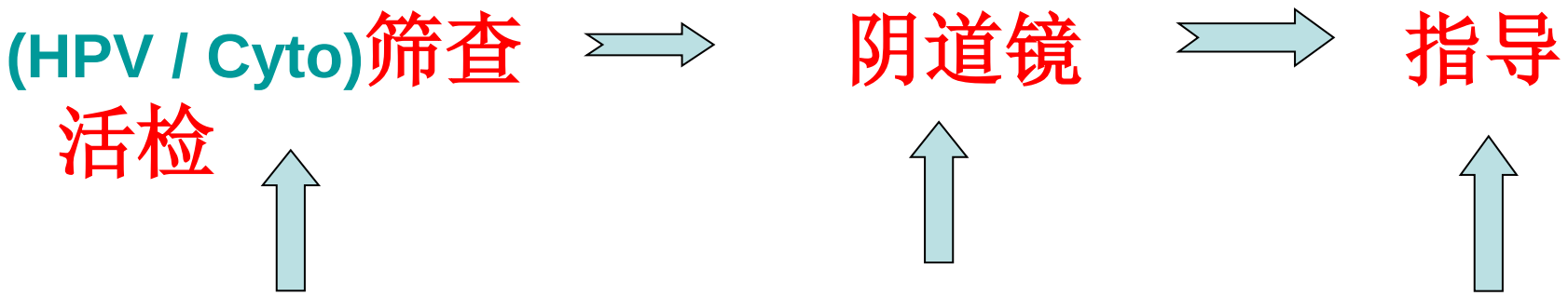
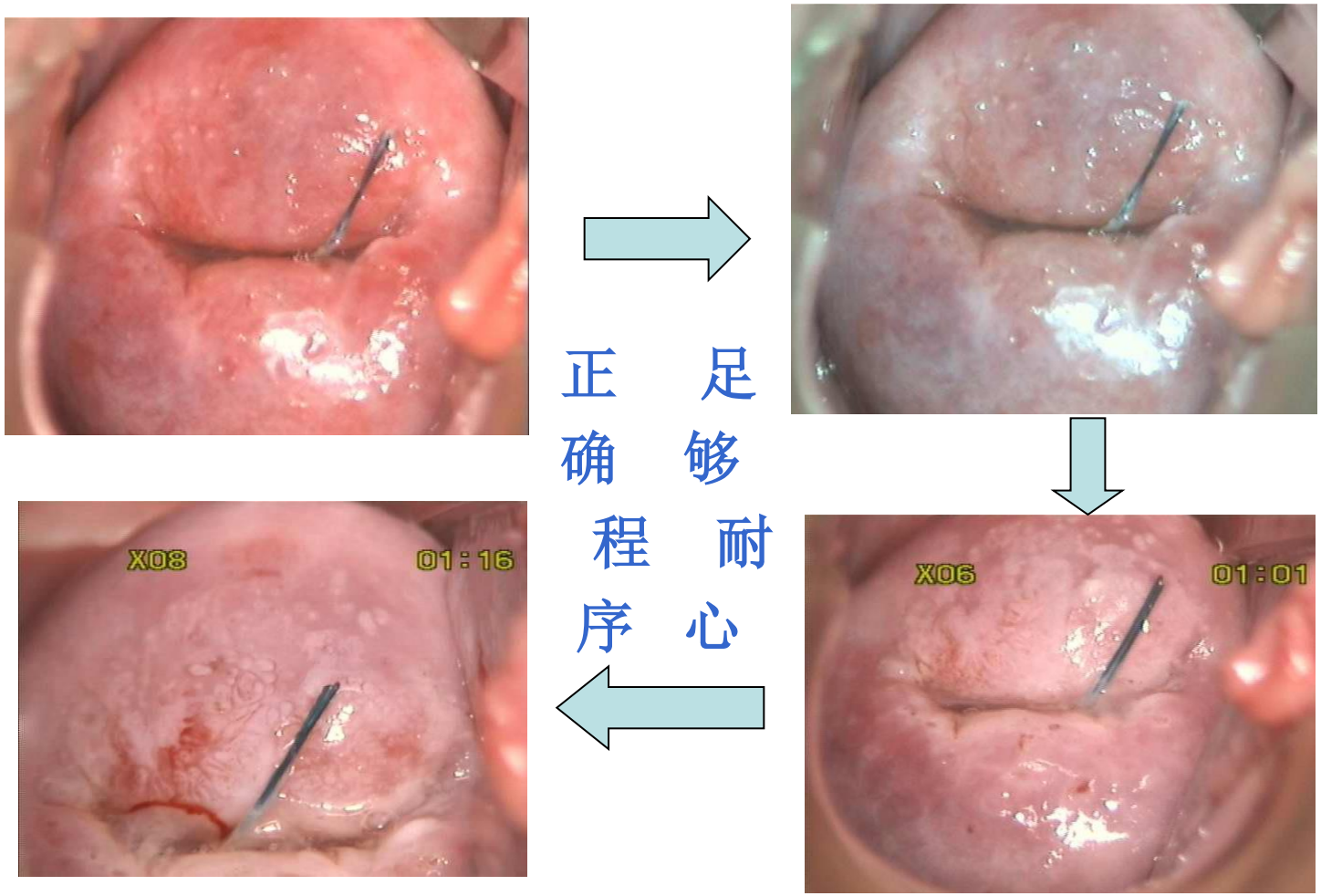
前　　言

●三阶梯方法



前　言

- 阴道镜检查目的:准确发现异常增生性病灶



阴道镜检查的影响因素

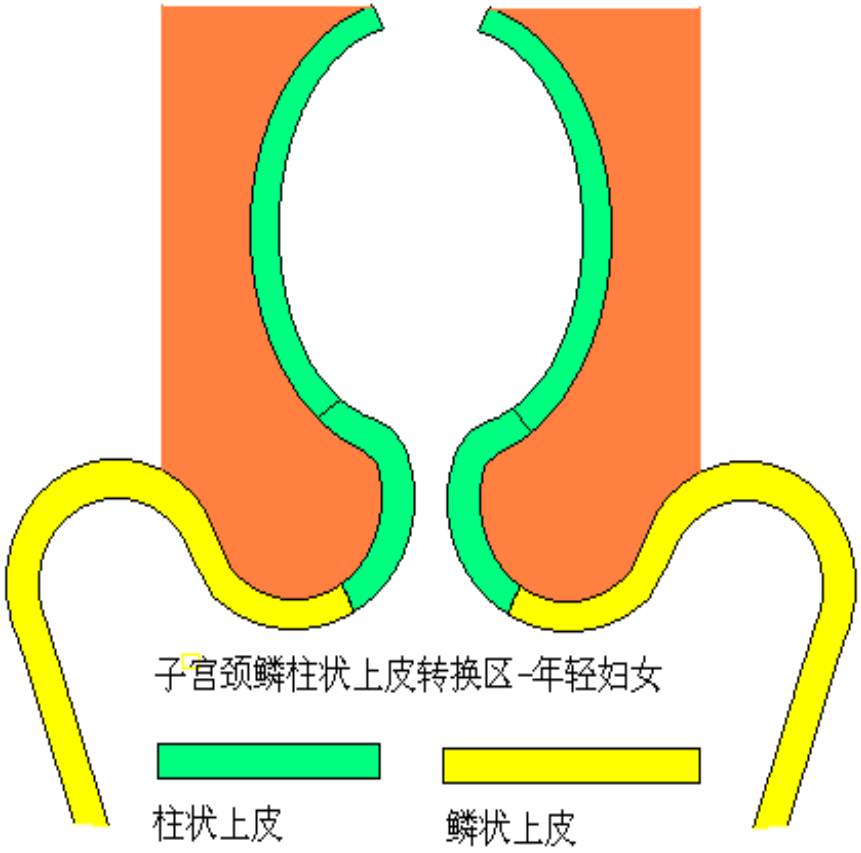
- 醋酸浓度与作用时间、分布情况
- 碘试验的质量

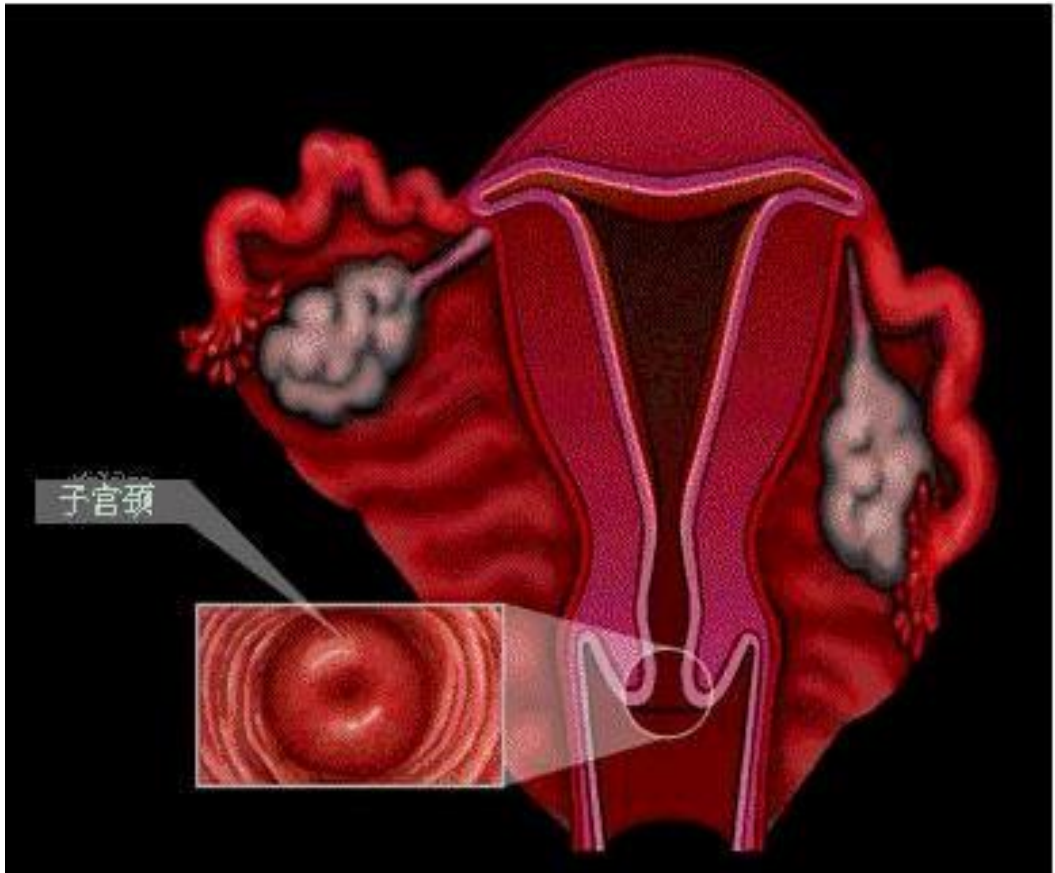
转化区（transformmation zone）

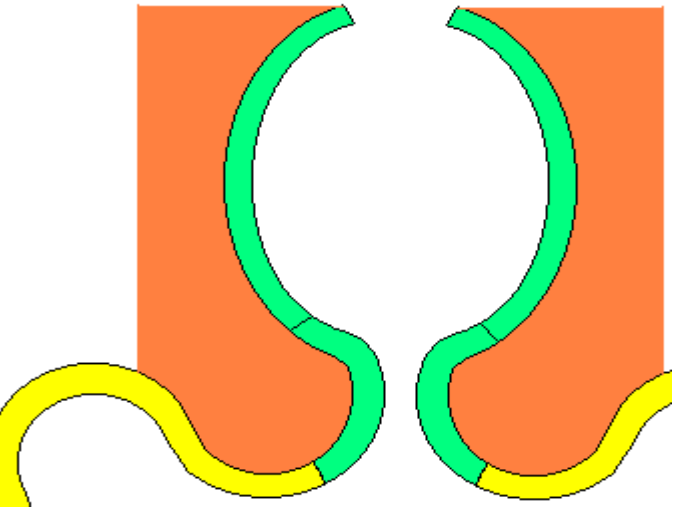
子宫颈柱状上皮已被和正再被新化生的鳞状上皮取代的区域称为转化区。

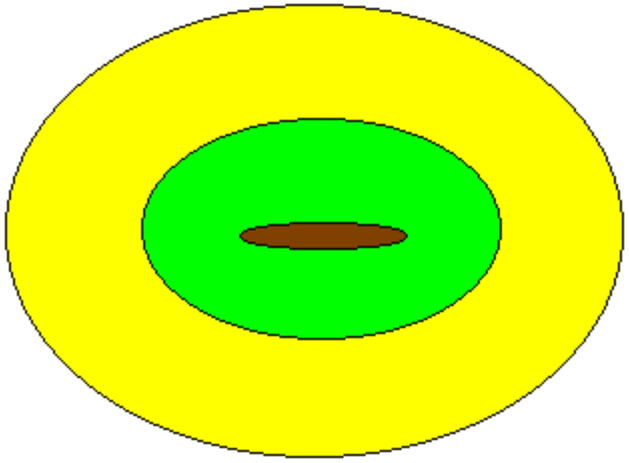
子宫颈组织学

- 子宫颈披覆上皮有两种：子宫颈阴道部分为复层鳞状上皮，子宫颈管内膜为单层柱状上皮。



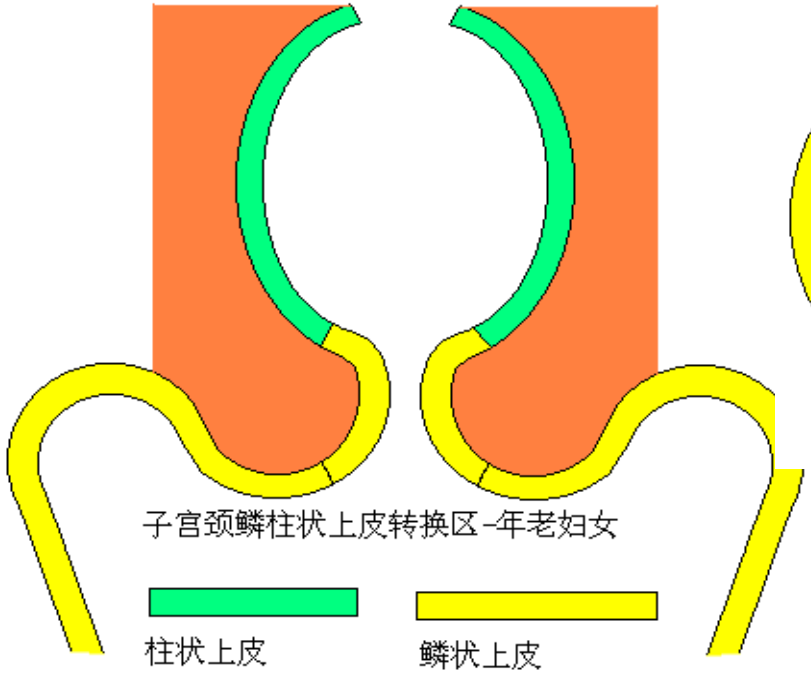


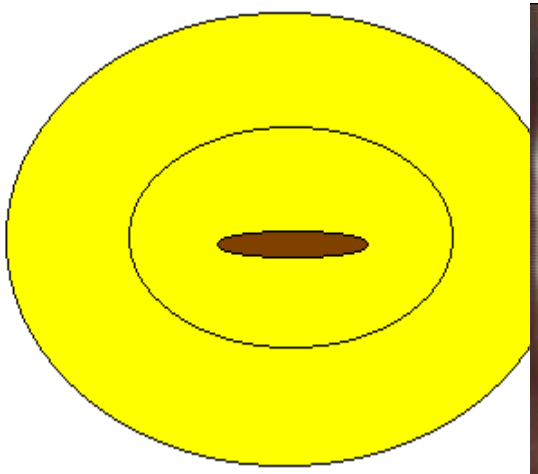




子宫颈鳞柱状上皮转换区-年轻妇女

柱状上皮　　鳞状上皮

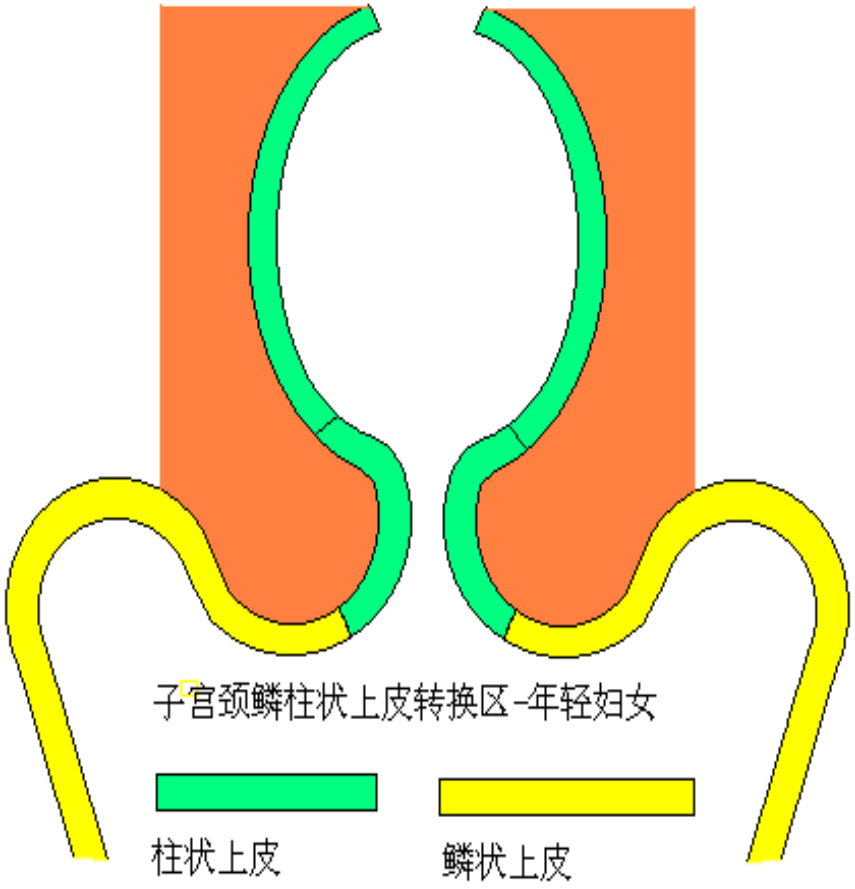




子宫颈鳞柱状上皮转换区-年老妇女

柱状上皮　　鳞状上皮

柱状上皮组织学图像



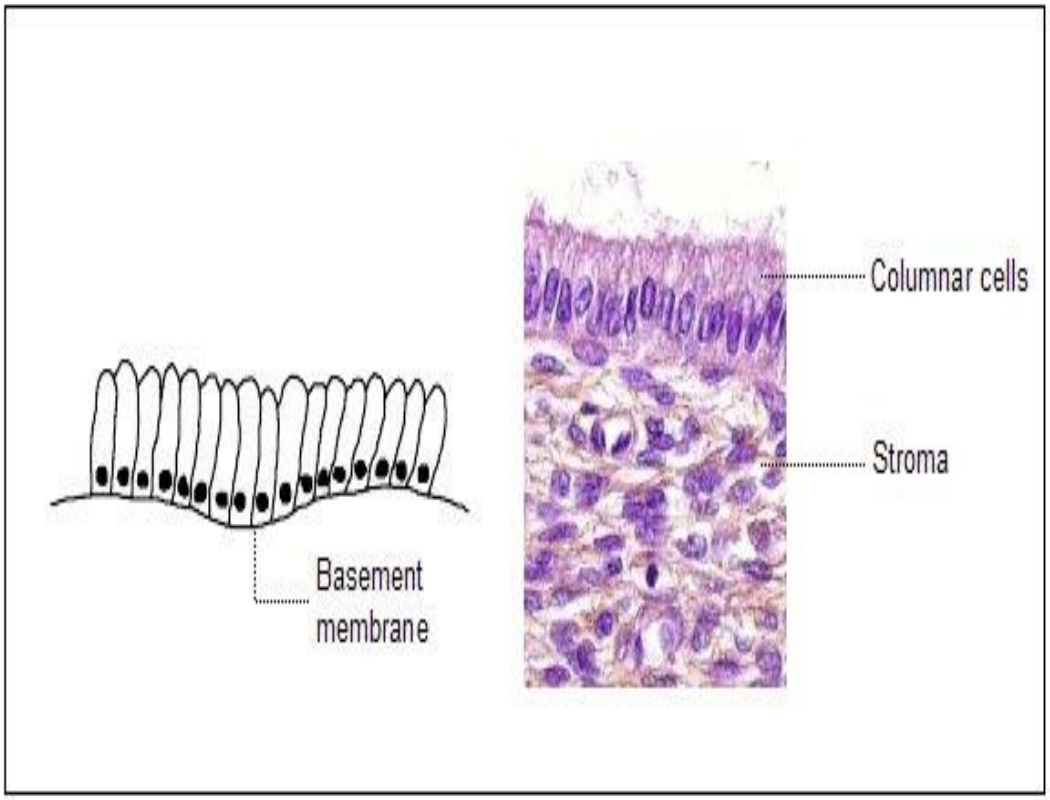
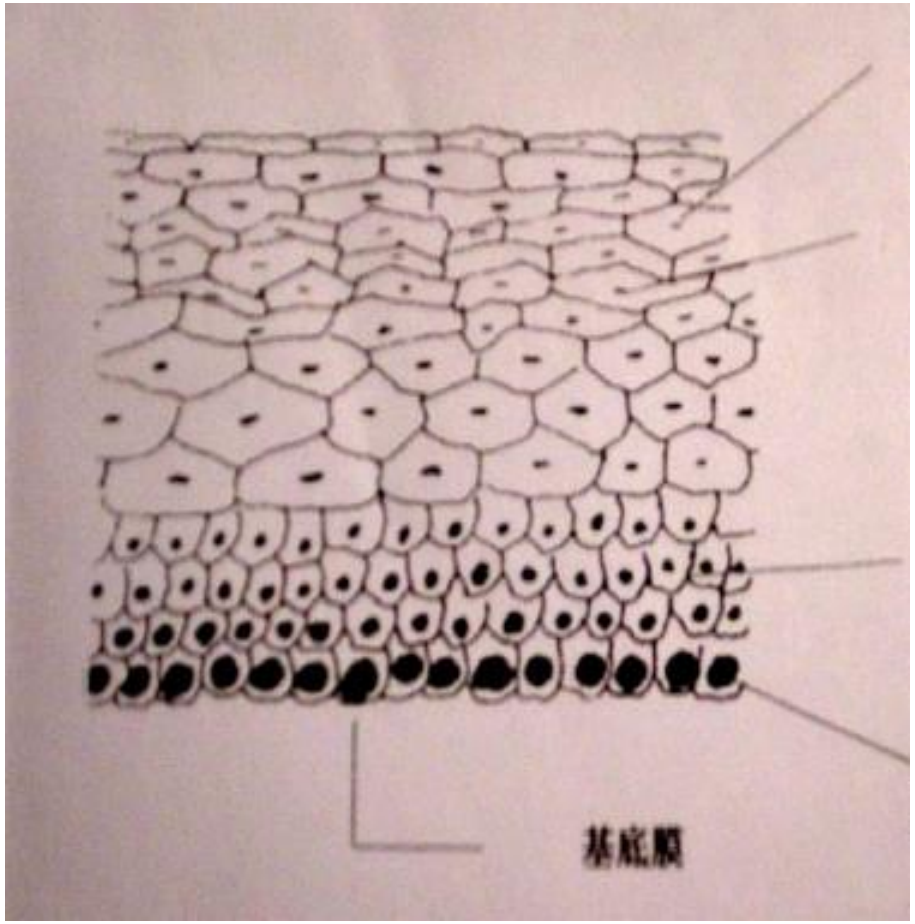


FIGURE 1.3: Columnar epithelium (×40)

复层鳞状上皮的组织学图像



表皮层细胞层

棘细胞层（中间层细胞）

旁基底细胞层

基底细胞层

鳞柱交接squamocolumnar junction SCJ

子宫颈鳞状上皮与柱状上皮交接处。

原始鳞柱交接original squamocolumnar junction

新鳞柱交接 new squmaocolumnar junction(生理性鳞柱交接）

转化区示意图

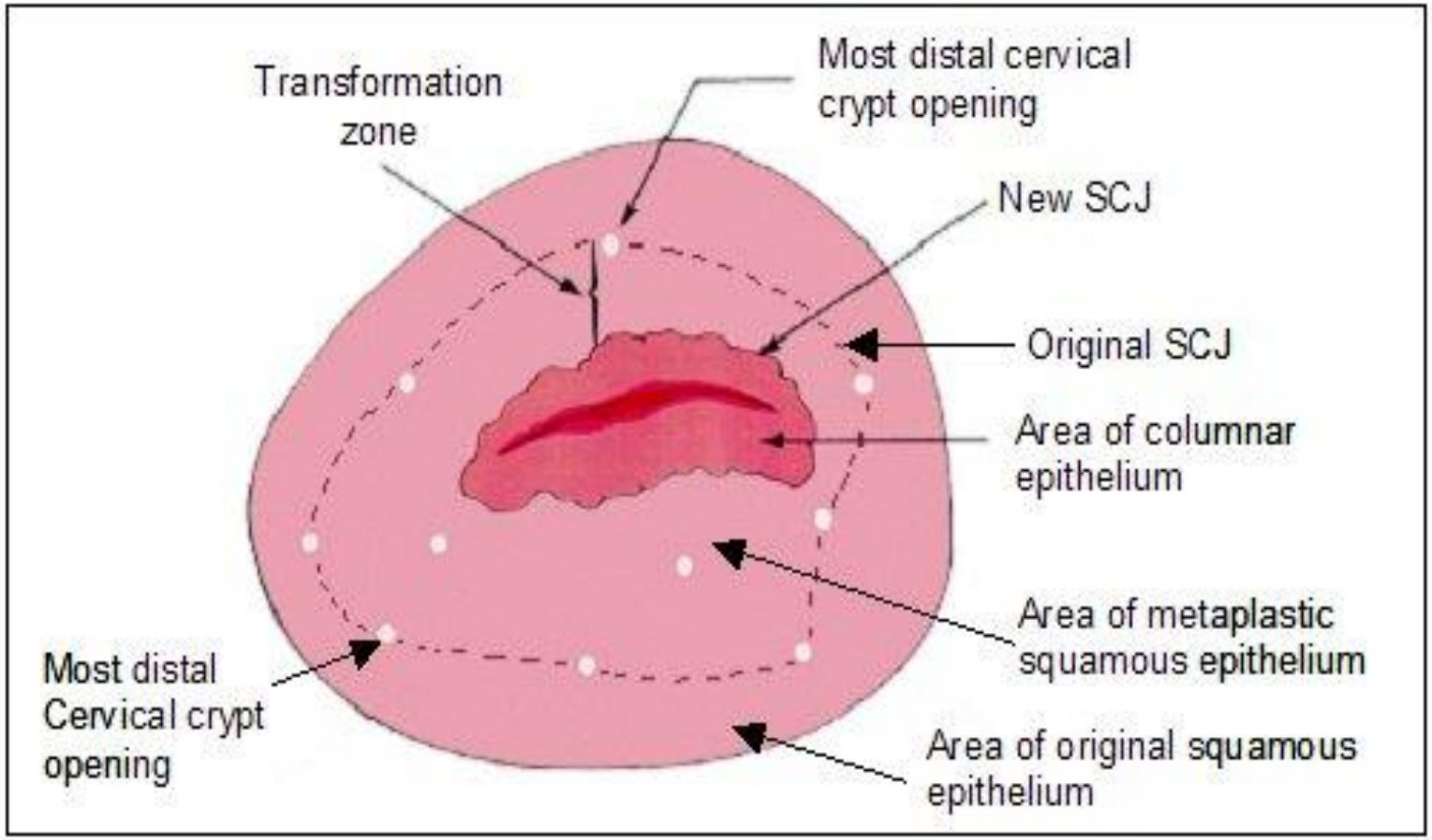


FIGURE 5.1: A method of identifying outer and inner borders of the transformation zone

(SCJ: Squamocolumnar junction)

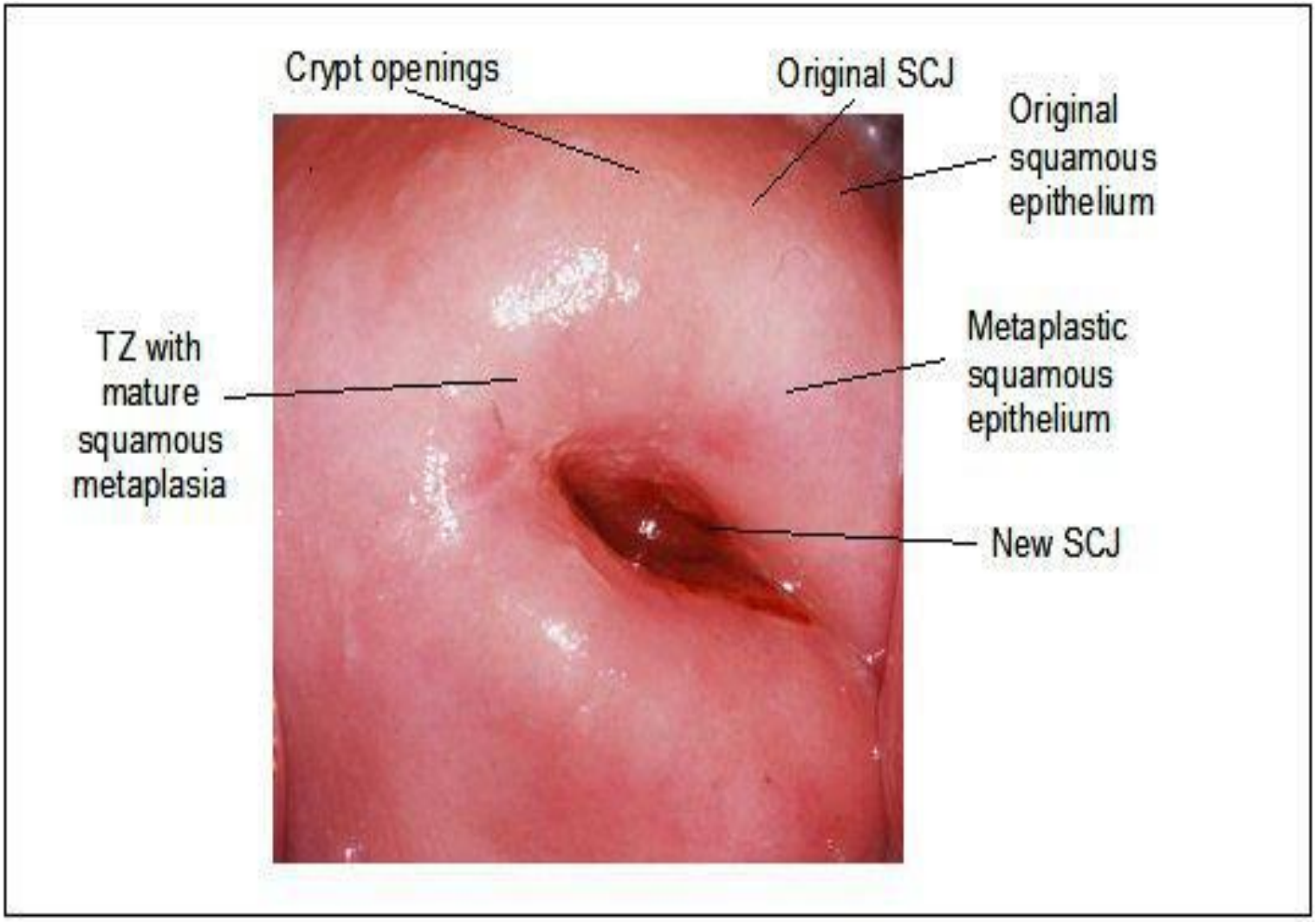
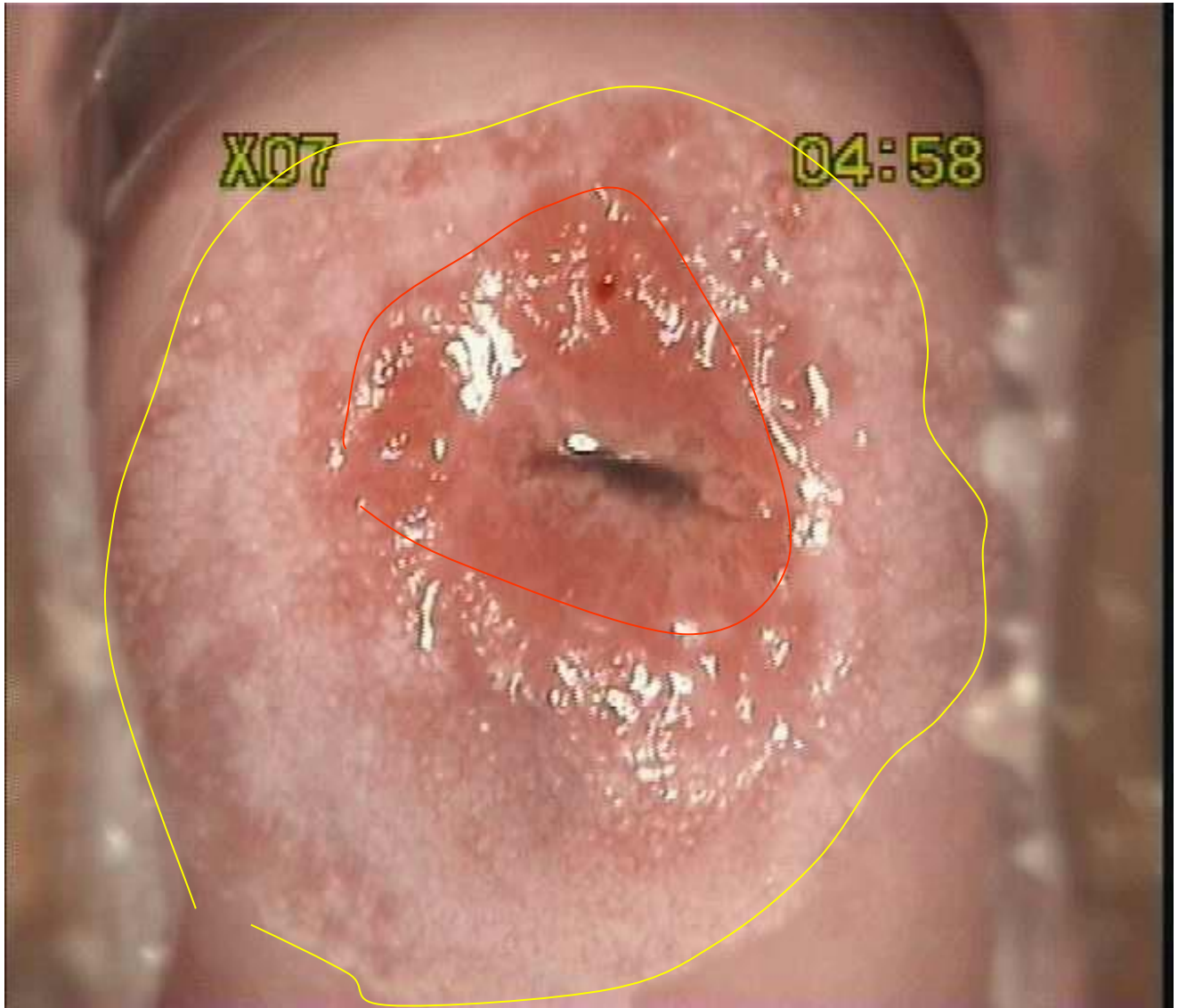


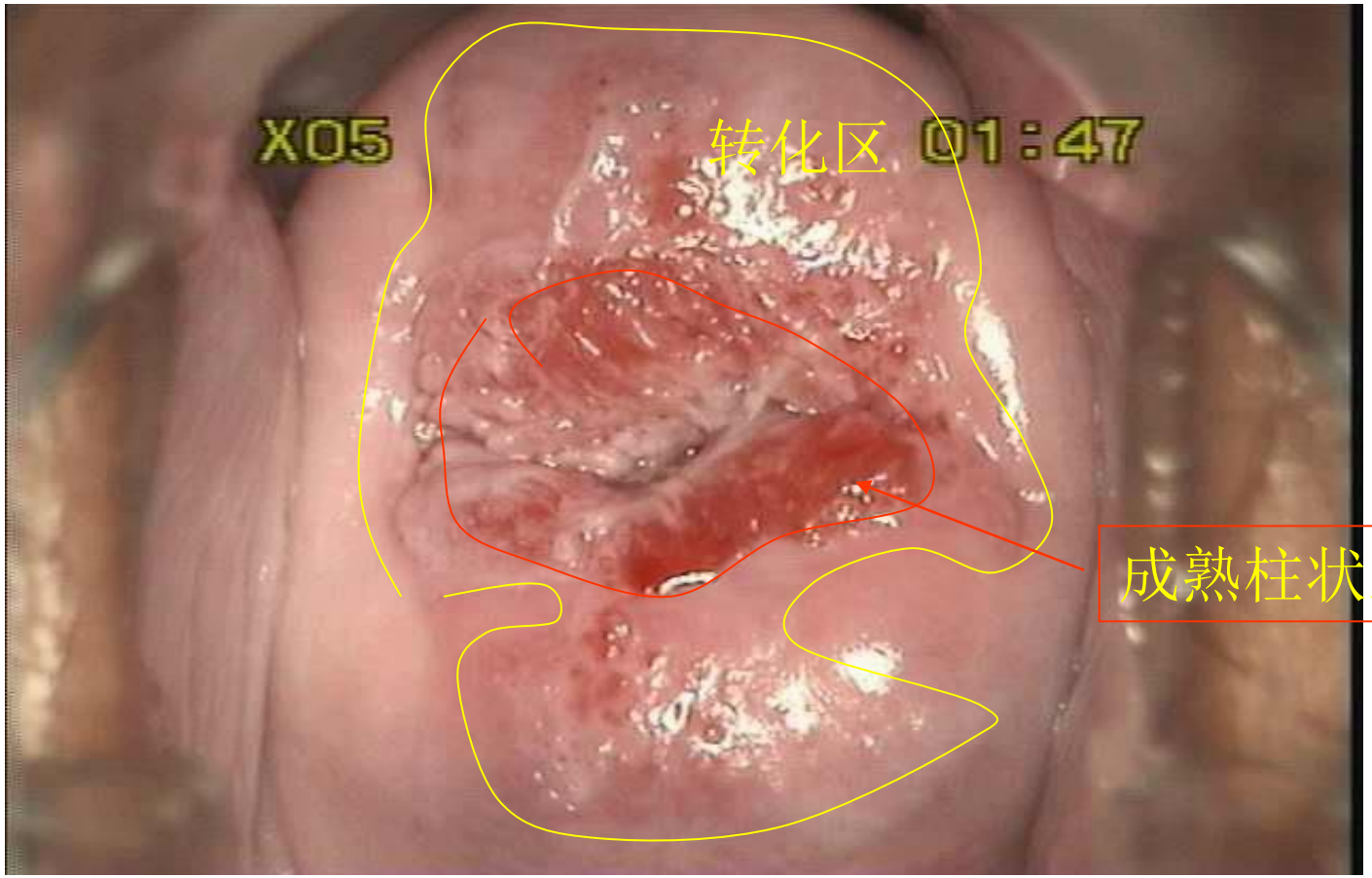
FIGURE 6.1: The entire new squamocolumnar junction (SCJ)is visible, and hence the colposcopic examination is satisfactory; the transformation zone (TZ) is fully visualized. The metaplastic squamous epithelium is pinkish-white compared to the pink original squamous epithelium

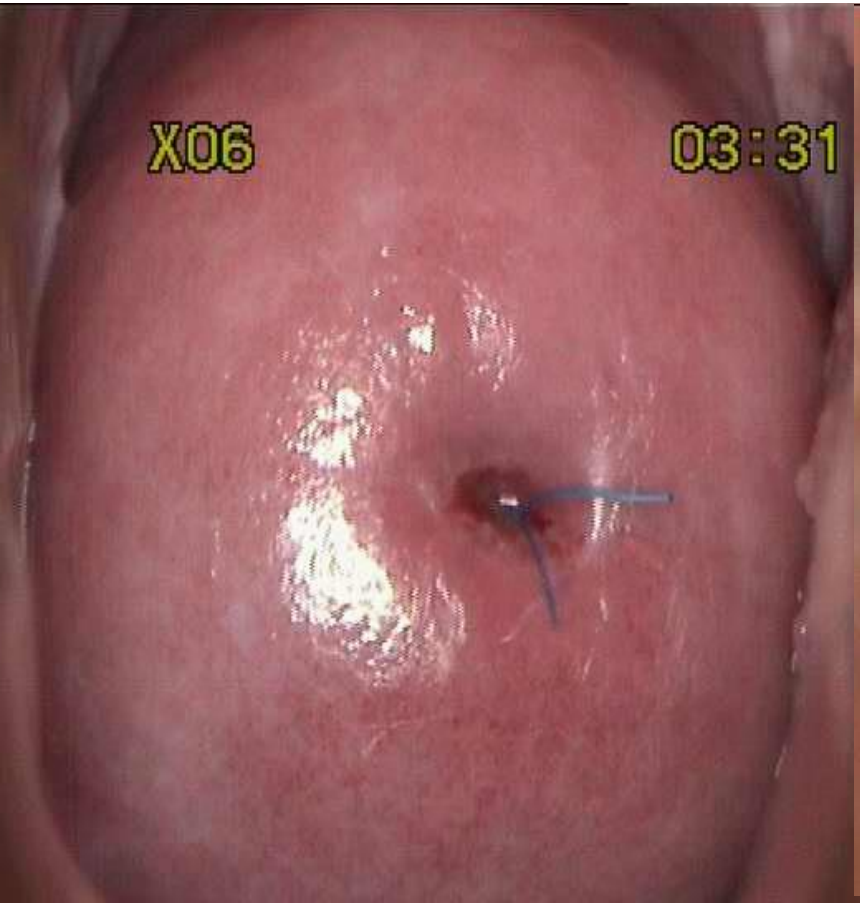
转化区阴道镜图像



红黄色线条间的部份为转化区

转化区阴道镜图像

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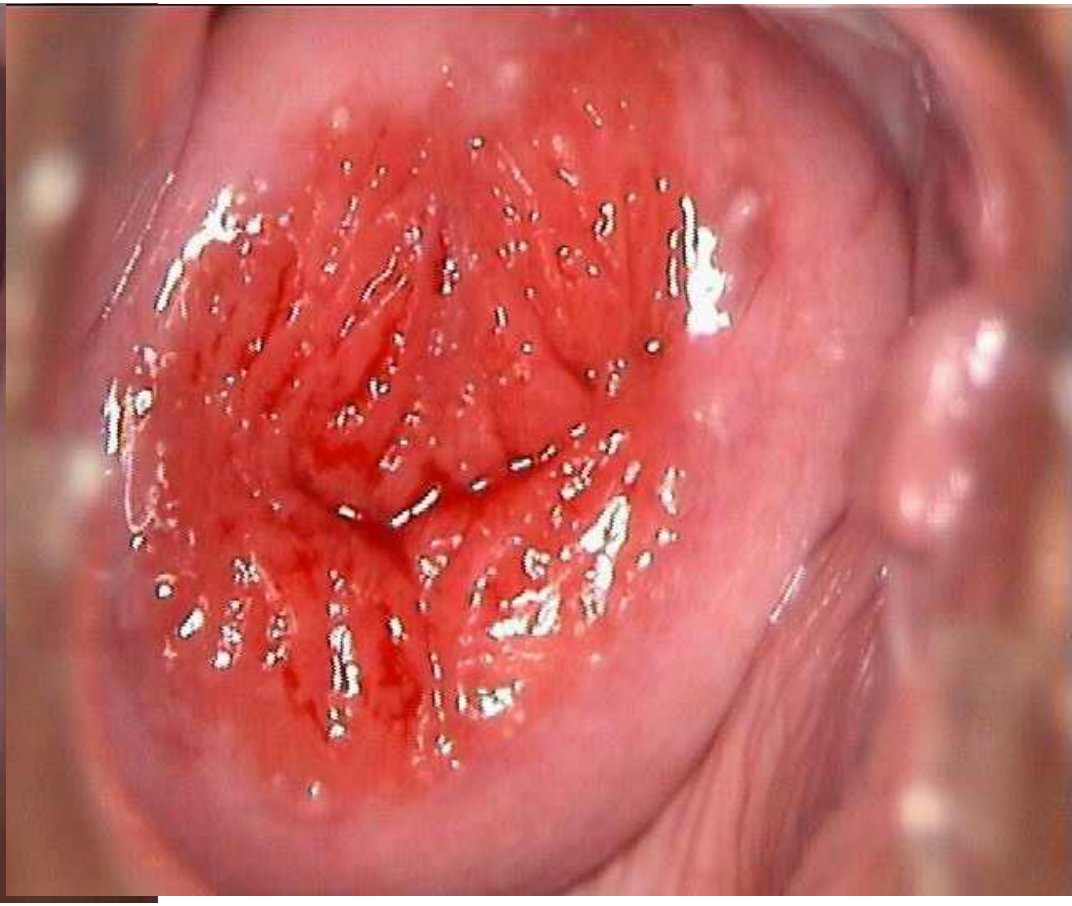
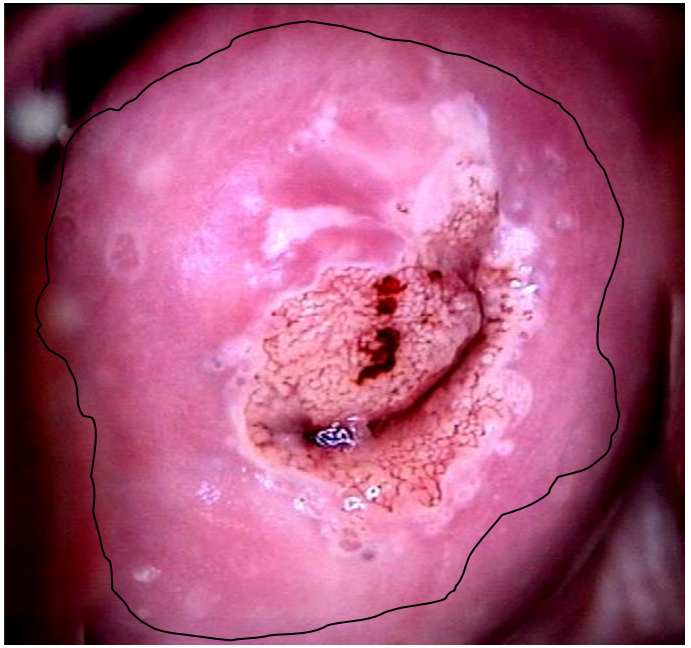


阴道镜检查技术关键

◆技术关键-识别转化区（TZ）

- TZ 定义 新旧鳞柱交界之间的区域
- TZ CIN和宫颈癌好发部位
- 阴道镜检查的重点区域



* 阴道镜学者的基本功

阴道镜检查技术关键

◆技术关键-识别异常增生病灶

异常阴道镜图像特征：

- 醋白上皮
- 点状血管
- 镶嵌
- 异型血管

FIGURE 6.7: The colour changes in the columnar epithelium after the application of 5% acetic acid. The columnar villi turn white, obliterating the red colour of the columnar epithelium.

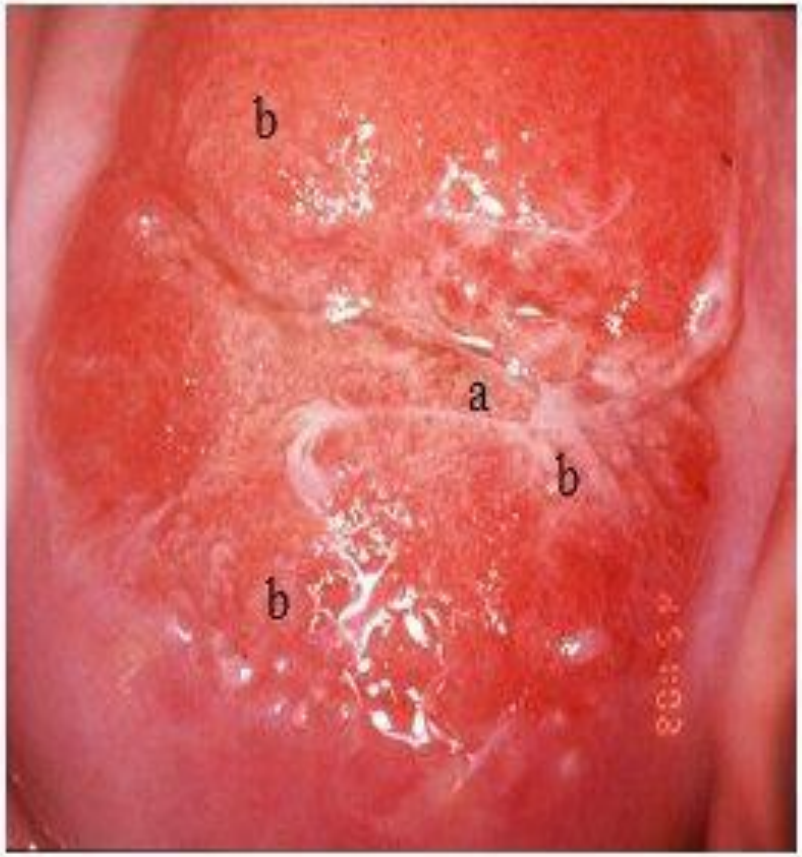


FIGURE 6.8: The earliest colposcopic changes in immature squamous metaplasia (after application of 5% acetic acid) in which the tips of the columnar villi stain white (a) and adjacent villi start fusing together (b).

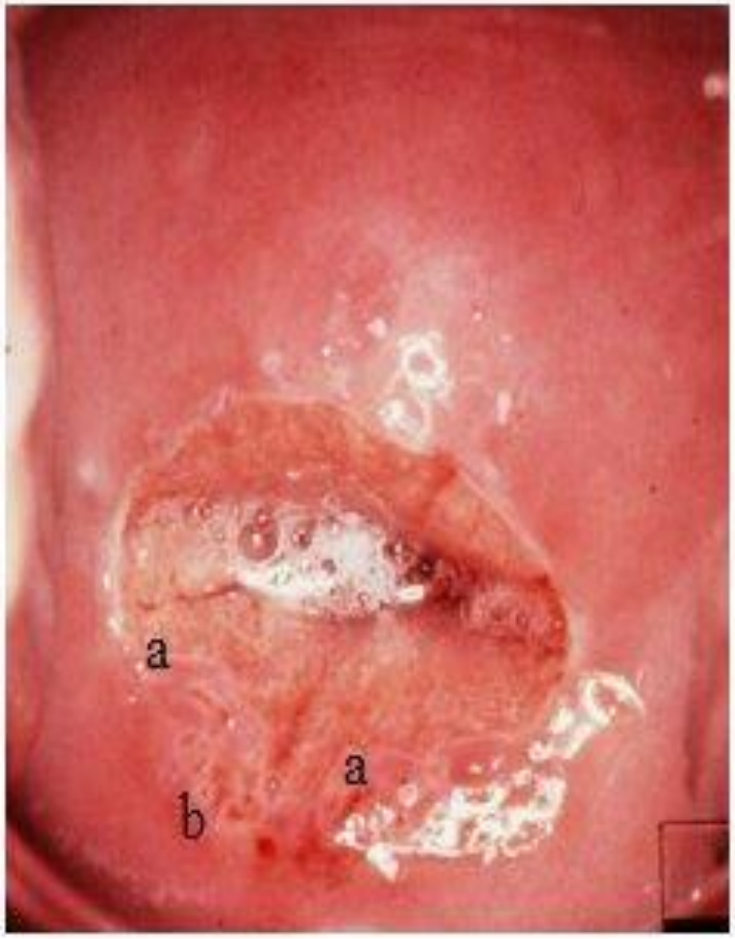


FIGURE 6.11: The prominent white line corresponds to the new squamocolumnar junction and tongues of immature squamous metaplasia (a) with crypt opening at 4-8 o'clock positions (b) (after application of 5% acetic acid).

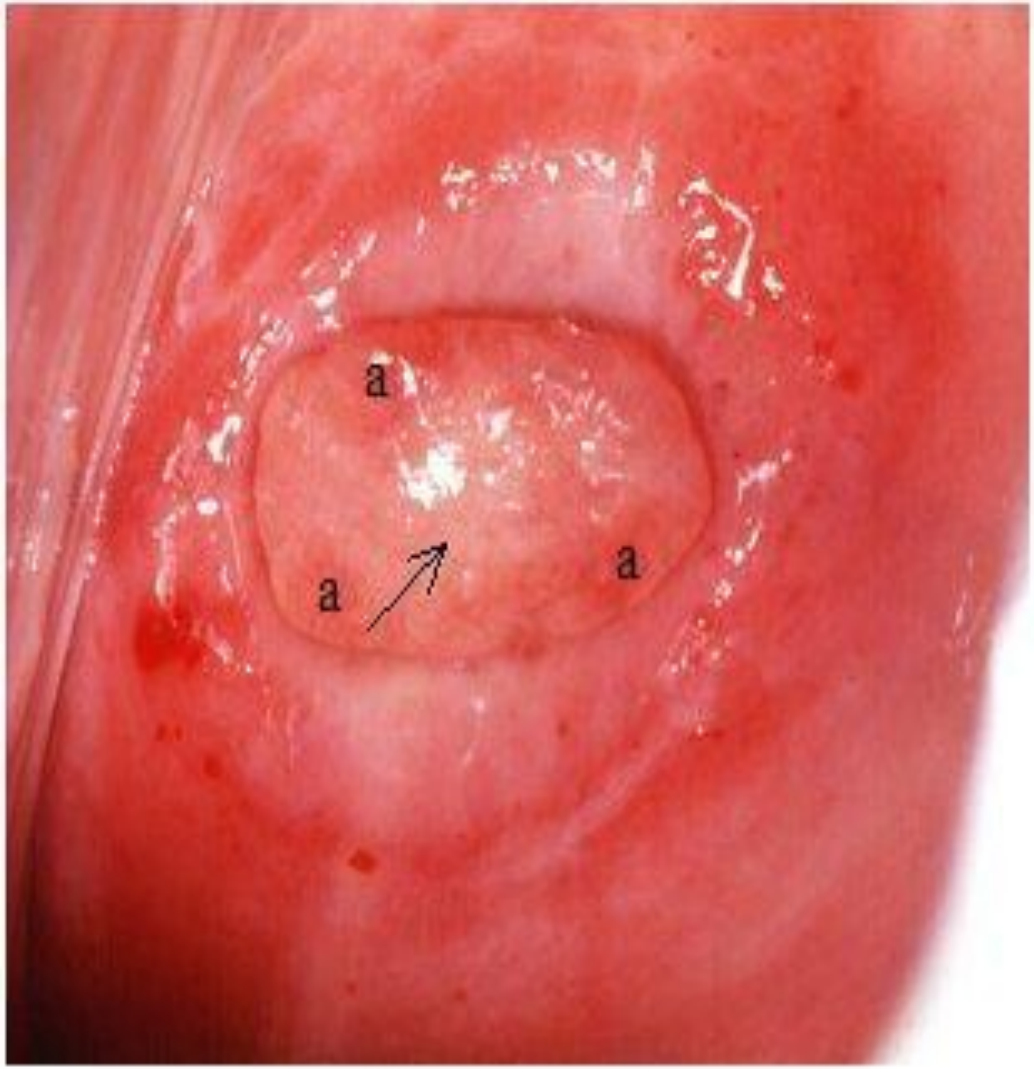


FIGURE 6.15: Immature squamous metaplastic epithelium (narrow arrow) on the polyp with intervening areas of columnar epithelium (a), after application of 5% acetic acid.

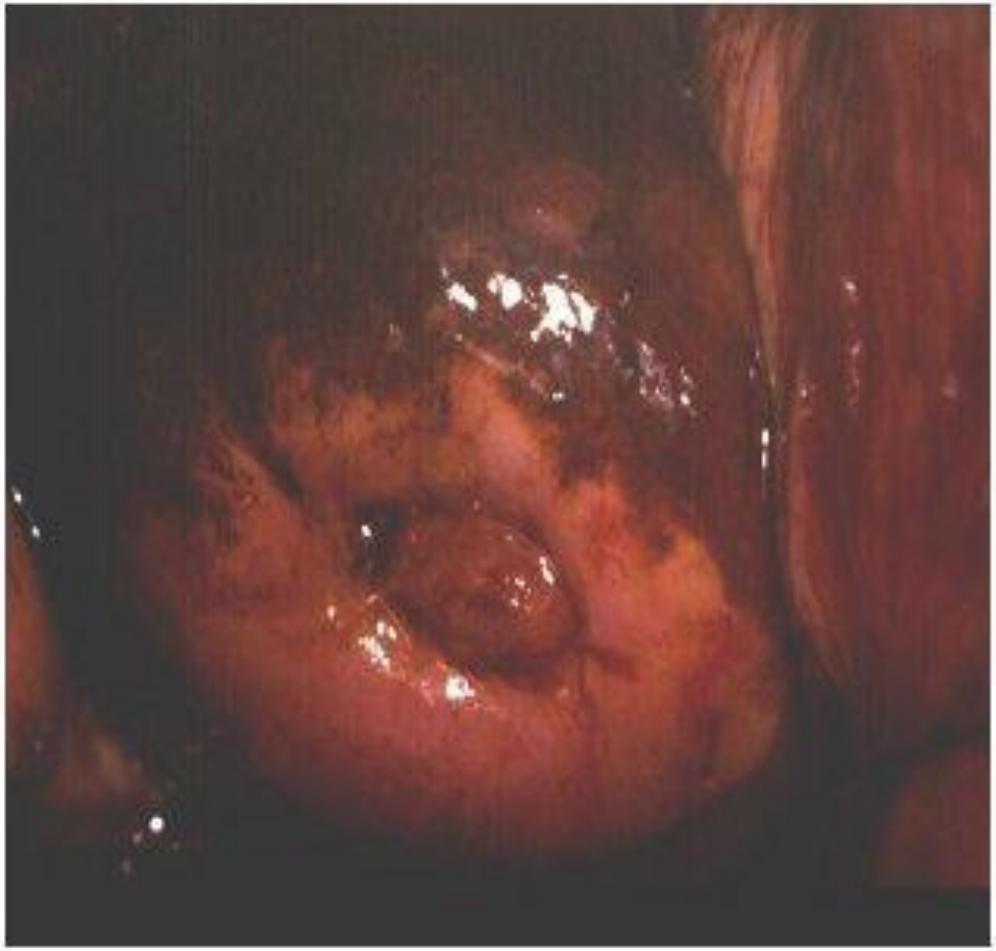
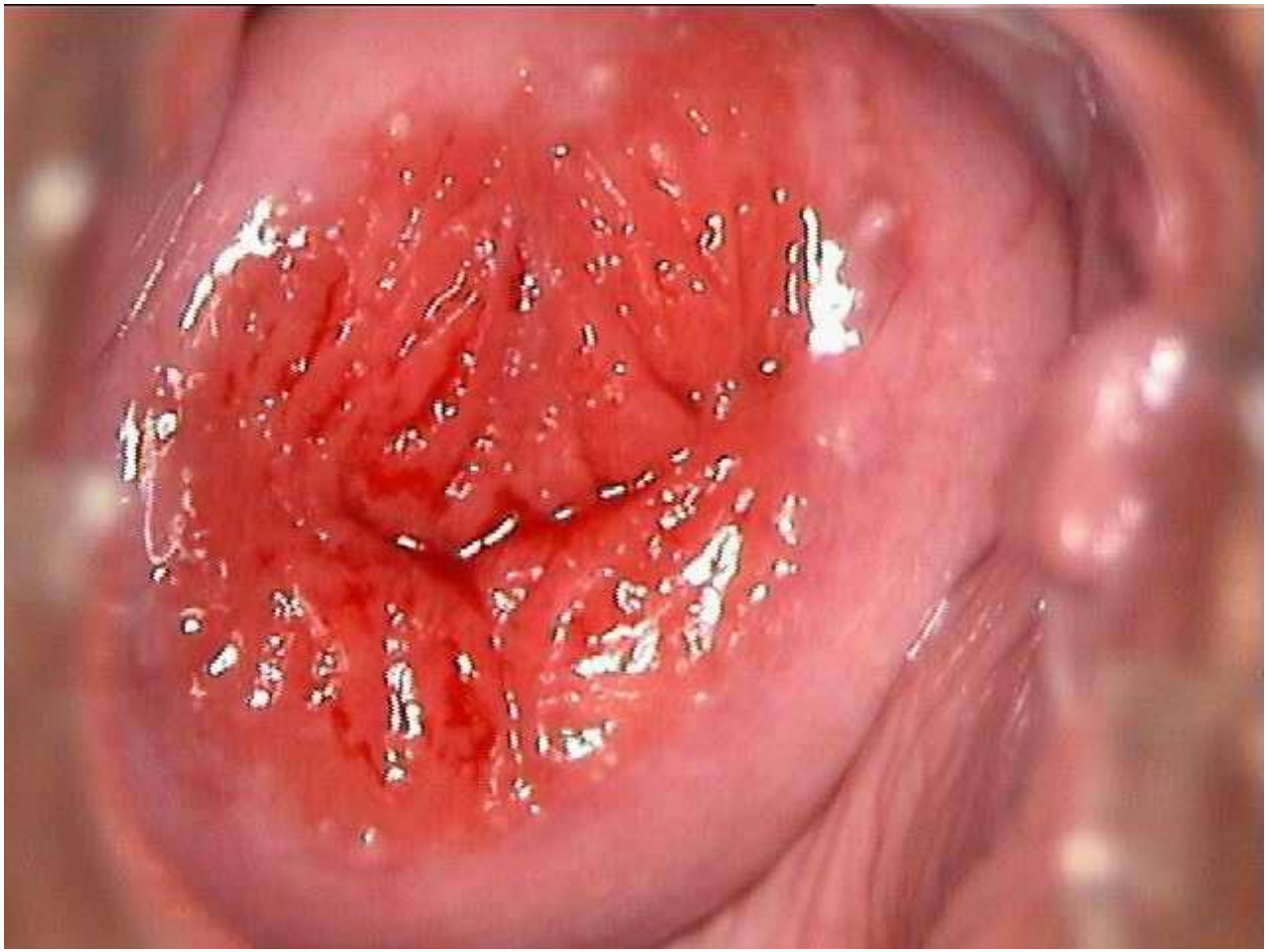


FIGURE 6.18: After application of Lugol's iodine solution, the endocervical polyp and the immature squamous metaplasia surrounding the os partially take up iodine.

FIGURE 7.3: Coarse punctation before and after application of acetic acid



子宫颈鳞柱状上皮的分布规律

子宫颈转化区概念

子宫颈柱状上皮已被或正在被新生鳞状上皮所替代的区域称为转化区，位于原始鳞-柱交界和生理性鳞柱交界之间。

临床意义：**90%**以上的子宫颈癌发生在转化区，是阴道镜检查的主要和重要部位。

转化区示意图

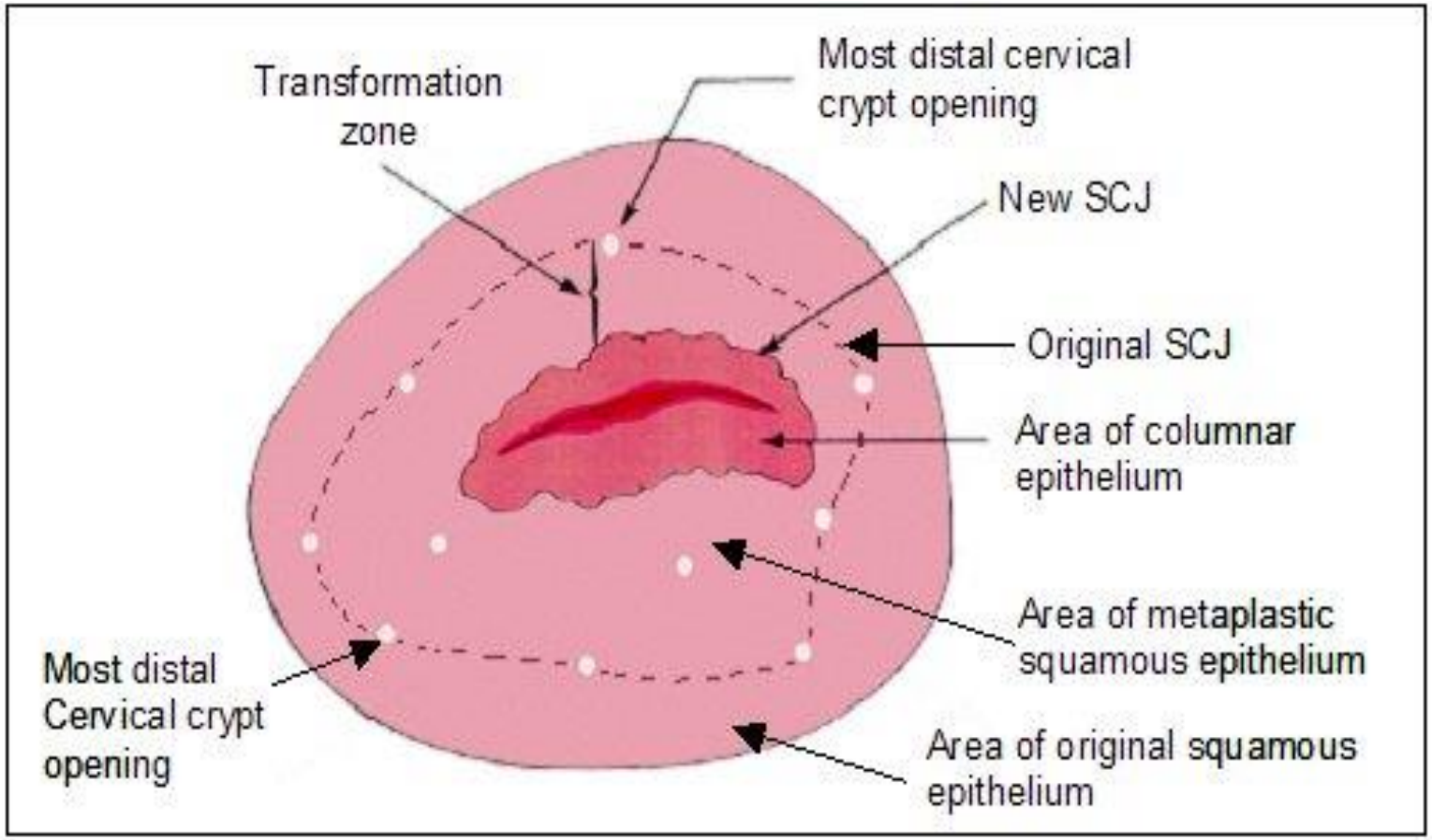
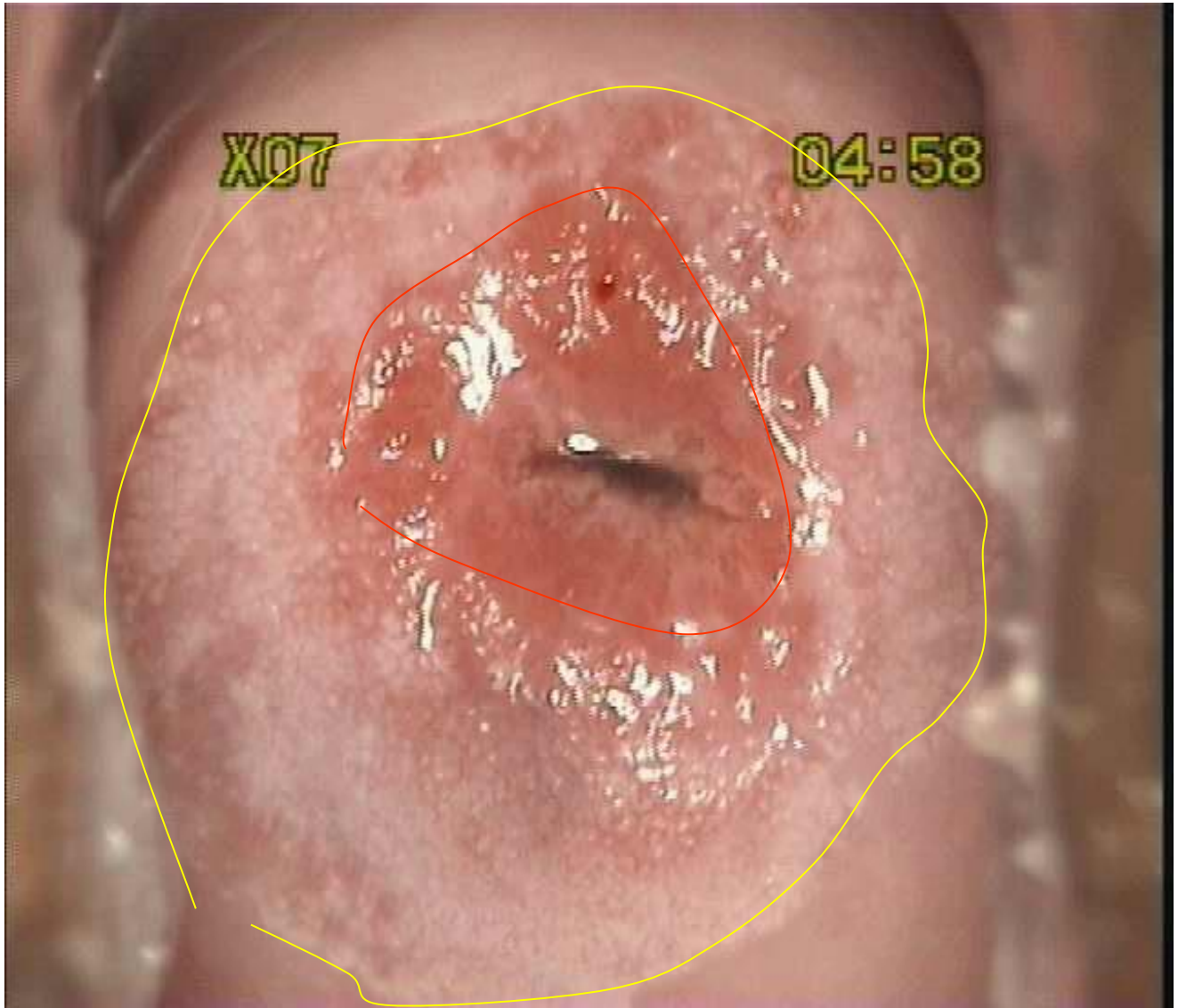


FIGURE 5.1: A method of identifying outer and inner borders of the transformation zone

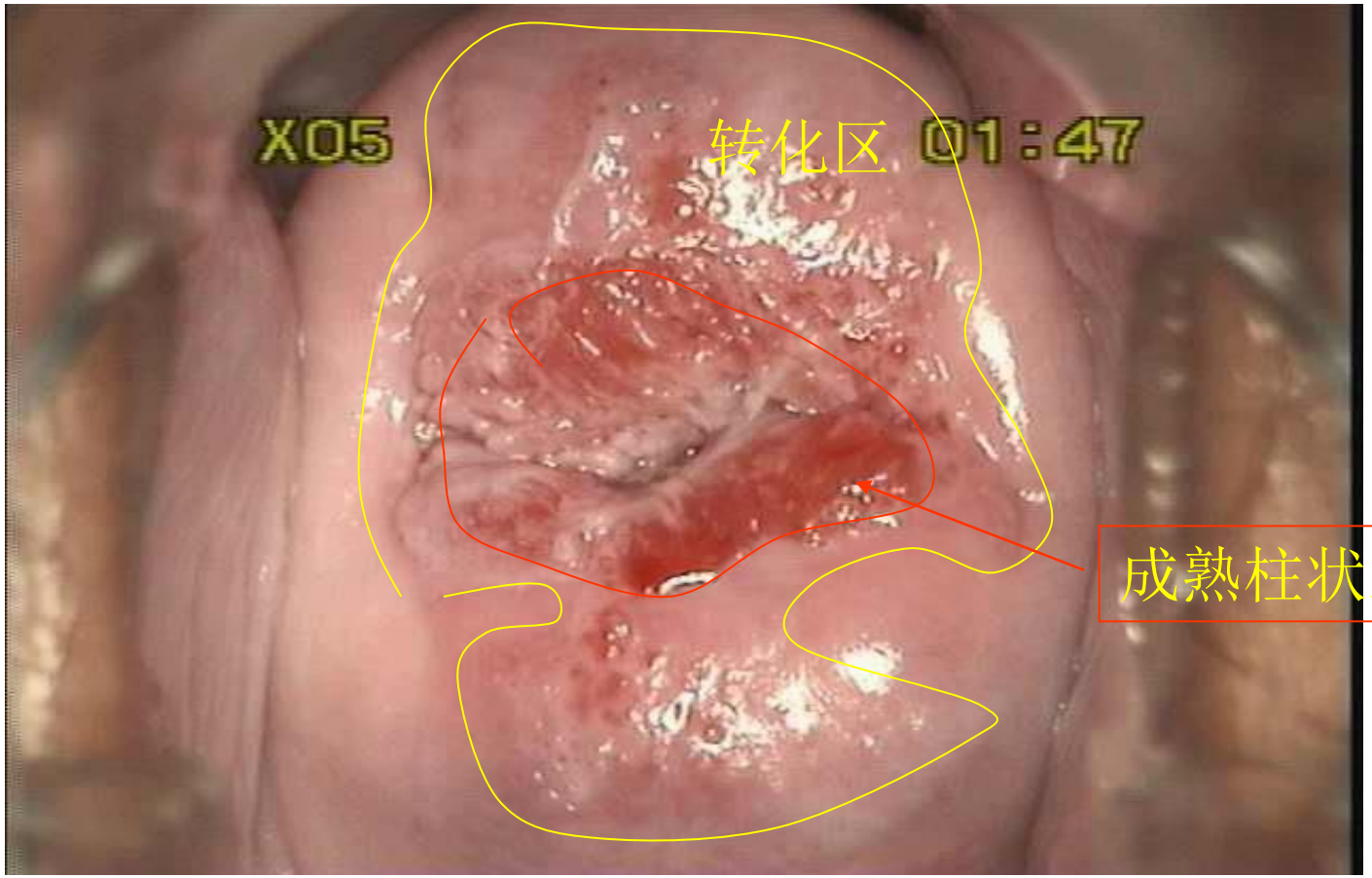
(SCJ: Squamocolumnar junction)

转化区阴道镜图像

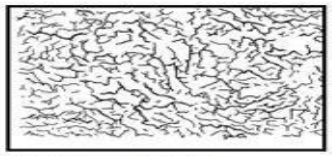


红黄色线条间的部份为转化区

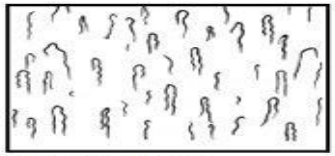
转化区阴道镜图像



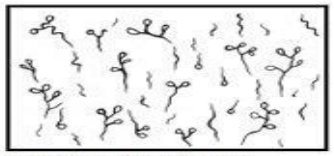
正常血管



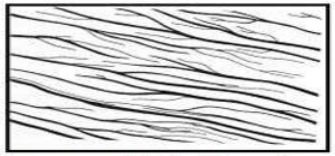
Network capillaries



'Hairpin' capillaries

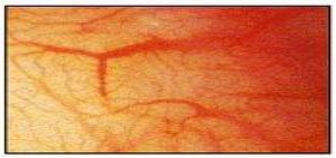


'Staghorn'- like vessels



Long, parallel blood vessels

Regular vascular network



Long, regular branching vascular tree with gradual decrease in calibre

Blood vessels showing regular branching

FIGURE 6.2: Normal vascular patterns.

异型血管

FIGURE 8.5: Atypical vessel patterns

正常血管

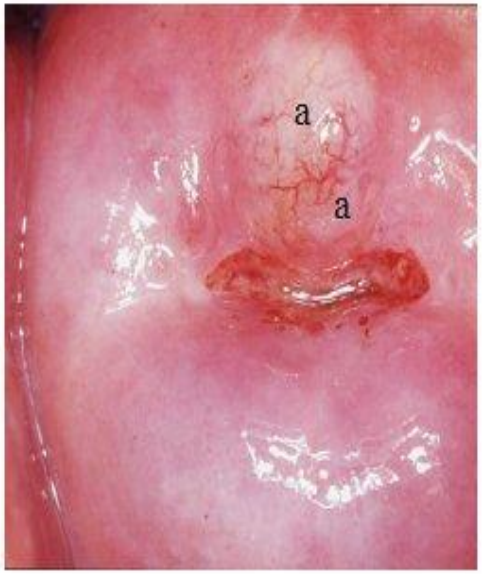


FIGURE 6.3: Nabothian cyst with regularly branching tree-like vessels (a).

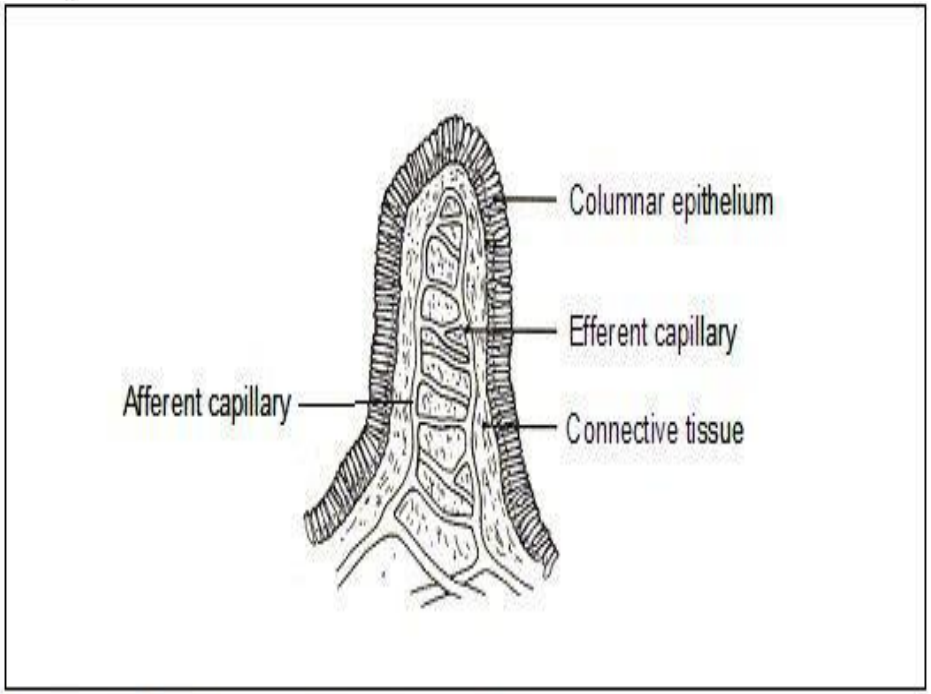


FIGURE 6.4: Capillary network in columnar villi

- 根据病变程度CIN又分为三个级别：
- CIN I 级：mild dysplasia 轻度不典型增生 核质比稍大 细胞极性正常
- CIN II级：moderate dysplasia 中度不典型增生
- CIN III级：severe dysplasia + CIS 重度+原位癌
- 各种级别都有发展为浸润癌的趋向，一般说来，级别越高，发展为浸润癌的机会越多，据有关资料统计轻中度有10%~15%，重度75%机会发展为癌（并非固定不变也可逆转）。

CIN病变的镜下表现

- CIN含有大量的细胞核，核蛋白在醋酸作用下会出现可逆性凝固反应。因而影响上皮的透光性，阻止光线透过上皮层，造成不容易看到皮下血管，从而形成白色上皮。
- CIN 病变由于缺乏糖原，碘试验后呈现芥末黄。

CIN变化的阴道镜图像

1、醋酸白色上皮，根据其颜色、透明度、边界、表面轮廓的特征进行高低度鉴别。

2、血管的形状、数量、分布与醋白的关系进行高低度鉴别。

3、根据碘阴性区域与醋酸白的重合性、边界来进行高低度鉴别。

4、根据特征现象出现的区域来明确组织与CIN病变特征的相关性。

Punctuation & mosaic

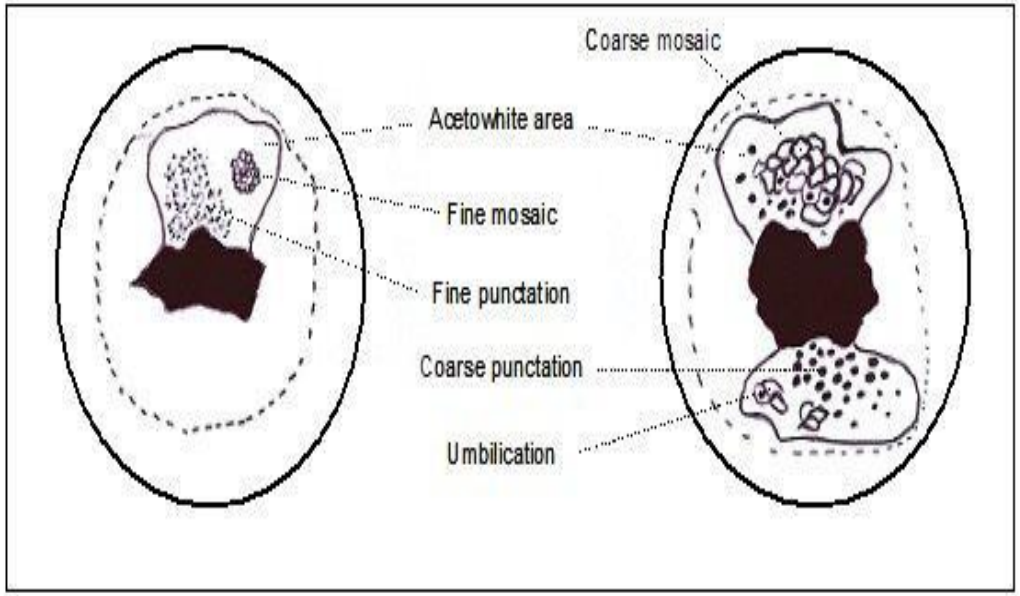


FIGURE 7.1: A schematic representation of punctation and mosaics.

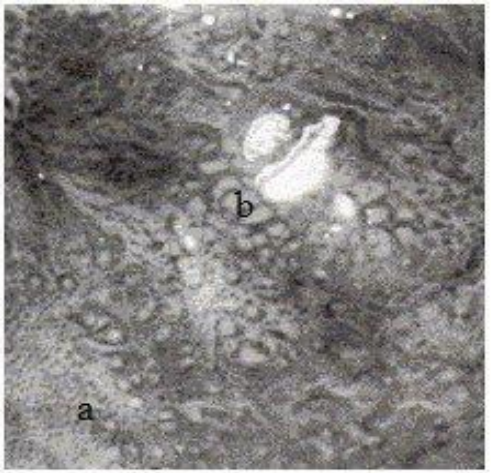


FIGURE 7.2a: Fine punctation (a) and coarse mosaic (b) seen afterapplication of normal saline.

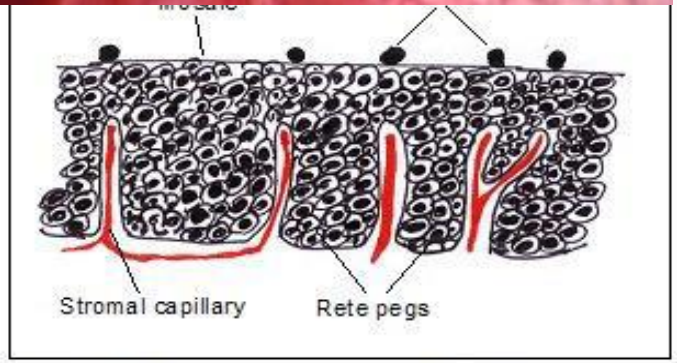


FIGURE 7.2b: Schematic diagram to show the rete pegs and the stromal capillaries which on end-on view appear as punctations.

Course punctuation

FIGURE 7.3: Coarse punctation before and after application of acetic acid

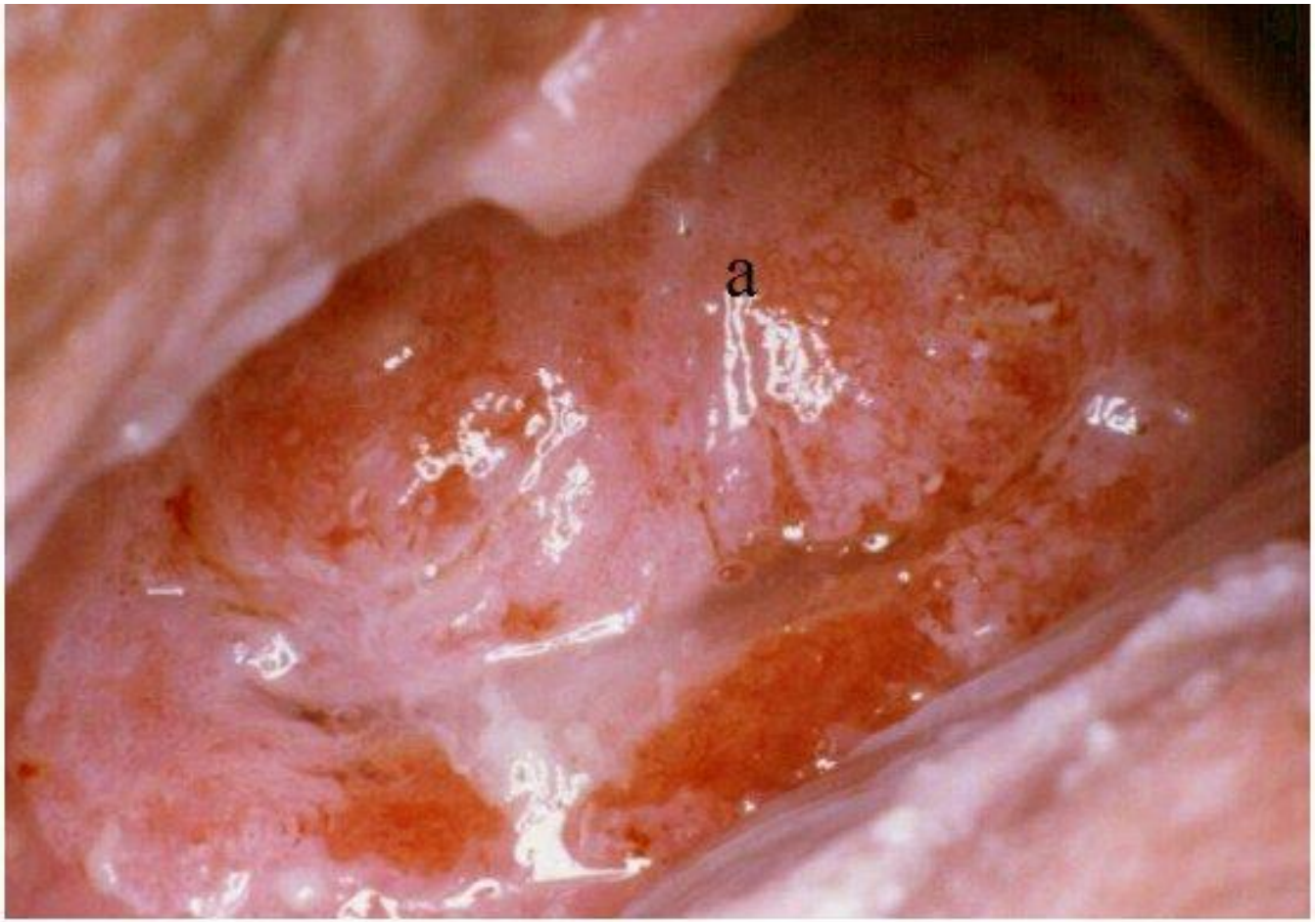


FIGURE 7.24: Coarse mosaics (a) in a CIN 3 lesion.

阴道镜图像示例

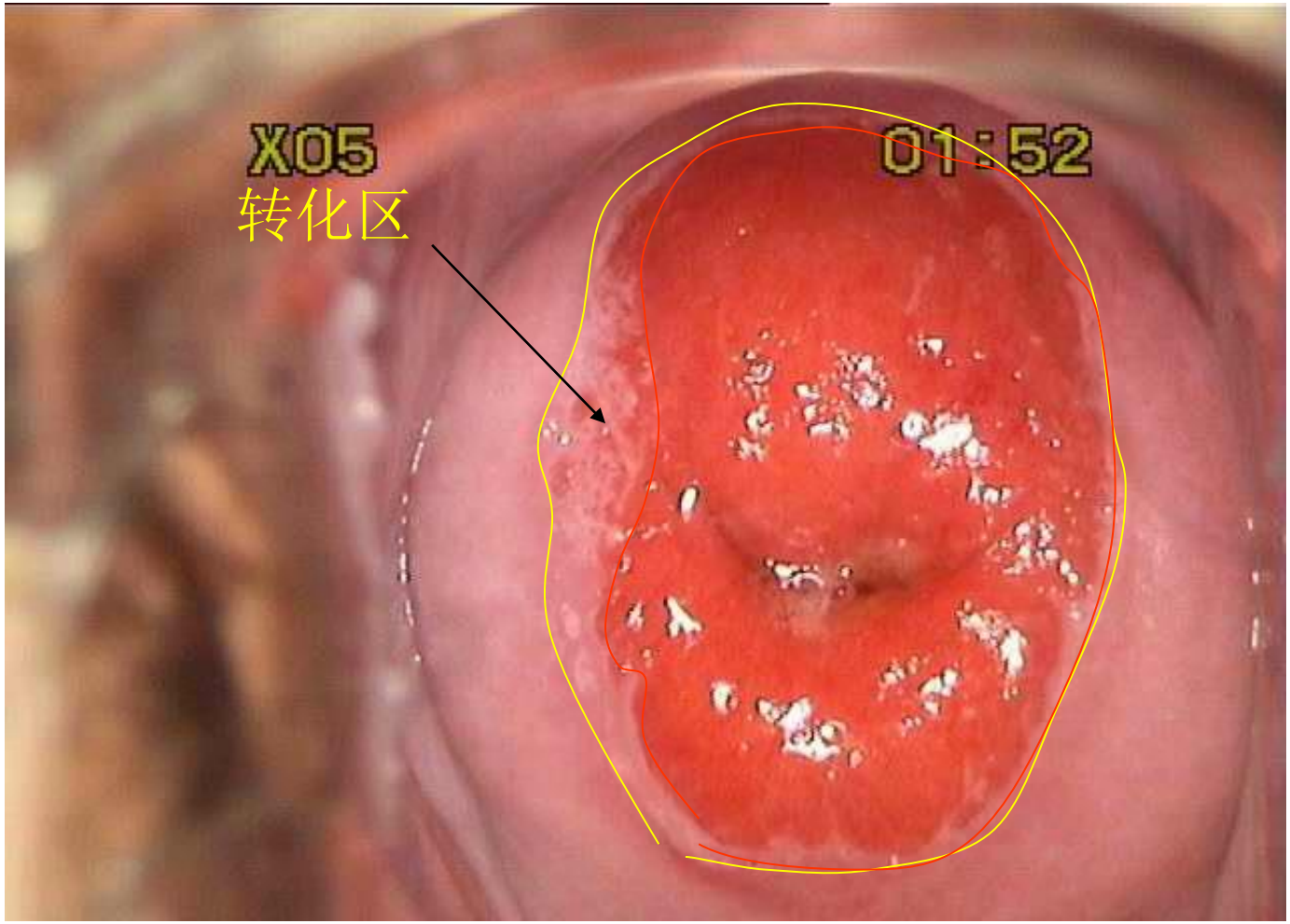
阴道镜检查的部位在哪？

得出阴道镜检查的第一诊断：

满意的阴道镜检查

不满意的阴道镜检查

FIGURE 6.6: Postmenopausal cervix: The epithelium is pale, brittle and lacks lustre, showing sub-epithelial petechiae (a). Squamocolumnar junction is not visible.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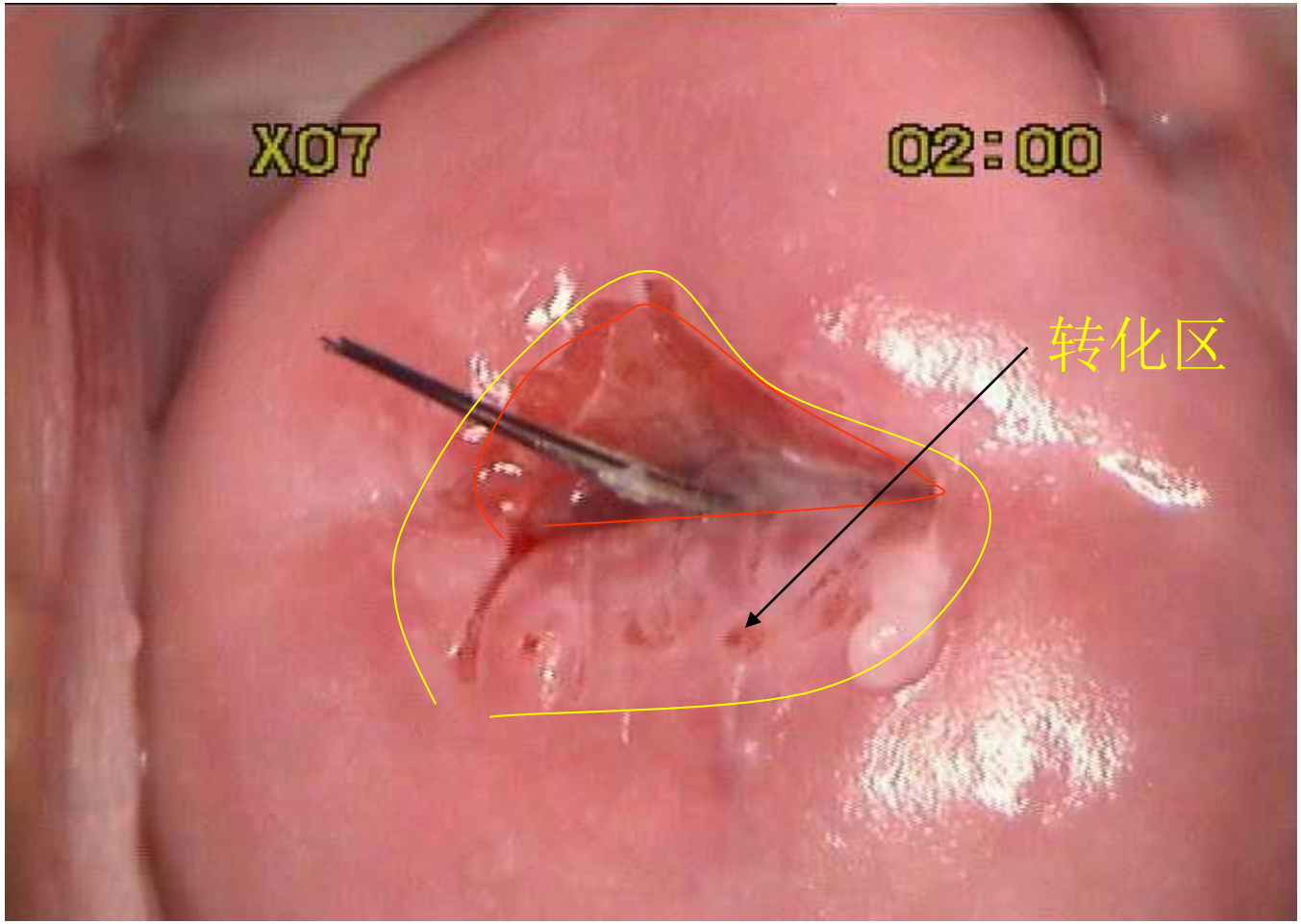
转化区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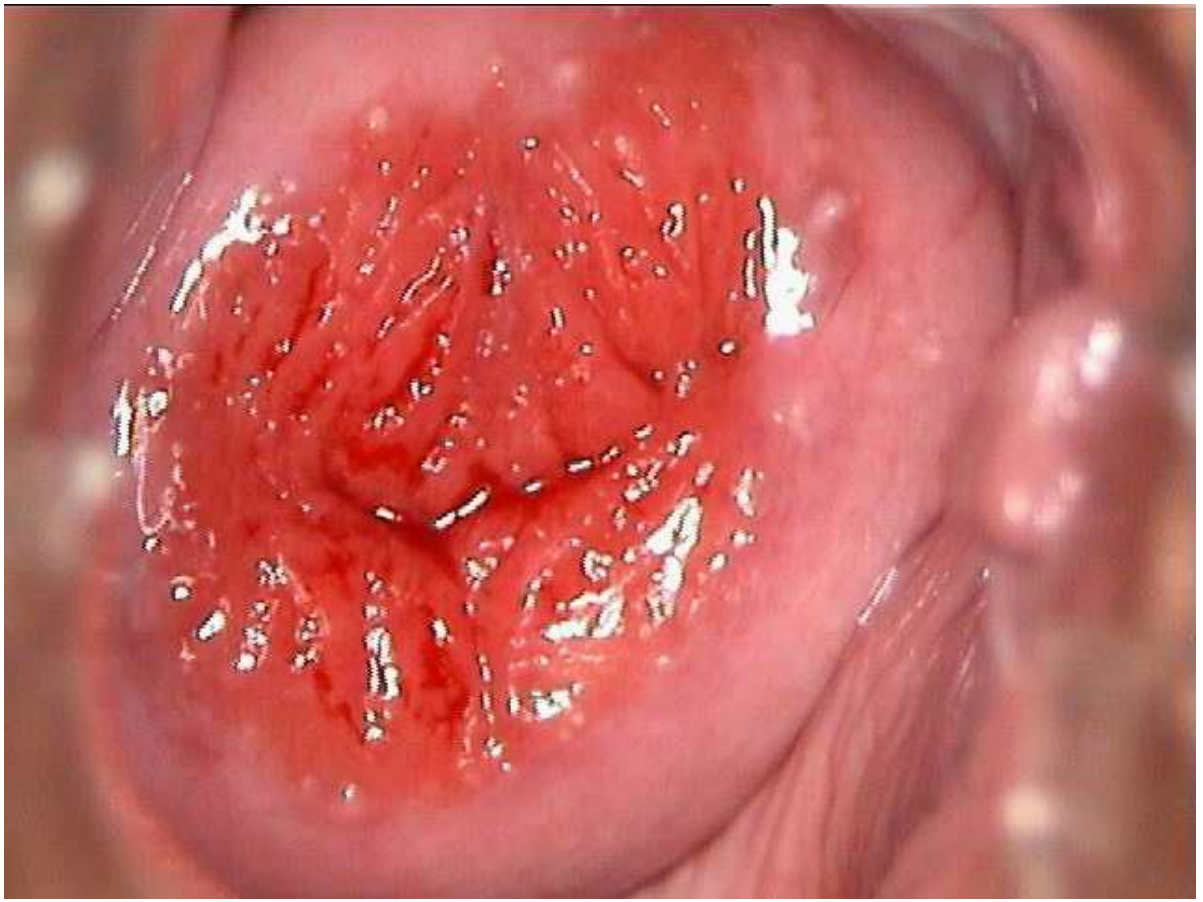
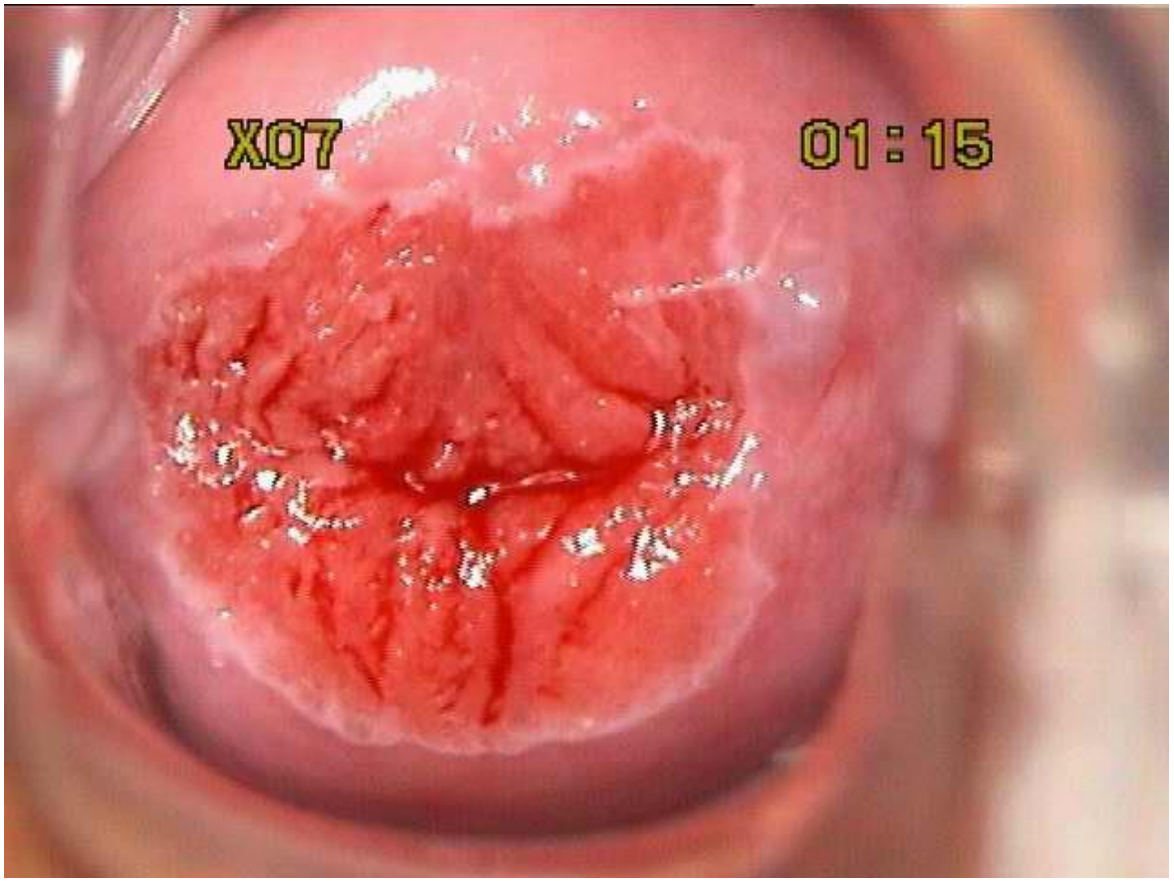
转化区

宫颈外翻

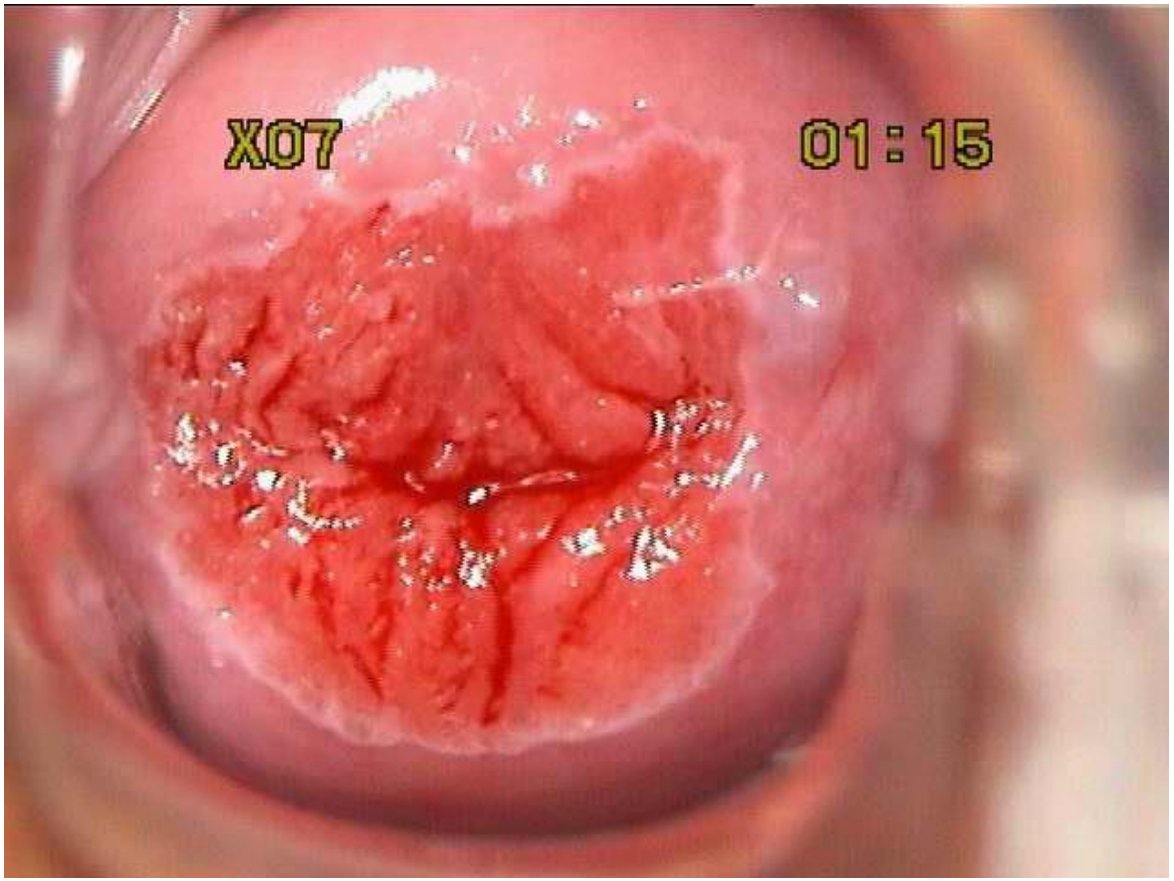


宫颈外翻/绿光

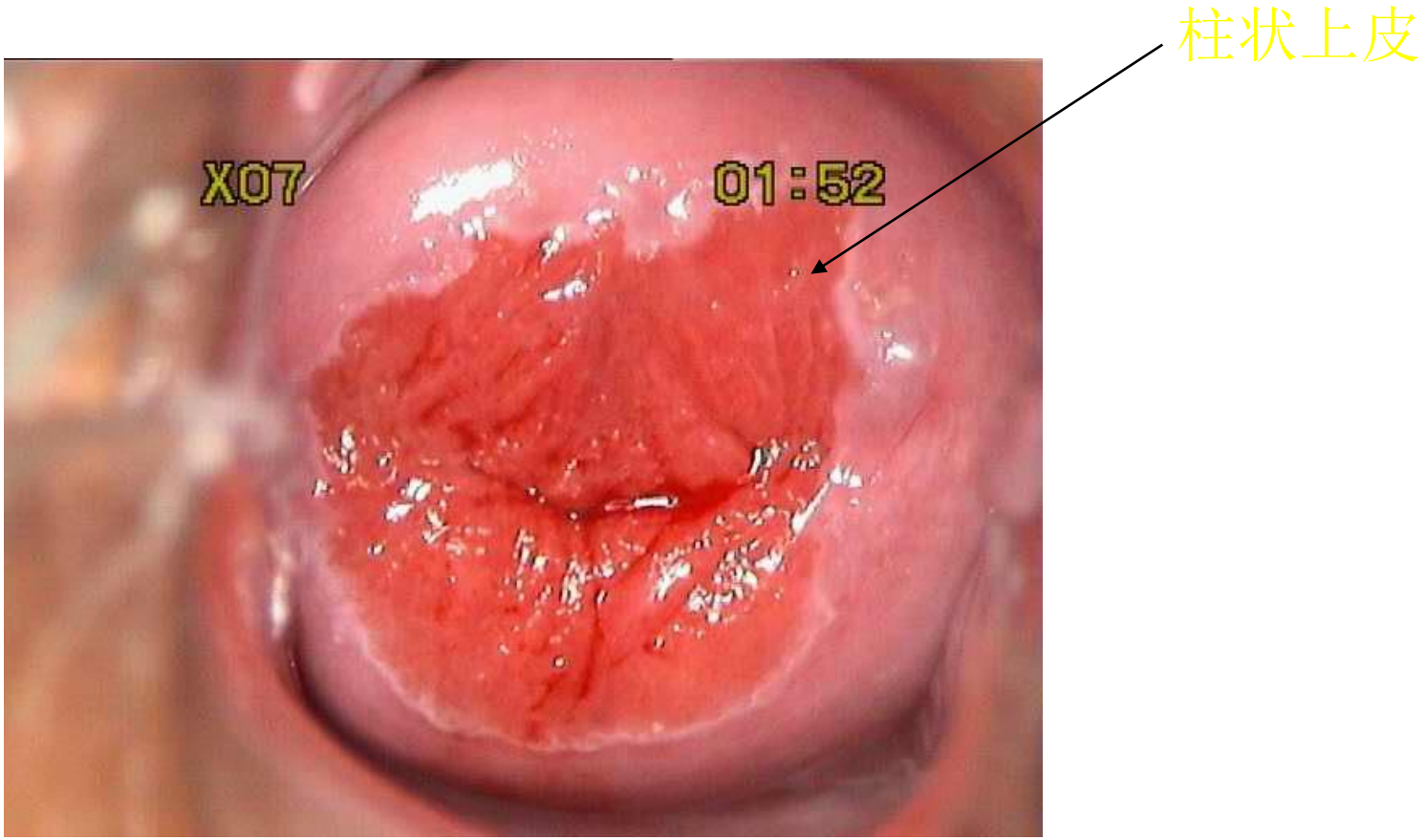
宫颈外翻/醋酸反应60秒



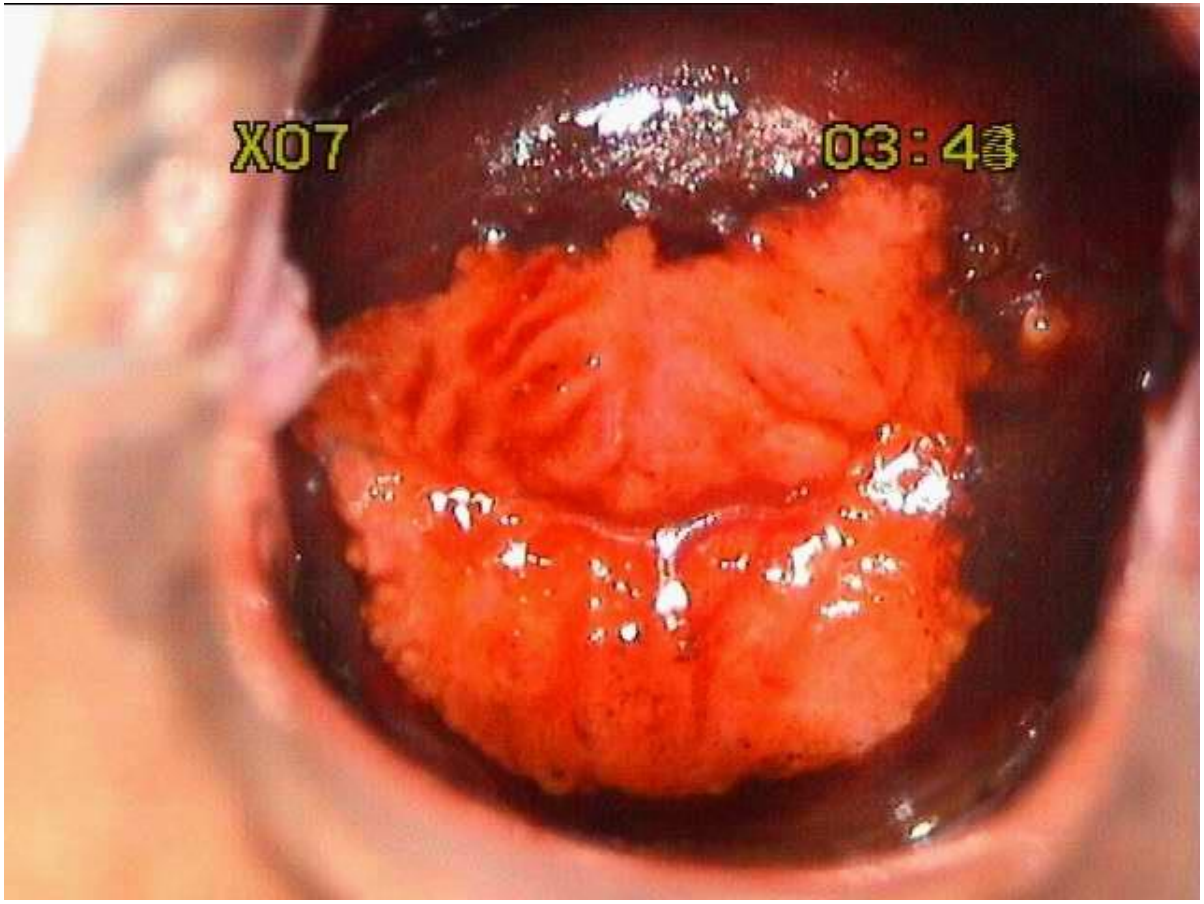
宫颈外翻/醋酸反应60秒



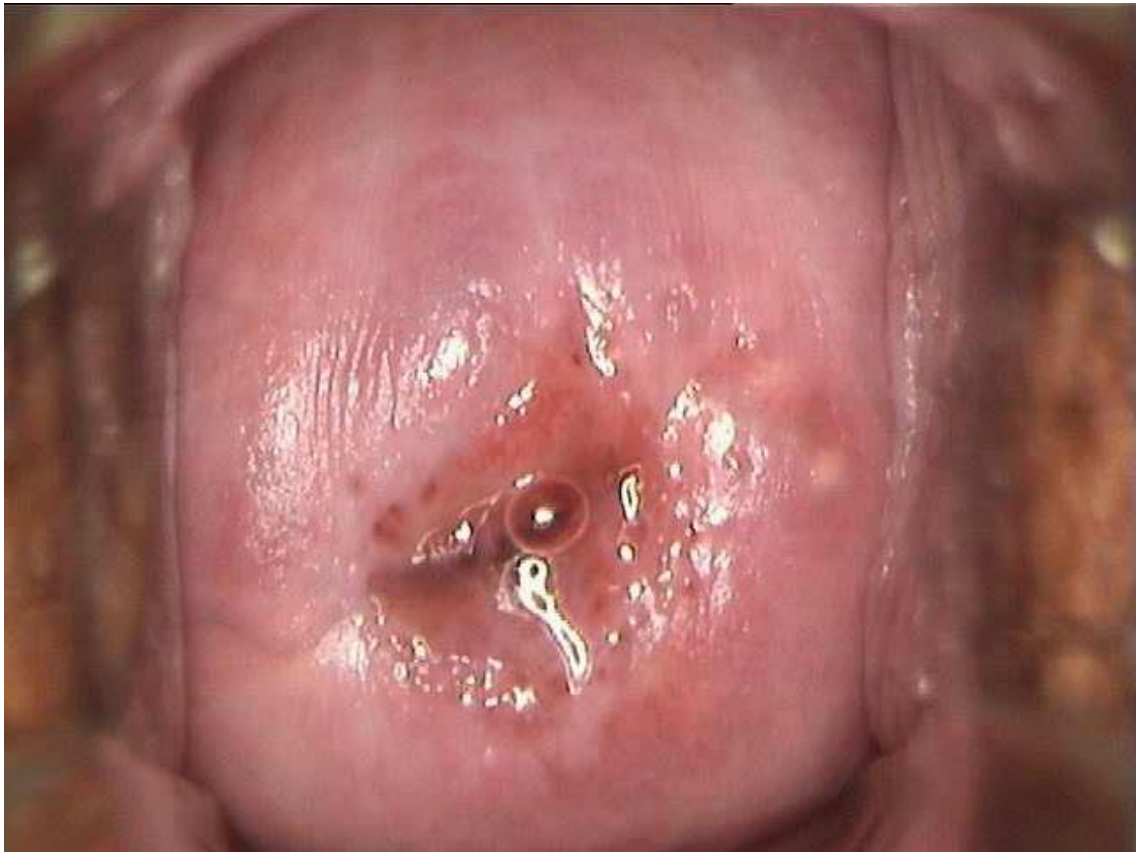
宫颈外翻/醋酸反应120秒



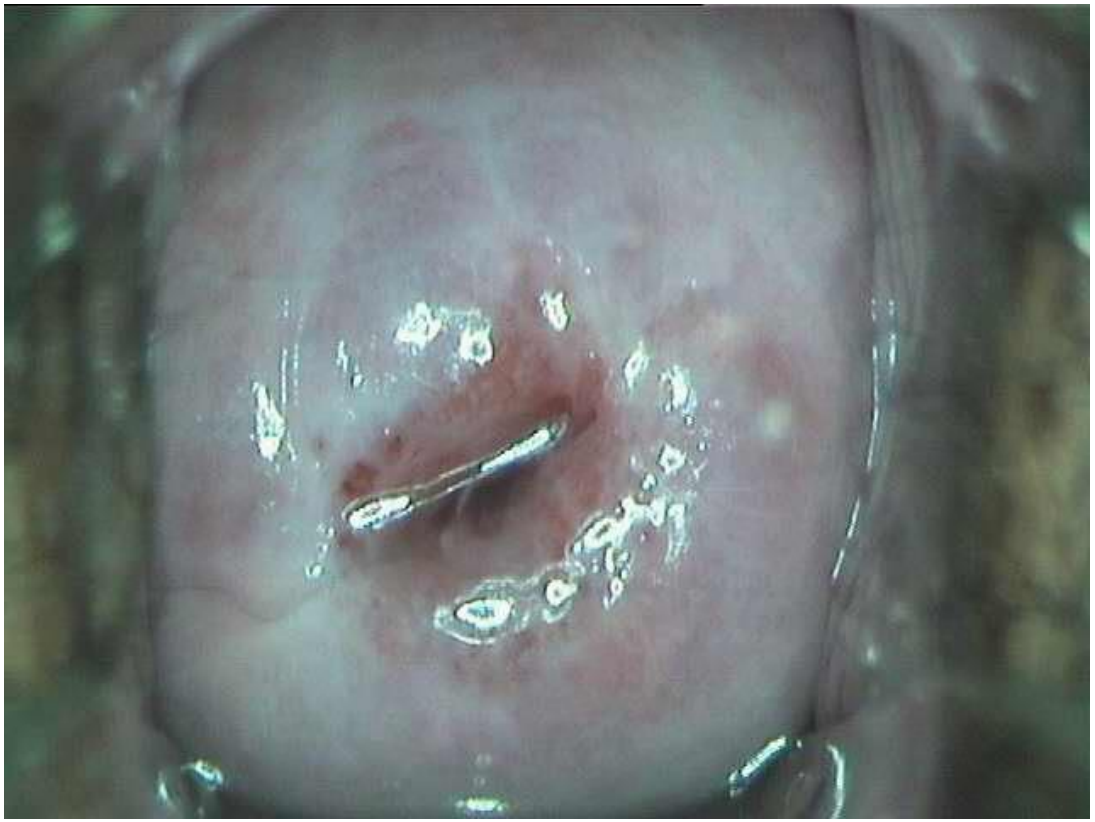
宫颈外翻/碘染色



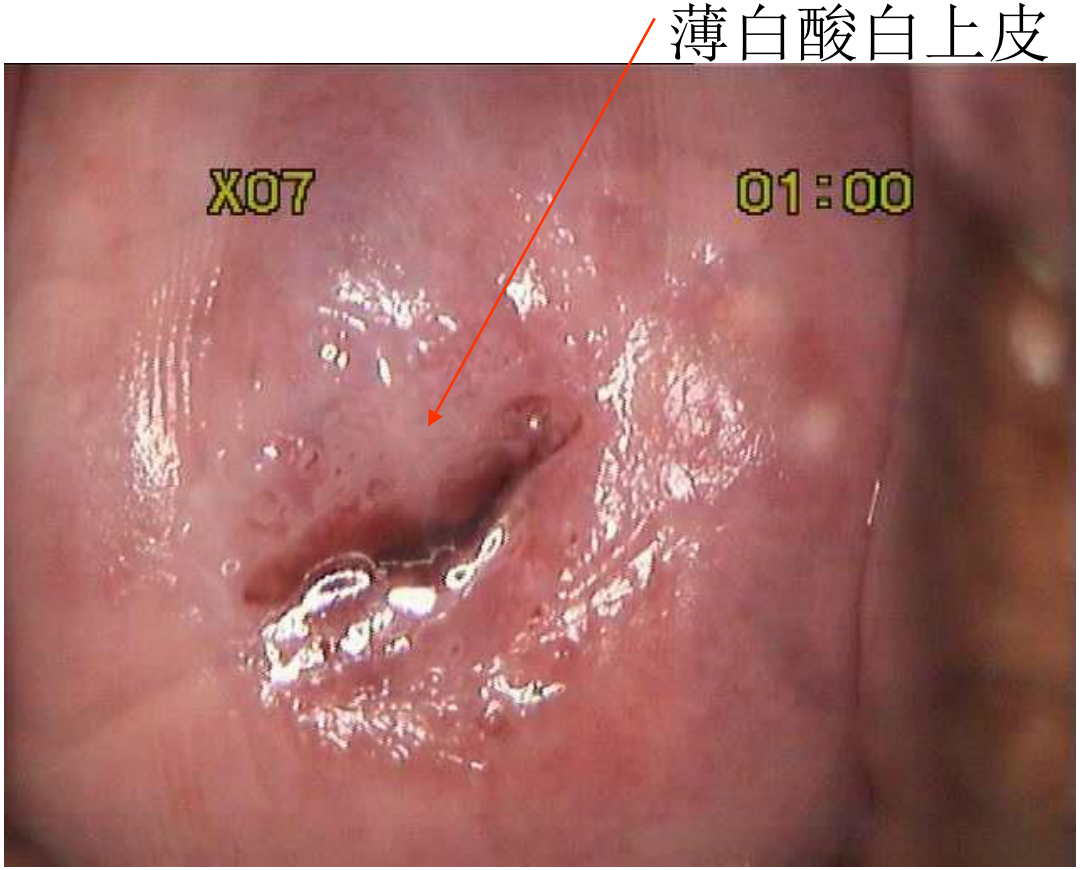
CIN1(薄醋白渐加重)



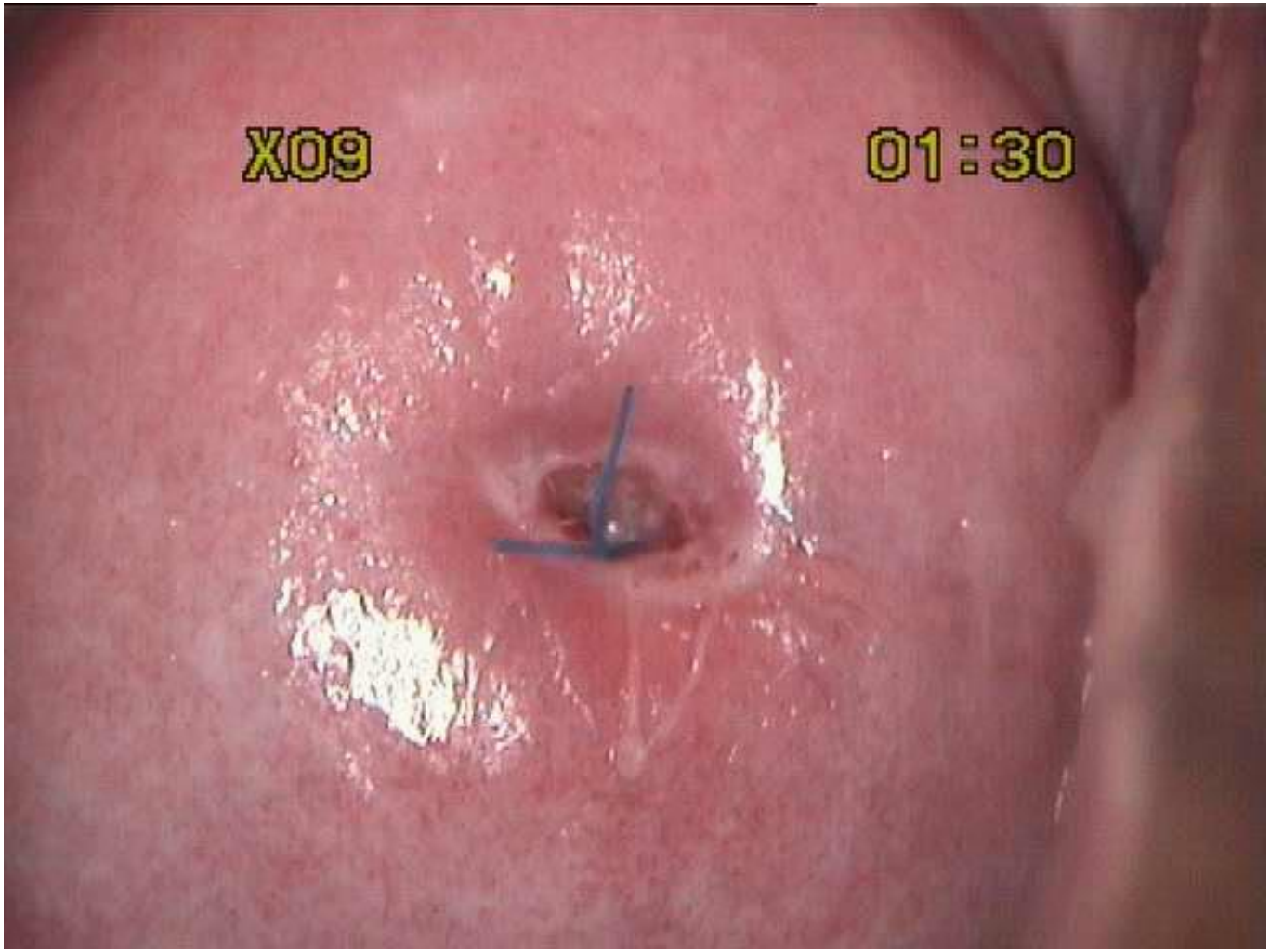
CIN1/绿光



CIN1/醋酸反应60秒

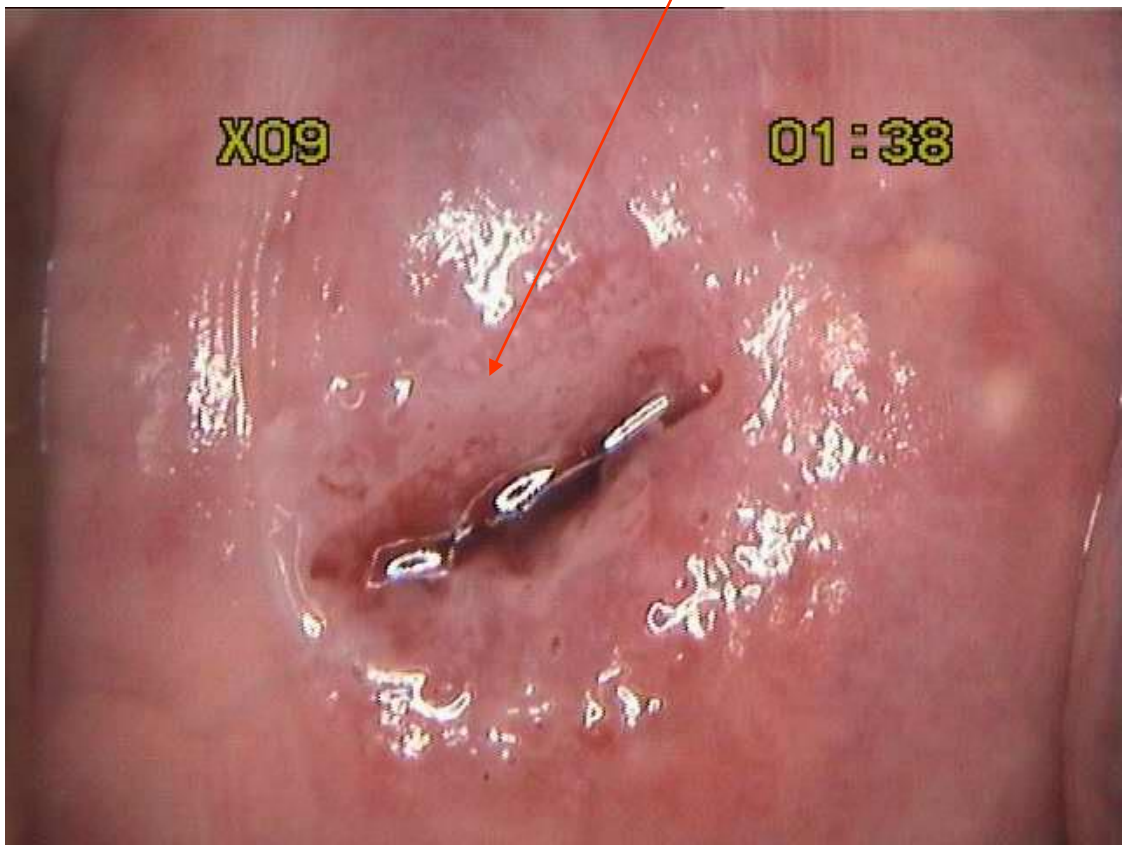


正常宫颈醋酸反应图像



CIN1/醋酸反应90秒

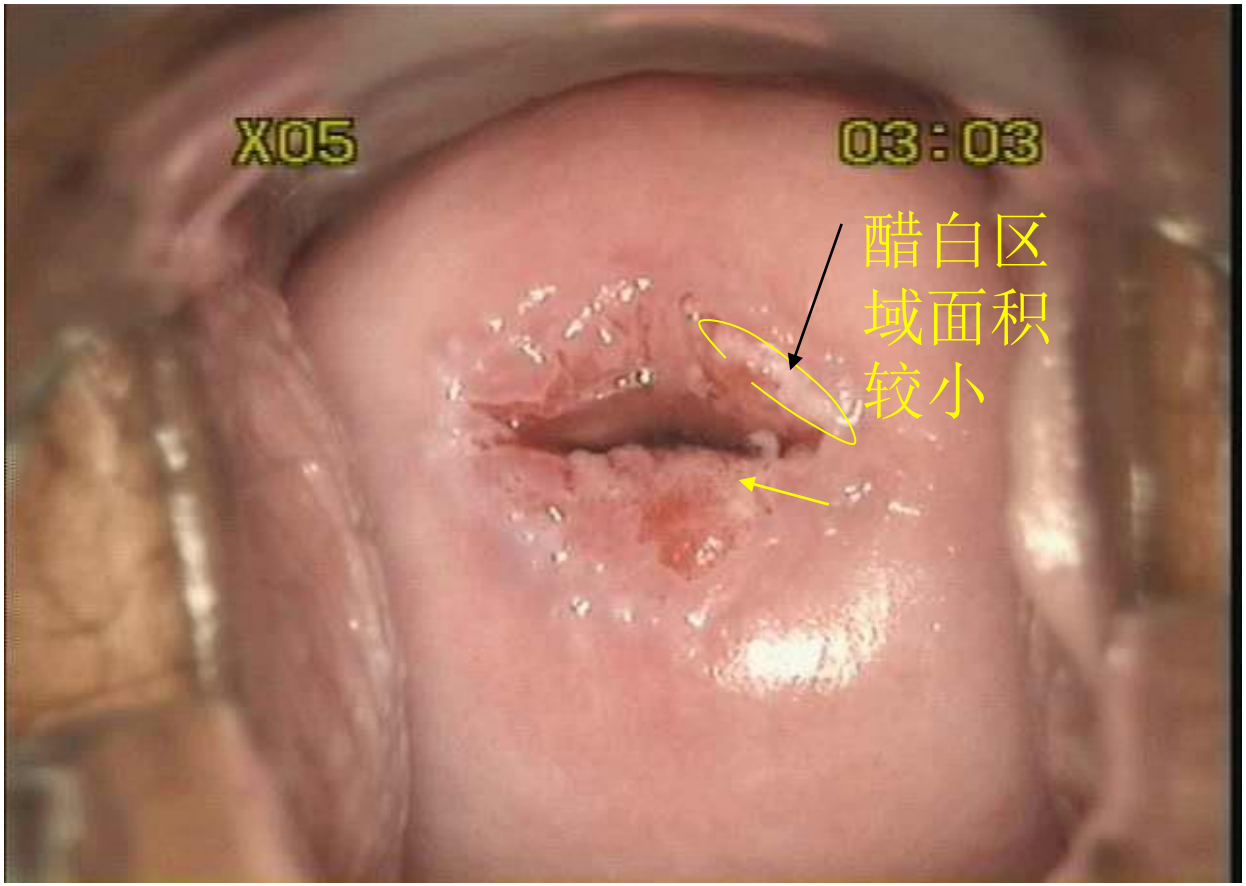
白色上皮增厚



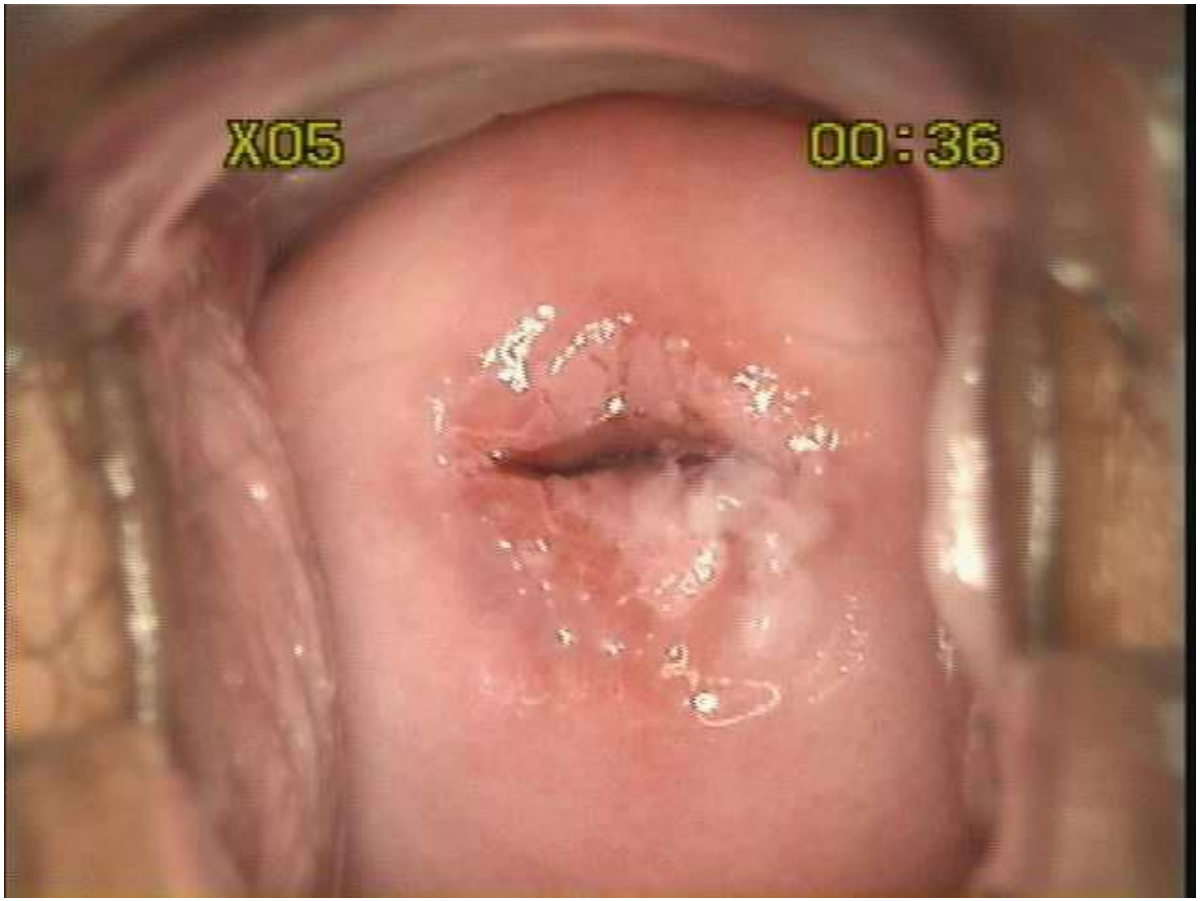
CIN2(不典型)

CIN2(不典型)/绿光

CIN2(不典型)

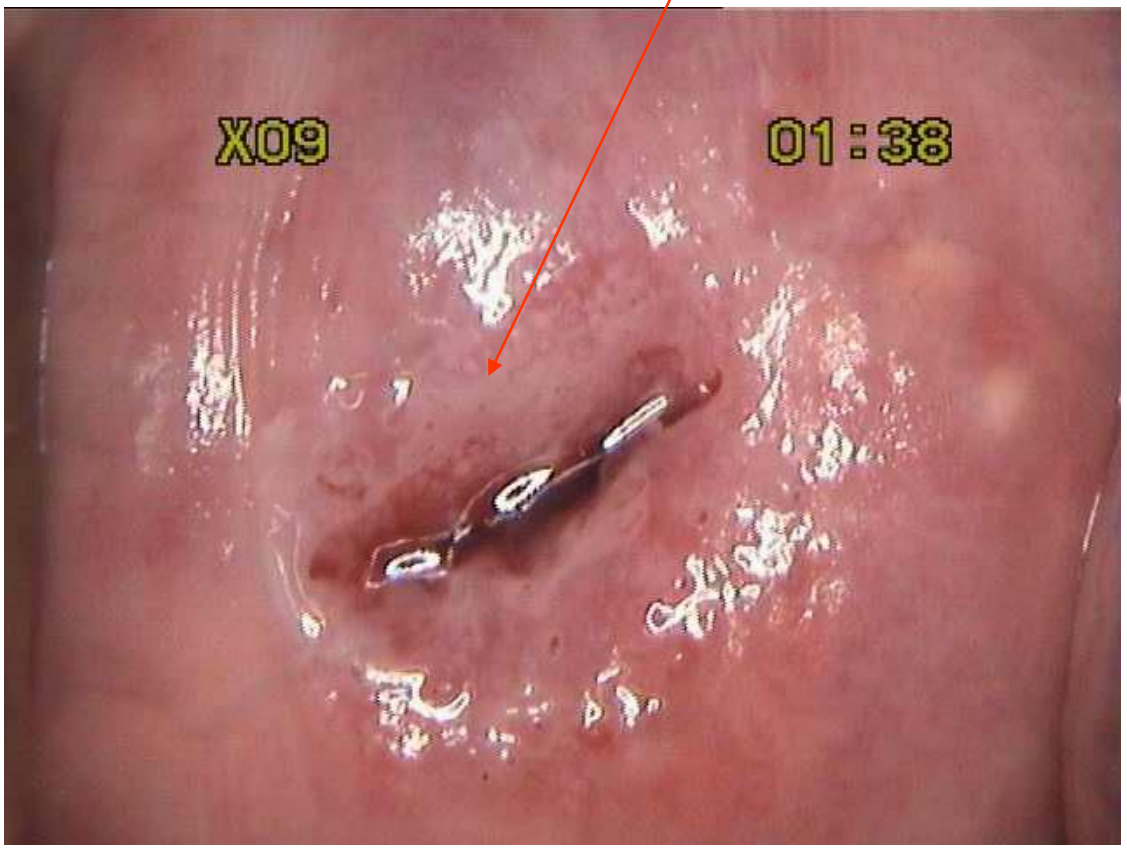


CIN2(不典型)/醋酸反应30秒



CIN1/醋酸反应90秒

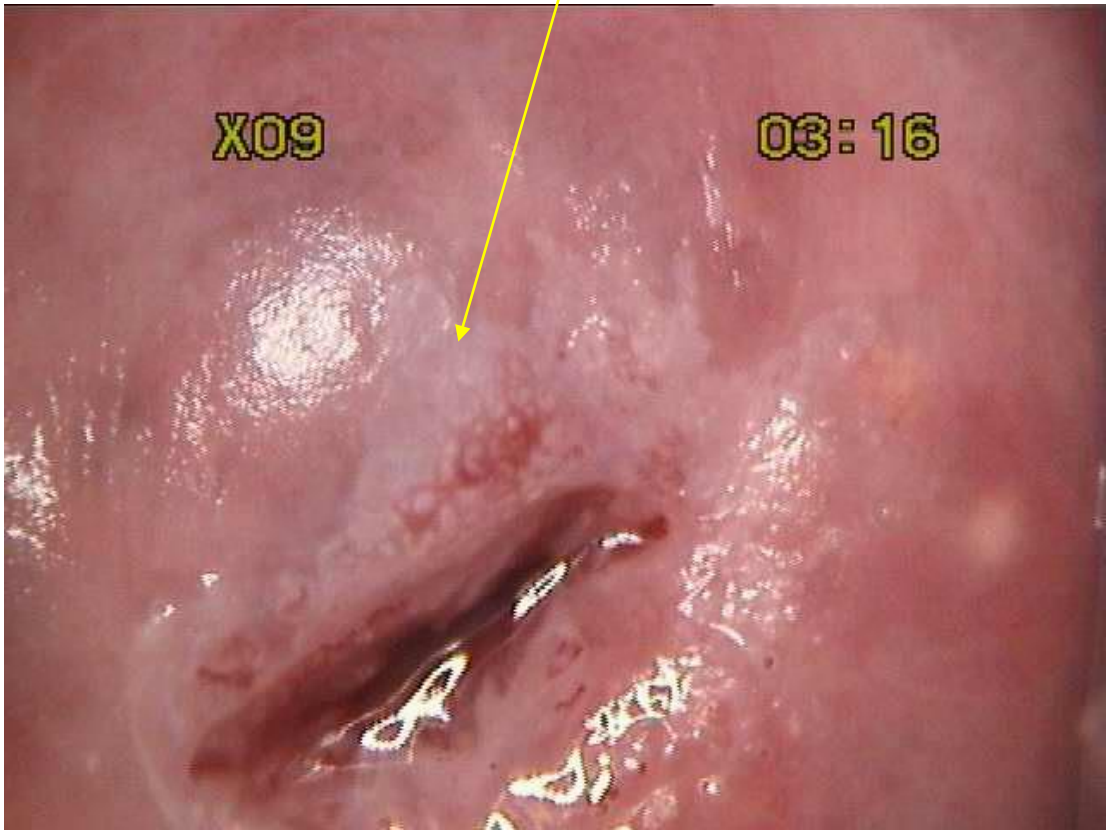
白色上皮增厚



对边界不完整的白色上皮，需辅助ECC。

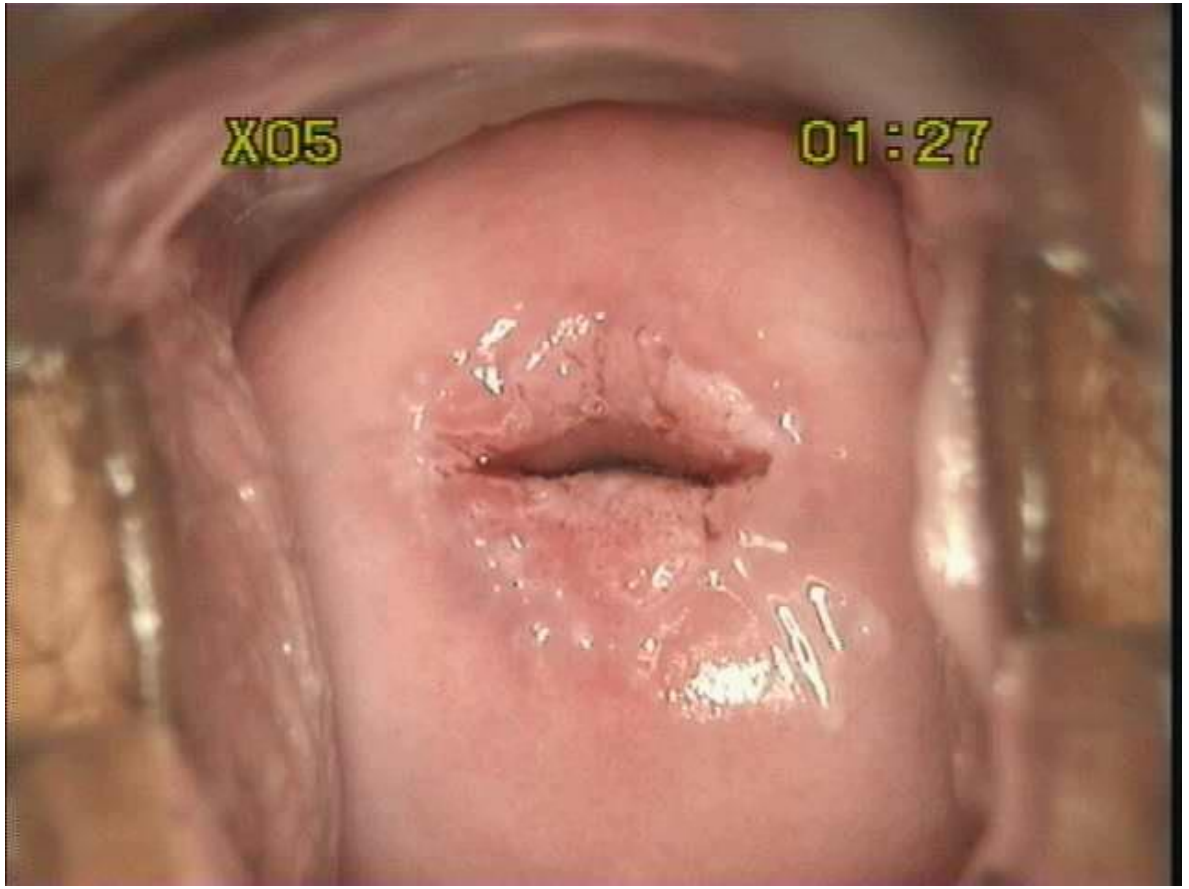
CIN1/醋酸反应180秒

白色上皮边界清楚、有细小镶嵌

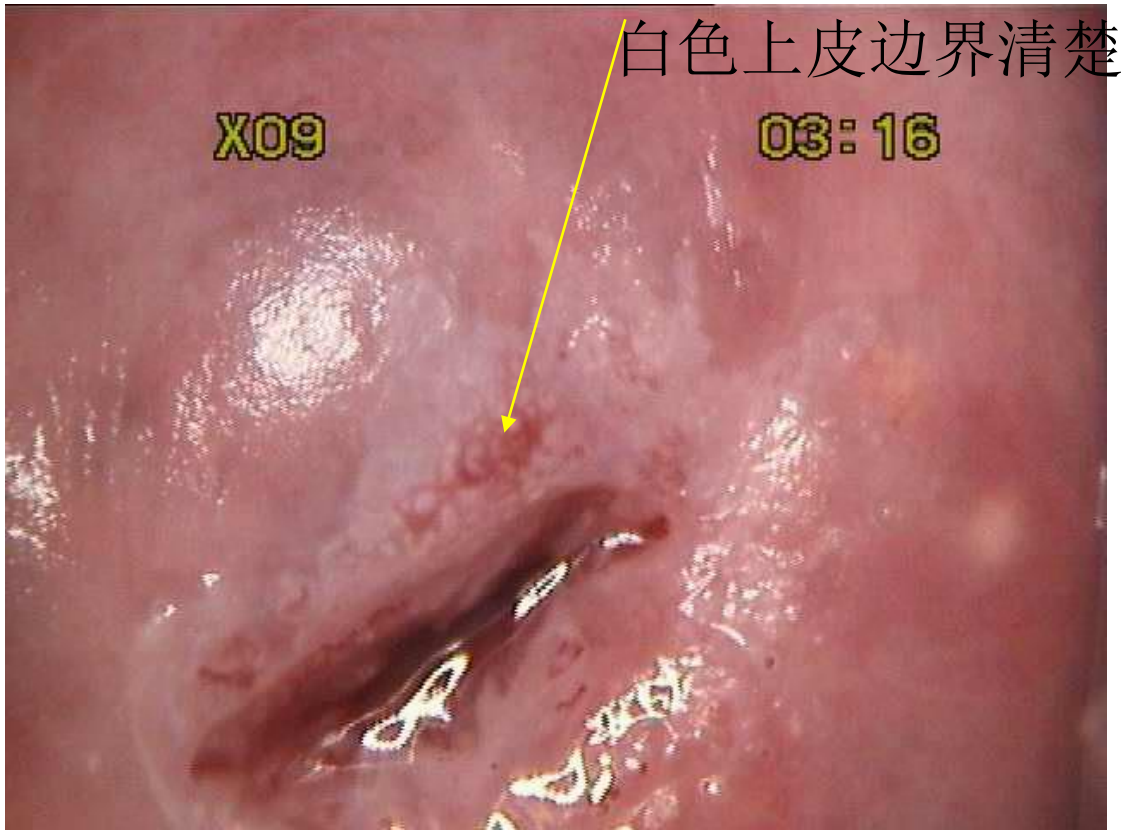


CIN1/碘染色

CIN2(不典型)/醋酸反应90秒

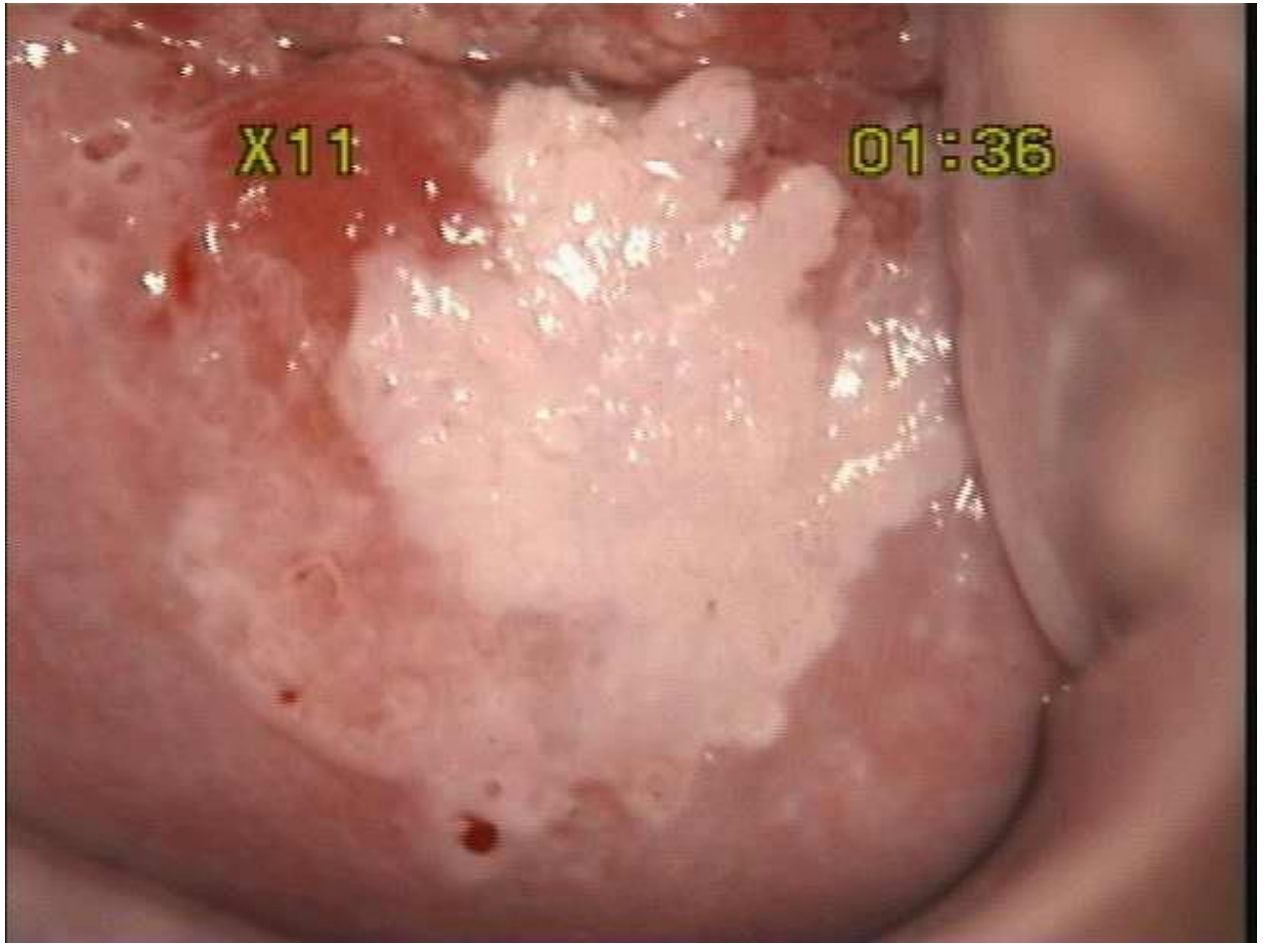


CIN1/醋酸反应180秒

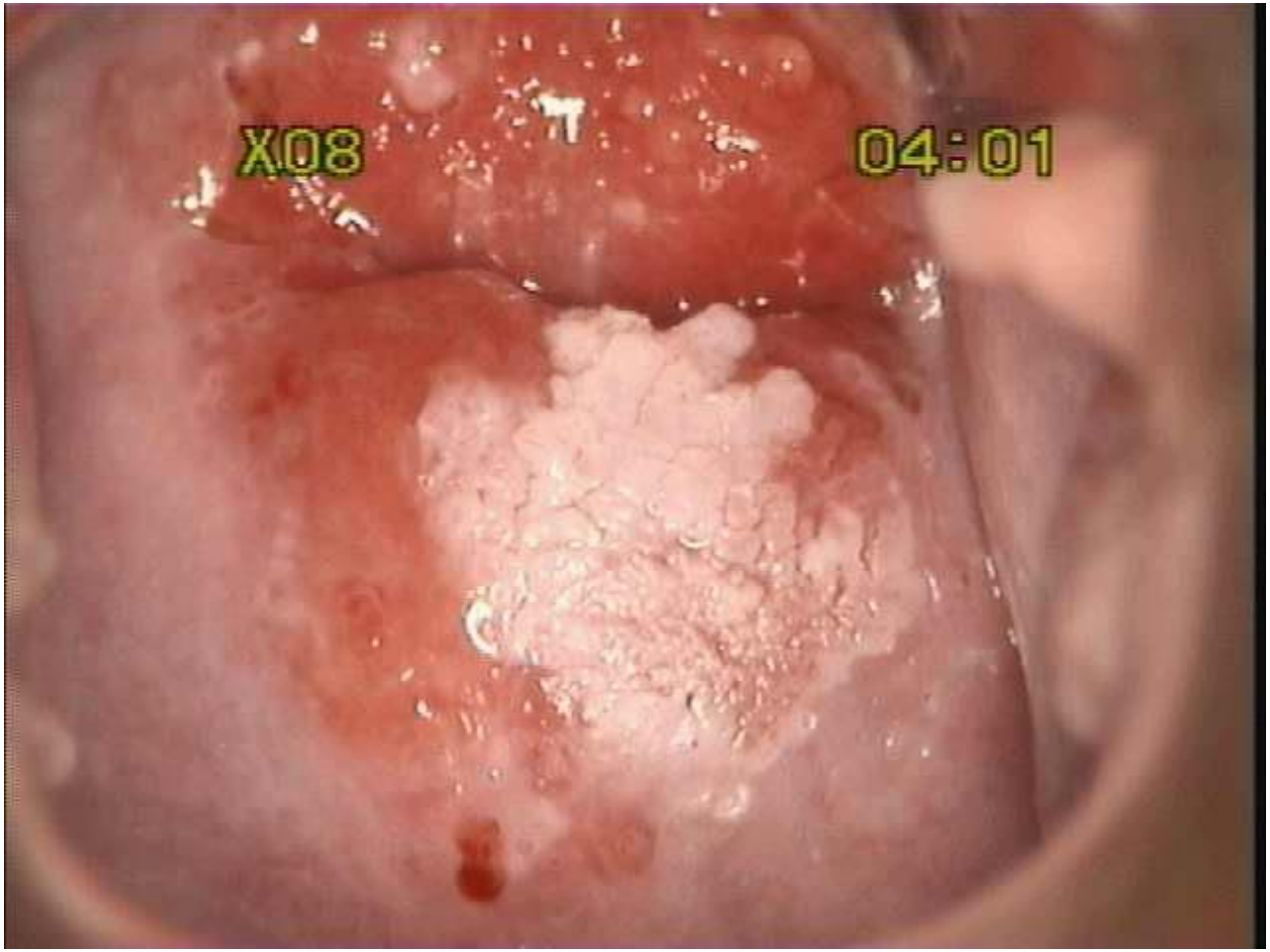


白色上皮边界清楚、有细小镶嵌

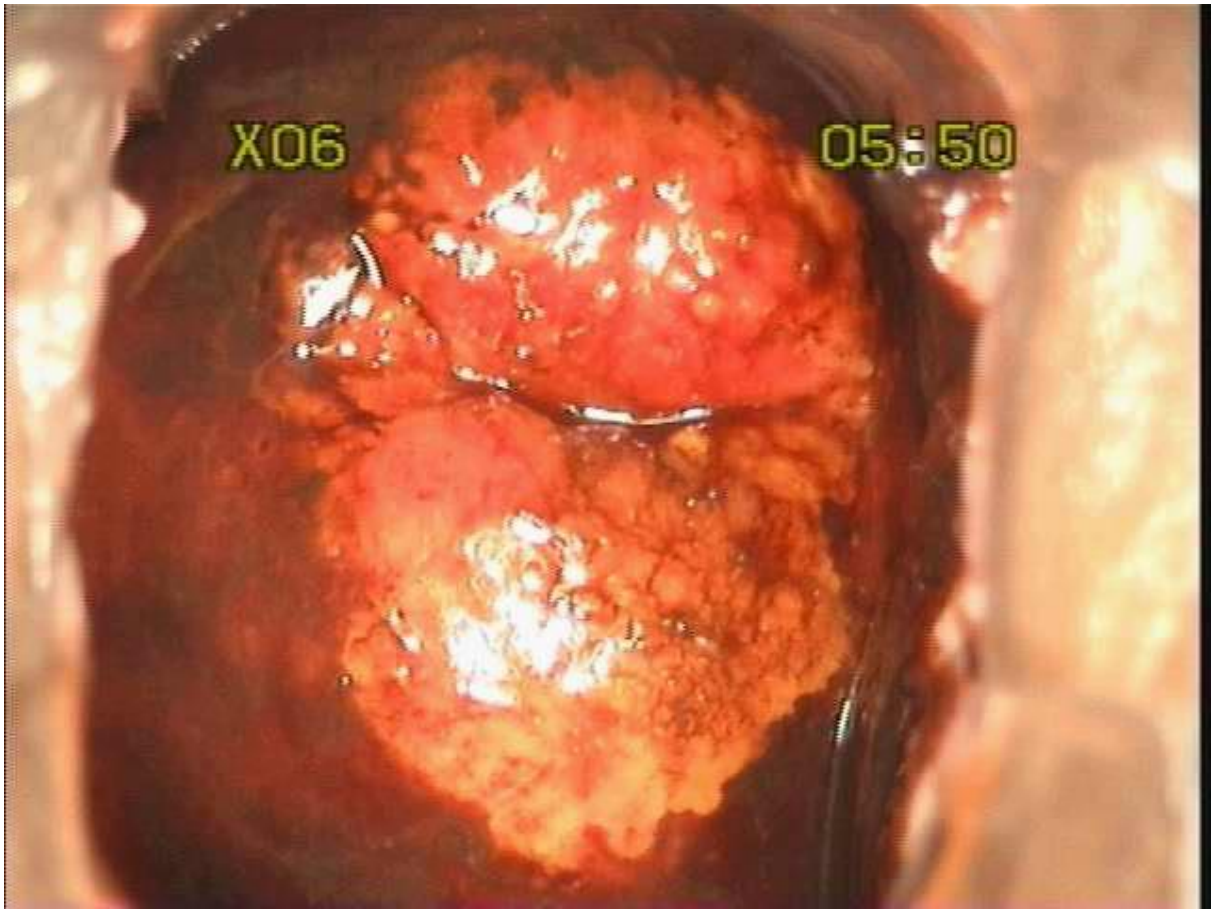
CIN2/醋酸反应90秒



CIN2/醋酸反应4分钟



CIN2/碘染色

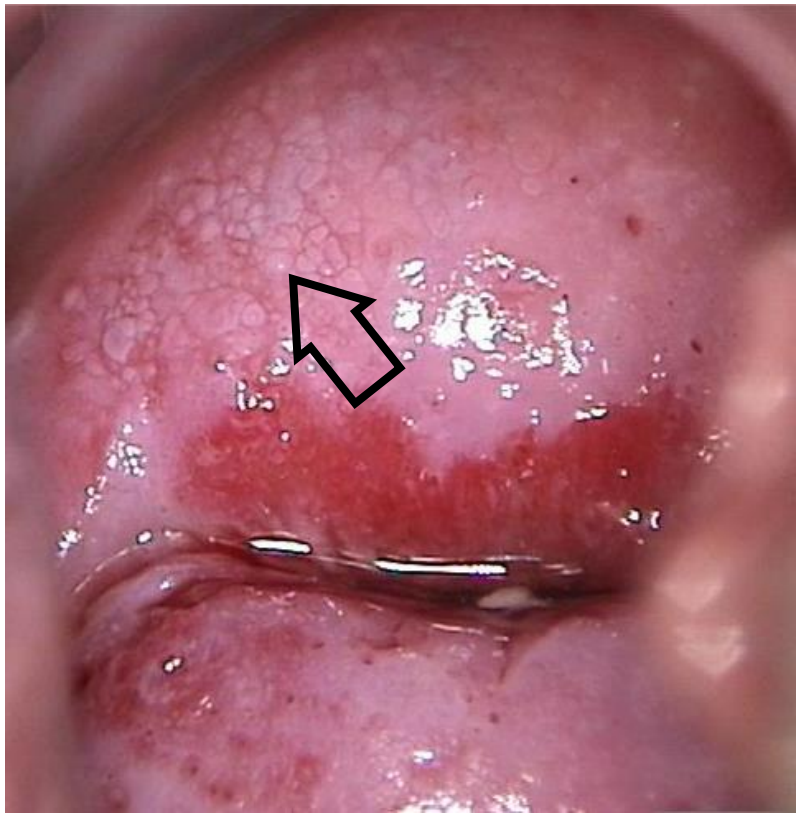


如合判别化生上皮与白色上皮？

涂醋酸前

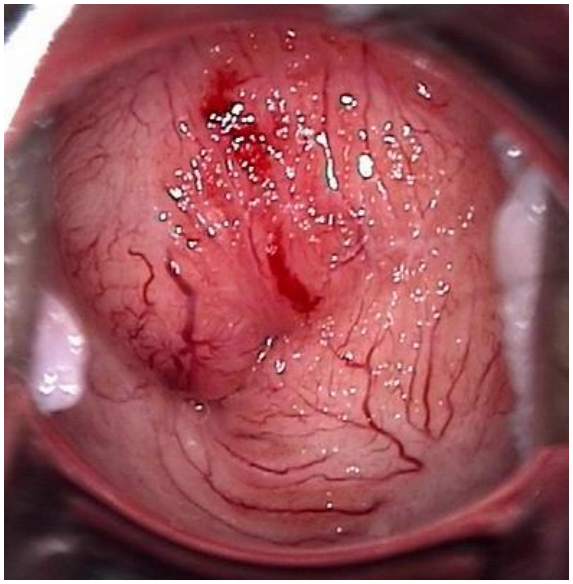
涂醋酸后

良/恶性病变的鉴别

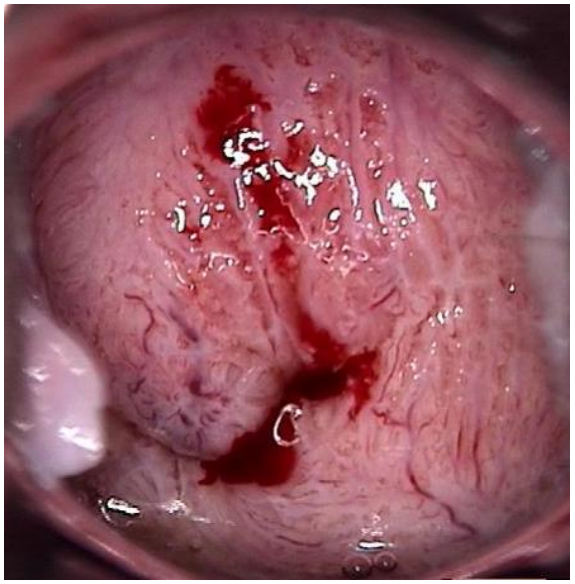


涂醋酸后白色上皮上的镶嵌明显但但在短时间内又快速消失

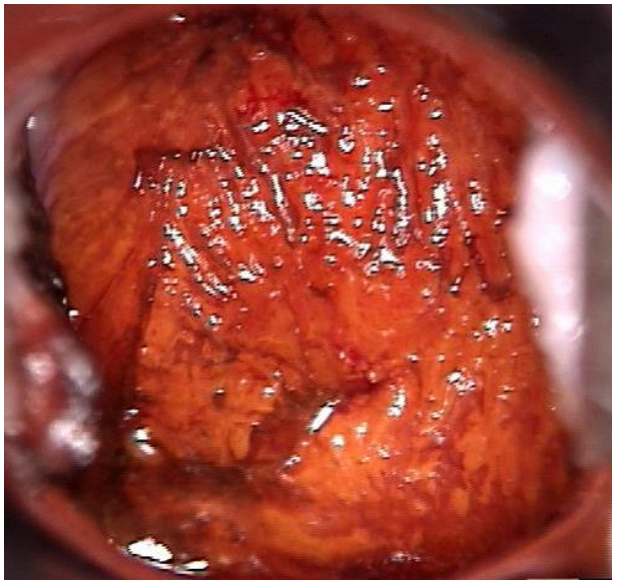
良/恶性病变的鉴别



涂醋酸前



涂醋酸2分钟后



涂复方碘溶液后

同样的图像可能病变结果存在各异

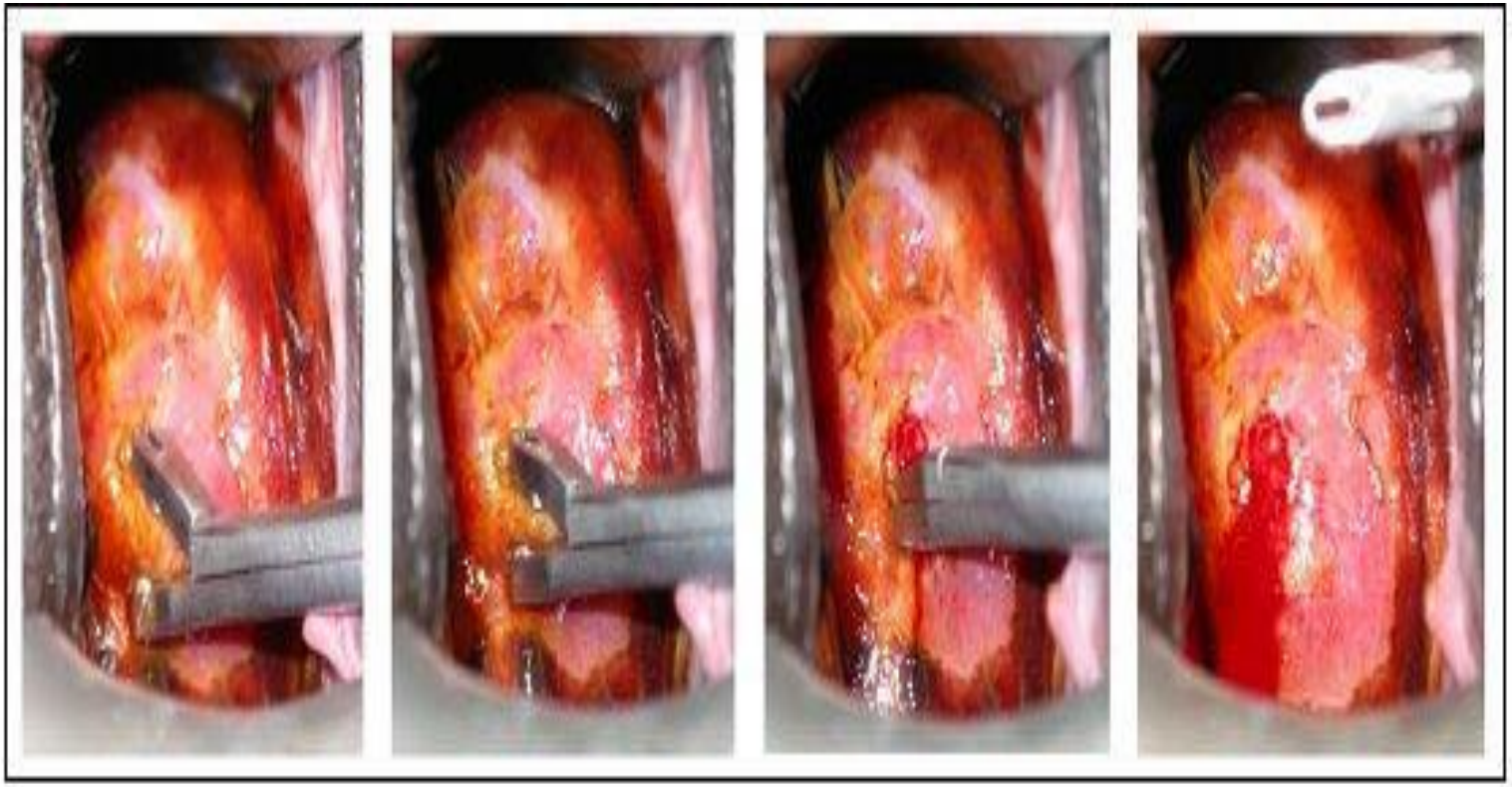
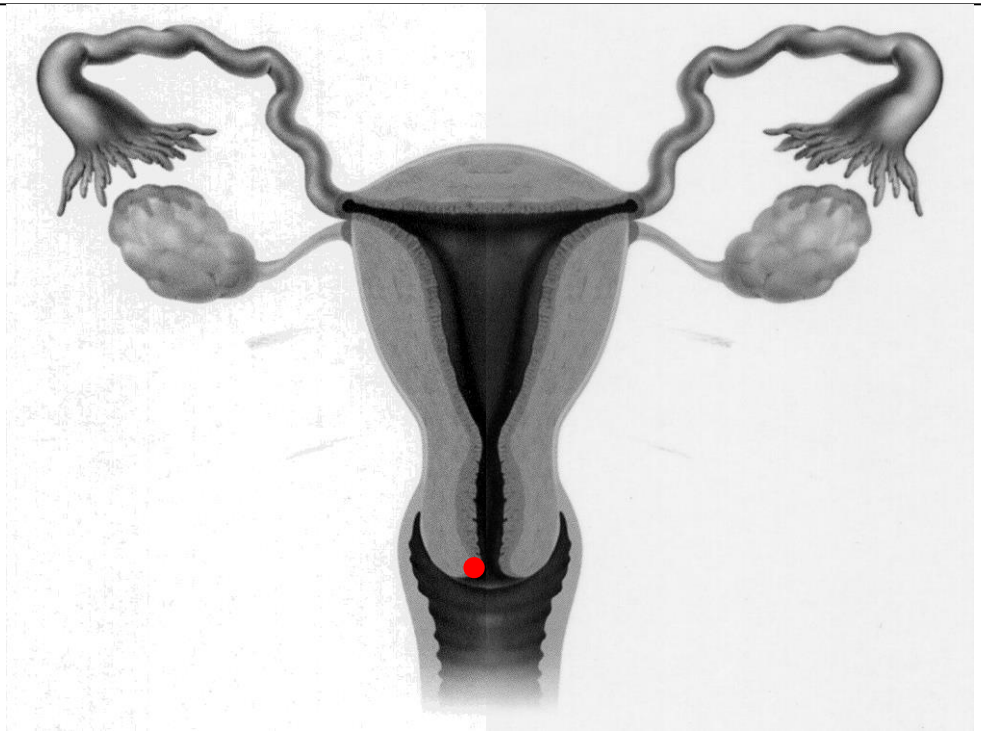
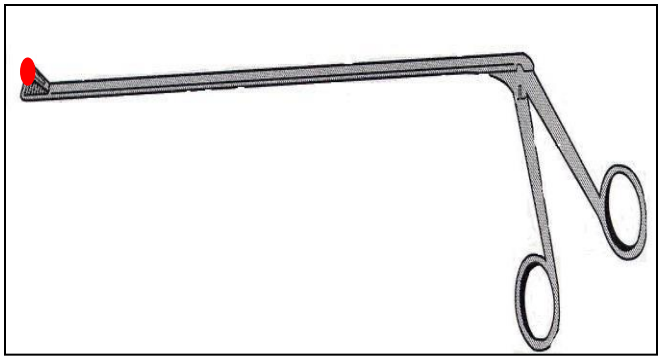


FIGURE 5.2: Biopsy technique: A toothed and sharp cutting biopsy forceps should be used for biopsy. Firmly apply the biopsy punch onto the cervix with the jaws wide open; fix the lower lip of the biopsy punch and close the jaws completely. Cutting the specimen should be carried out by quick and firm closure of the jaws. Repeated cutting and rotation of the forceps should be avoided, as this can crush the tissue sample. The removed specimen should be immediately placed in formalin. The biopsy site may be cauterized with Monsel's paste.

宫颈活检





Thankyou