



Department of Public Health and Family Welfare

NATIONAL HEALTH MISSION GOVERNMENT OF MADHYA PRADESH

2221

VIA IMAGE BANK

FOR HEALTHCARE SERVICE PROVIDERS

Includes Guidelines For VIA Screening During COVID-19





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INTRODUCTION

Cervical cancer is a preventable disease, yet it remains the second most common cancer among women in India. It is estimated that in India in 2020 around 1.24 lakhs women were diagnosed with cervical cancer, and around 77 thousand women died from the disease (Globocan 2020).

Cervical cancer can be effectively prevented by screening and treatment of precancer lesions. Of the available screening tests, the National Program for Prevention and Control of Cancer, Diabetes, CVD, and Stroke (NPCDCS), recommends visual inspection with acetic acid (VIA) for screening of all the women in the age group of 30-65 years.

VIA is a simple, effective, and inexpensive test; however, its efficacy is highly dependent on the skill set of service providers, as the results are not confirmed in a laboratory.

The VIA image bank is developed to enhance the VIA result

interpretation skill set of service providers. The objective of the booklet is to expose service providers to a variety of images corresponding to different conditions of the cervix that they come across in their day-to-day practice.

The image bank not only categorizes images as VIA positive or negative but also outlines the characteristics of acetowhite lesions basis which the interpretation is made. Service providers are expected to carefully observe each image along with characteristics of acetowhite lesions to categorize them as VIA positive or negative.

Additionally, safety precaution guidelines to conduct VIA screening during COVID-19 are also included in the booklet.

Hopefully, this booklet will act as a useful tool in the screening and management of cervical precancer.

In drafting of VIA image bank, images from "Atlas of visual inspection of the cervix with acetic acid for screening, triage, and assessment for treatment, IARC, WHO" have been used.

LIST OF ACRONYM

Acronyms	Full Form
HPV	Human Papillomavirus
SCJ	Squamocolumnar Junction
TZ	Transformation Zone
VIA	Visual Inspection with Acetic Acid

VIA POSITIVE LESIONS

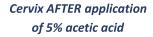
The following observations after application of 5% acetic acid are reported as VIA-positive:



Dense white acetowhite area with well defined margin* in the transformation zone that appears quickly and stay for long are characteristics of VIA positive lesion

^{*}Some low grade lesions may have diffused and geographical margins, example – image 2.2, 4.2, 5.2, 7.2, 8.2, 11.2

Cervix BEFORE application of 5% acetic acid





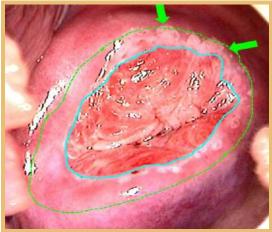


Fig: 1.1

Fig: 1.2

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

The cervix is exposed adequately. No abnormal discharge is seen

Blue line: New SCJ

Green line: Original SCJ

Green arrows: Acetowhite area

The SCJ becomes prominent. A thin acetowhite area with sharp but irregular margins is visible at the 12–2 o'clock position

Type of Transformation Zone : **Type 1**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	There is a definite acetowhite area with well-defined margins



Cervix AFTER application of 5% acetic acid

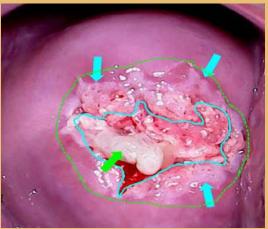


Fig: 2.1

Yellow arrow: Columnar epithelium

Red columnar epithelium is visible around the external os

Fig: 2.2

Blue line: New SCJ

Blue arrows: Acetowhite areas

Green arrow: Mucus Green line: Original SCJ

Thin acetowhite areas with irregular margins are seen on the anterior lip (at the 10–1 o'clock position) and the posterior lip (at the 4 o'clock position

Type of Transformation Zone : Type 1

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Diffused margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	The thick white mucus plug at the external os should not be mistaken for an acetowhite area

 $[*]Some \ low\ grade\ lesions\ may\ have\ diffused\ and\ geographical\ margins$



Cervix AFTER application of 5% acetic acid

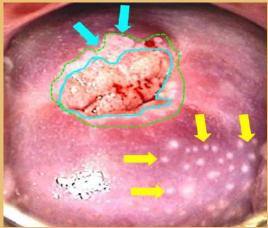


Fig: 3.2

Fig: 3.1

Green arrow: Polyp

Yellow arrows: Strawberry appearance

A few red patches are visible on the posterior lip, giving rise to strawberry appearance of the cervix

Blue line: New SCJ

Blue arrows: Acetowhite area

Yellow arrows: Scattered white dots

Green line: Original SCJ

A thin acetowhite area with irregular margins and attached to the SCJ is seen on the anterior lip (at the 10–12 o'clock position). The multiple scattered white dots on the posterior lip are due to cervicitis

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	The thin dot like acetowhite areas near external os are due to squamous metaplasia. Cervix is VIA positive due to well defined acetowhite area between 10-12 o'clock position







Fig: 4.1

Fig: 4.2

The cervix is covered with mucoid discharge

Blue line: New SCJ

Green arrows: Acetowhite area

Green line: Original SCJ

Yellow arrows: Islands of columnar epithelium

Multiple thin milky white areas with geographical margins and detached from the SCJ are visible on both the anterior and posterior lips. A thin acetowhite area with distinct and regular margin is at 4 o'clock position

Were acetowhite patches visible on the cervix after application of 5% acetic acid? If yes, observe characteristics

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinctly clear and sharp
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Milky white areas with geographical margins, detached from the SCJ and mostly outside the TZ, are typical of HPV infections caused by low-risk HPV types. This case is VIA-positive because of the acetowhite lesion that is attached to SCJ and has a well-defined margin

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Fig: 5.1

Fig: 5.2

Copious curdy white discharge is present

Blue line: New SCJ

Blue arrows: Transparent acetowhite

areas

Green line: Original SCJ

Yellow arrow: Nabothian cyst

Transparent acetowhite areas with illdefined margins are present in the TZ (on the anterior lip at the 1 o'clock position and on the posterior lip at the 6 o'clock position)

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, irregular margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Well-defined acetowhite area at 1o'clock position





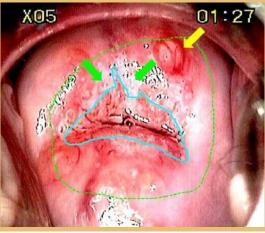


Fig: 6.1

Fig: 6.2

Yellow arrow: Nabothian cyst

The blister-like swelling at the 2 o'clock position is a nabothian cyst.

Blue line: New SCJ

Green line: Original SCJ

Green arrows: Acetowhite area

Yellow arrow: Nabothian cyst

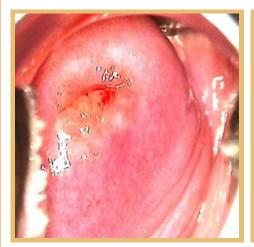
The location of the nabothian cyst helps to identify the outer limit of the TZ. A tongue-shaped thin acetowhite area with irregular margins is seen on the anterior lip at the 12 o'clock position

Were acetowhite patches visible on the cervix after application of 5% acetic acid? If yes, observe characteristics

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, irregular margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	The presence of tongue-shaped thin acetowhite areas and nabothian cysts in the TZ is most likely to indicate squamous metaplasia. However, it is better to give a VIA-positive diagnosis because the margins are distinct

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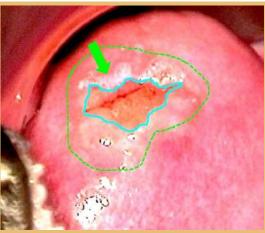


Fig: 7.1

Fig: 7.2

Parous cervix. No abnormal discharge is seen

Blue line: New SCJ

Green arrow: Acetowhite area
Green line: Original SCJ

The SCJ is fully visible. A thin acetowhite area with irregular margins is seen at the 10–12 o'clock position

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Diffused margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	

Cervix AFTER application of 5% acetic acid



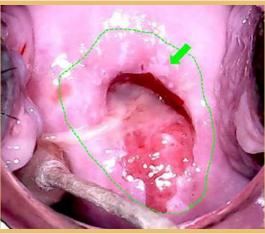


Fig: 8.1

Fig: 8.2

Copious curdy white discharge is present

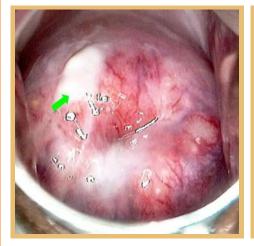
Green arrows: Acetowhite areas

Green line: Original SCJ

The mucus is pushed to one side to visualize the SCJ. Thin acetowhite areas with feathery margins are visible at the 1 o'clock position

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, irregular margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Thin acetowhite areas with feathery margins are suggestive of squamous metaplasia. However, the lesion is opaque, and the margins are distinct. It is better to categorize the lesion as VIA-positive.





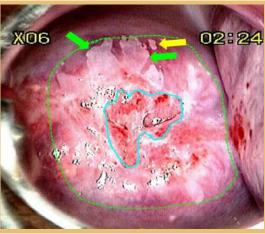


Fig: 9.1

Fig: 9.2

Green arrow: Curdy white discharge

The cervix is covered with copious curdy white discharge suggestive of candidiasis.

Blue line: New SCJ

Green arrows: Thin acetowhite areas

Green line: Original SCJ

Yellow arrow: Satellite lesion

Thin acetowhite areas with geographical margins are present at the 12 o'clock position. A small satellite lesion is seen at the 1 o'clock position, located away from the SCJ)

Were acetowhite patches visible on the cervix after application of 5% acetic acid? If yes, observe characteristics

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, irregular margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Acetowhite patches with geographical margins and satellite lesions are due to HPV infections. These lesions caused by infection with low-risk HPV types are called flat condylomata. Such lesions present in the transformation zone are indistinguishable from low-grade precancers

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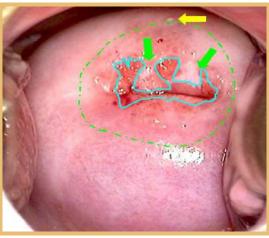


Fig: 10.1

Fig: 10.2

Yellow arrows: Nabothian cysts

The cervix appears normal.

Nabothian cysts are present at the
12 o'clock position

Blue line: New SCJ

Green line: Original SCJ

Green arrows: Acetowhite area

Yellow arrow: Nabothian cyst

Thin acetowhite epithelium with tongueshaped projections is seen in the TZ at the 11

o'clock and 1 o'clock positions

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, irregular margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Tongue-shaped thin acetowhite areas projecting towards the external os indicate squamous metaplasia. However, the lesion is opaque, and the margin is distinct. It is better to categorize the lesion as VIA-positive

Cervix AFTER application of 5% acetic acid



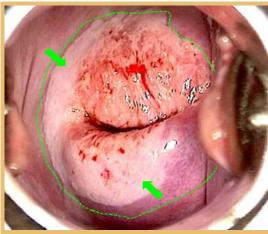


Fig: 11.1

Fig: 11.2

The cervix appears normal

Green arrows: Dense acetowhite area Green line: Original SCJ

A large dense acetowhite area with welldefined margins is seen on both the anterior and posterior lips, occupying more than 75% of the ectocervix

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Type of Transformation Zone*: **Type 2 or 3**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, thin acetowhite area
Margins and Demarcations	Distinct, sharp, raised margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	In transformation zone
VIA Result	VIA Positive
Remarks	A dense acetowhite area with well-demarcated margins indicates the presence of high-grade disease. Application of Lugol's iodine helps to delineate the abnormal area by providing a sharp colour contrast





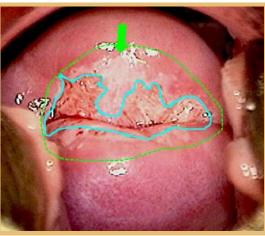


Fig: 12.1

Fig: 12.2

Blue line: SCJ

The "fish mouth" appearance of the external os in a parous cervix

Blue line: New SCJ

Green arrow: Acetowhite area Green line: Original SCJ

A thin acetowhite area with irregular margins and arising from the SCJ is seen at the 12 o'clock position.

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, dense white
Margins and Demarcations	Diffused margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Well defined acetowhite areas with sharp margins in the transformation zone







Fig: 13.1

Fig: 13.2

The cervix is covered with mucoid discharge

Blue line: New SCJ

Green arrow: Acetowhite area Green line: Original SCJ

Large ectropion pushing the SCJ far out on the ectocervix. A thin acetowhite area with a well-defined margin and attached to the SCJ is seen on the anterior lip at the 11 o'clock position.

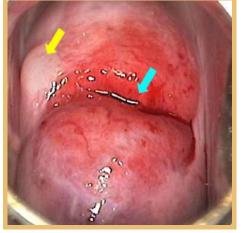
Were acetowhite patches visible on the cervix after application of 5% acetic acid? If yes, observe characteristics

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, cloudy white
Margins and Demarcations	Geographical margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	On VIA, it is often difficult to distinguish between metaplasia and low-grade precancers, and it is prudent to categorize the lesion as VIA-positive

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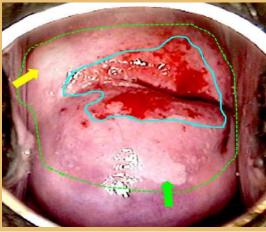


Fig: 14.1

Fig: 14.2

Blue arrow: Columnar epithelium

Yellow arrow: Nabothian cyst

Hypertrophied cervix. A nabothian cyst is present at the 10 o'clock position

Blue line: New SCJ

Green line: Original SCJ

Green arrow: Acetowhite area with distinct

margin

Green line: Original SCJ

Yellow arrow: Nabothian cyst

The white area at the 6 o'clock position is opaque and has a smooth well-defined outer margin. It is difficult to assess continuity with SCJ

Were acetowhite patches visible on the cervix after application of 5% acetic acid? If yes, observe characteristics

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, cloudy white
Margins and Demarcations	Diffused margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Thin acetowhite area is on the TZ though the continuity with SCJ is not very distinct. The case should be considered as VIA-positive due to the features of the acetowhite area. Application of Lugol's iodine would have helped to delineate the complete lesion better

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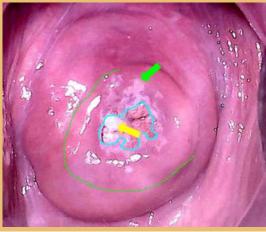


Fig: 15.1

Fig: 15.2

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

The ectocervix is covered by pink squamous epithelium. Red columnar epithelium is seen around the external os

Blue line: New SCJ

Green arrow: Acetowhite area **Green line: Original SCJ**

Yellow arrow: Mucus

Thin acetowhite areas with irregular margins are visible at the 12 o'clock position, abutting the SCJ and within the TZ

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, cloudy white
Margins and Demarcations	Diffused margins*
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Thin acetowhite areas with irregular margins are usually due to metaplasia or CIN1. If the margin is well defined, it is prudent to categorize the lesion as VIA-positive

Type of Transformation Zone : Type 1



Cervix AFTER application of 5% acetic acid

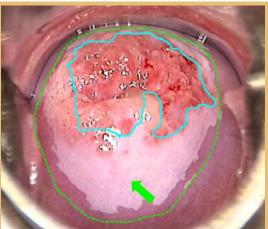


Fig: 16.2

Fig: 16.1

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

The ectocervix is covered by pink squamous epithelium. Red columnar epithelium is seen around the external os

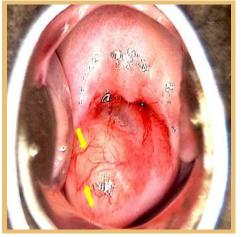
Blue line: New SCJ

Green arrow: Acetowhite area Green line: Original SCJ

The SCJ is fully visible. A dense acetowhite area with sharp margins and attached to the SCJ is present on both the anterior and posterior lips

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, dull, cloudy white
Margins and Demarcations	Distinct, regular and sharp margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Positive
Remarks	Dense white acetowhite area covering more than 75% of ectocervix





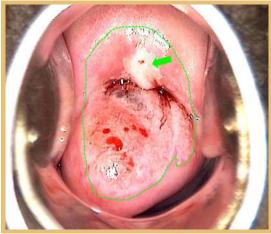


Fig: 17.1

Fig: 17.2

Yellow arrows: Prominent blood vessels on nabothian cyst

A large nabothian cyst is present on the posterior lip. On closer inspection, the blood vessels appear prominent on the surface of the cyst Green arrow: Acetowhite area Green line: Original SCJ

A dense acetowhite area with sharp margins is present at the 12 o'clock position, with extension into the endocervical canal. The SCJ is not visible

Type of Transformation Zone*: **Type 2 or 3**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared immediately and stayed for more than a minute
Colour Intensity	Opaque, dense, cloudy white
Margins and Demarcations	Distinct, regular and sharp margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	In transformation zone, close to external os (SCJ not visible)
VIA Result	VIA Positive
Remarks	Lesions extending into the endocervical canal should not be treated by ablation. The size of the lesion becomes much clearer after application of Lugol's iodine

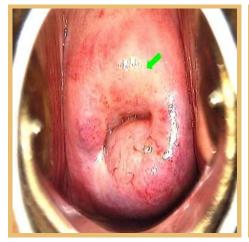
VIA NEGATIVE LESIONS

The following observations after application of 5% acetic acid are reported as VIA-negative:

- ✓ No acetowhite area
- ✓ Columnar epithelium appearing white
- ✓ Polyps with faint acetowhite colour
- ✓ Nabothian cysts appearing white
- ✓ Line-like acetowhitening at the SCJ
- ✓ Patchy acetowhite areas without any definite margin
- ✓ Thin acetowhite areas with tongue-shaped projections towards the external os
- ✓ Acetowhite areas away from the SCJ

Cervix BEFORE application of 5% acetic acid





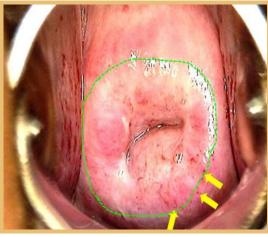


Fig: 18.1

Fig: 18.2

Green arrow: Squamous epithelium

epitnellum

The ectocervix is covered by pale atrophic squamous epithelium

Yellow arrows: Petechial haemorrhagic spots

Green line: Original SCJ

The SCJ is not visible. A few petechial haemorrhagic spots are present, mostly on the posterior lip. No acetowhite area

Type of Transformation Zone*: **Type 2 or 3**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	No acetowhite area
Colour Intensity	
Margins and Demarcations	
Colour Uniformity	
Location	
VIA Result	VIA Negative
Remarks	Small haemorrhagic spots (petechial spots) are commonly seen on atrophic cervical epithelium

Cervix BEFORE application of 5% acetic acid





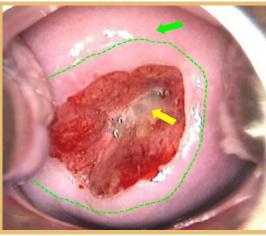


Fig: 19.1

Fig: 19.2

Red arrow: Columnar epithelium

Red granular columnar epithelium is visible on the ectocervix

Green arrow: Squamous epithelium Green line: Original SCJ

Yellow arrow: Mucus plug

No acetowhite area on the cervix. A mucus plug is seen at the external os

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	No acetowhite area
Colour Intensity	
Margins and Demarcations	
Colour Uniformity	
Location	
VIA Result	VIA Negative
Remarks	The small bleeding points seen on the columnar epithelium are due to injury caused by a cotton swab during application of acetic acid. The columnar epithelium is fragile and is easily prone to trauma



Cervix AFTER application of 5% acetic acid



Fig: 20.1

Green arrows: Raised white lesions

Multiple shiny white raised lesions are seen close to the external os and also on the posterior lip. Note the bright white colour of the lesions. This is typical of cervical condylomata

Fig: 20.2

Green arrows: Thick white lesions
Green line: Original SCJ

Red arrow: Raised margins

The white lesions with raised margins are still visible, and most of them are outside the TZ.
They are located away from the SCJ. No new white patches appear after application of acetic acid

Type of Transformation Zone*: **Type 2 or 3**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	No acetowhite area
Colour Intensity	
Margins and Demarcations	
Colour Uniformity	
Location	
VIA Result	VIA Negative
Remarks	Shiny white lesions with raised margins visible before application of acetic acid are characteristic of cervical condylomata, caused by infection with low-risk HPV types. These are benign lesions and do not have any malignant potential. In this case, the lesions are present before application of acetic acid, they are located away from the SCJ, and no new patches are seen after application of acetic acid. Therefore, the cervix has been categorized as VIA-negative

Cervix AFTER application of 5% acetic acid





Fig: 21.1

Fig: 21.2

Green arrow: Squamous epithelium

Pale pink appearance of atrophic squamous epithelium

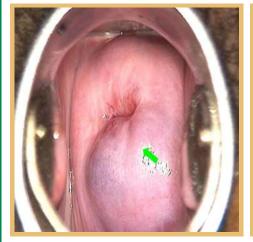
The SCJ is not visible. No acetowhite area

Type of Transformation Zone*: **Type 2 or 3**

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	No acetowhite area
Colour Intensity	
Margins and Demarcations	
Colour Uniformity	
Location	
VIA Result	VIA Negative
Remarks	Atrophic epithelium appears pale pink. With advancing age, the SCJ recedes into the endocervical canal and is no longer visible on the ectocervix. The transformation zone occupies a small area of the ectocervix

Cervix BEFORE application of 5% acetic acid

Cervix AFTER application of 5% acetic acid



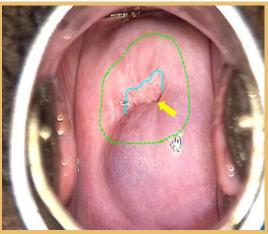


Fig: 22.1

Fig: 22.2

Green arrow: Squamous epithelium

The ectocervix is covered by mature squamous epithelium

Blue line: New SCJ

Yellow arrow: External os

Green line: Original SCJ

No acetowhite area

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	No acetowhite area
Colour Intensity	
Margins and Demarcations	
Colour Uniformity	
Location	
VIA Result	VIA Negative
Remarks	





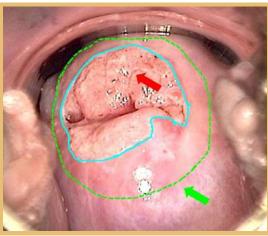


Fig: 23.1

Fig: 23.2

Red arrow: Columnar epithelium

Red velvety columnar epithelium is visible on the ectocervix

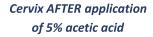
Blue line: New SCJ

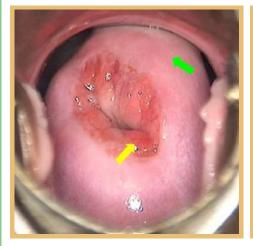
Red arrow: Columnar epithelium Green arrow: Squamous epithelium

Green line: Original SCJ

The columnar epithelium appears white temporarily. The SCJ sharply demarcates between the granular columnar epithelium and the smooth squamous epithelium. No acetowhite area

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent, pinkish white
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal. The epithelium soon regains its normal red colour





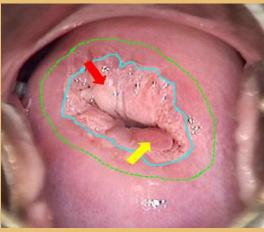


Fig: 24.1

Fig: 24.2

Green arrow: Squamous

epithelium

Yellow arrow: Polyp

A small mucous polyp is seen protruding through the external os

Blue line: New SCJ

Red arrow: Columnar epithelium

Yellow arrow: Polyp

Green line: Original SCJ

Thin acetowhite epithelium with tongueshaped projections is seen in the TZ at the 11 o'clock and 1 o'clock positions

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent, pinkish white
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	The mucous polyp appears faint white because of metaplasia







Fig: 25.1

Fig: 25.2

Red arrow: Columnar epithelium

Green arrow: Squamous epithelium

The ectocervix is covered by smooth pink squamous epithelium. A red patch of columnar epithelium is seen around the external os

Blue line: New SCJ

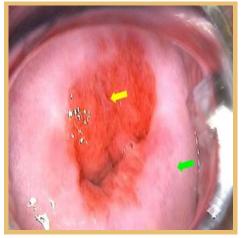
Blue arrows: Streak-like acetowhite areas

Green line: Original SCJ

A thin transparent layer of metaplastic epithelium is seen projecting towards the external os

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent/ Pinkish white
Margins and Demarcations	III-defined, discontinuous margins
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Negative
Remarks	The transparent acetowhitening without a distinct margin is due to squamous metaplasia





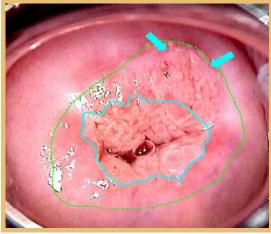


Fig: 26.1

Fig: 26.2

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

A red patch of columnar epithelium is seen around the external os

Blue line: New SCJ

Blue arrows: Acetowhite areas

Green line: Original SCJ

The SCJ is fully visible. Indistinct thin acetowhite patches are present at the 12–2 o'clock position

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent/ Pinkish white
Margins and Demarcations	III-defined, discontinuous margins
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	In transformation zone
VIA Result	VIA Negative
Remarks	Transparent acetowhite areas with indistinct margins indicate metaplastic epithelium. Such metaplastic epithelium is part of the transformation zone





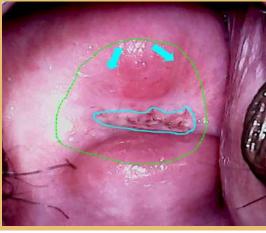


Fig: 27.1

Fig: 27.2

Yellow arrow: Lateral vaginal wall

A lax lateral vaginal wall is seen bulging between the speculum blades. The cervix appears normal Blue line: New SCJ

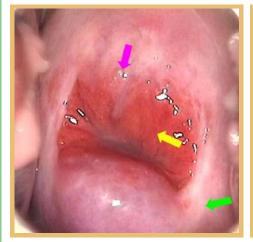
Blue arrows: Acetowhite areas

Green line: Original SCJ

The SCJ is fully visible. Streaks of thin acetowhite epithelium are seen at the 10 o'clock and 2 o'clock positions.

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	III-defined, blending with rest of the cervix
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Negative
Remarks	Streak-like acetowhitening without definite margins is not significant, and the cervix is categorized as VIA-negative





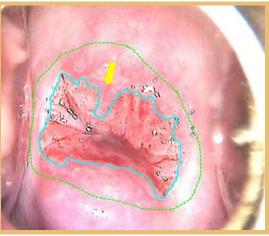


Fig: 28.1

Fig: 28.2

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

Pink arrow: Nabothian cyst

The cervix appears normal

Blue line: New SCJ

Yellow arrow: Tongue-shaped transparent

epithelium

Green line: Original SCJ

The columnar epithelium appears white temporarily. Transparent acetowhite epithelium with tongue-shaped projections towards the external os is seen at the 12 o'clock position

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent/ Pinkish white
Margins and Demarcations	Ill-defined, discontinuous margins
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Arising from SCJ, in transformation zone
VIA Result	VIA Negative
Remarks	Tongue-shaped transparent epithelium projecting towards the external os indicates metaplasia







Fig: 29.1

Fig: 29.2

Squamocolumnar junction is fully visible on the ectocervix

Squamocolumnar junction is visible around the external os. Thin acetowhite areas on the anterior and posterior lips with irregular margins

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent / Pinkish white
Margins and Demarcations	III-defined, blending with rest of the cervix
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Outside transformation zone
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal





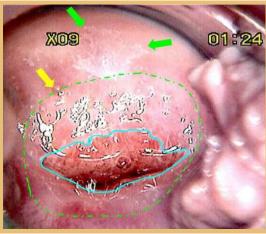


Fig: 30.1

Fig: 30.2

The cervix appears normal

Blue line: New SCJ

Green arrows: Acetowhite area

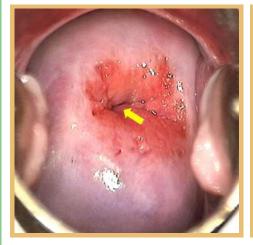
Green line: Original SCJ

Yellow arrow: Nabothian Cyst

The outer limit of the TZ can be well delineated by the location of the Nabothian cyst. The thin acetowhite area at the 12 o'clock position is located outside the TZ and is not significant

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Thin acetowhite area
Margins and Demarcations	Sharp and irregular
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Away from transformation zone (satellite lesions), far away from SCJ
VIA Result	VIA Negative
Remarks	Acetowhite areas located outside the transformation zone are not significant





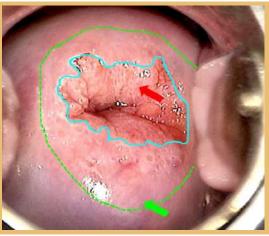


Fig: 31.1

Fig: 31.2

Yellow arrow: External os

The columnar epithelium is fully visible around the external os

Blue line: New SCJ

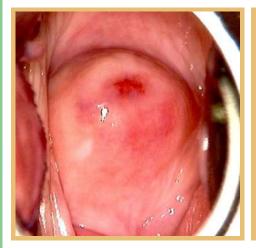
Red arrow: Columnar epithelium Green arrow: Squamous epithelium

Green line: Original SCJ

Temporary blanching of the columnar epithelium. Patchy acetowhite area without any distinct margin at 5 o'clock position. The transformation zone is the pale area on the ectocervix

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	Diffused margin blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Outside transformation zone
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal. Patchy and thin acetowhite areas without any distinct margin close to the SCJ indicate metaplastic changes. Such changes are normal and VIA is negative





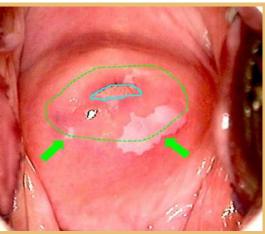


Fig: 32.1

Fig: 32.2

The cervix appears normal

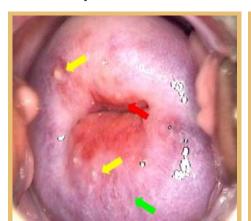
Blue line: New SCJ

Green arrows: Acetowhite epithelium

Green line: Original SCJ

Milky white areas with geographical margins are visible at the 6 o'clock position, detached from the SCJ. Note the satellite lesion at the 8 o'clock position

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Opaque, dense acetowhite area
Margins and Demarcations	Distinct, sharp margins
Colour Uniformity	Distinct white patch on cervix, not blending with rest of the cervix
Location	Away from transformation zone (satellite lesions), far away from SCJ
VIA Result	VIA Negative
Remarks	Milky white areas with geographical margins located away from the SCJ are due to low-risk HPV infection



Cervix AFTER application of 5% acetic acid

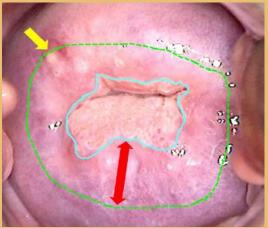


Fig: 33.1

Red arrow: Columnar epithelium

Green arrow: Squamous epithelium

Yellow arrows: Nabothian cysts

The columnar epithelium is fully visible on the ectocervix

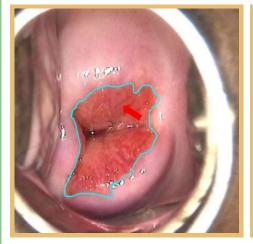
Fig: 33.2

Blue line: New SCJ
Green line: Original SCJ
Yellow arrow: Nabothian cyst
Red arrow: Transformation zone

The columnar epithelium appears white temporarily. The outer limit of the TZ can be delineated by the location of the nabothian cyst at the 10 o'clock position. No acetowhite area in the TZ

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent/ Pinkish white
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Outside transformation zone
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal





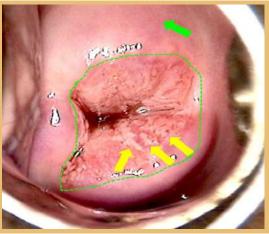


Fig: 34.1

Fig: 34.2

Red arrow: Columnar epithelium

Blue line: SCJ

The columnar epithelium is visible as a red patch around the external os

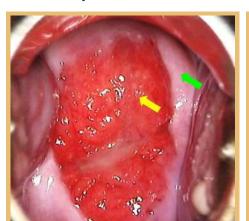
Green arrow: Squamous epithelium

Green line: New SCJ

Yellow arrows: Diffuse acetowhite areas

Diffuse streaks of acetowhitening on the columnar epithelium suggest metaplasia. No acetowhite area on the squamous epithelium

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	Diffused margin blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	The indistinct acetowhite areas on the ectropion are due to metaplasia starting at the tips of the villi of the columnar epithelium. The villi flatten and coalesce to form thin sheets of pinkish white metaplastic epithelium. VIA is negative because there is no definite opaque white patch



Cervix AFTER application of 5% acetic acid

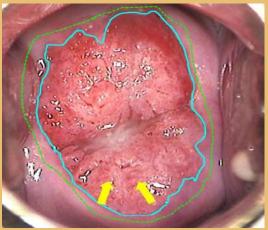


Fig: 35.1

Yellow arrow: Columnar epithelium

Green arrow: Squamous epithelium

The central bright red velvety area is the columnar epithelium. The smooth pink squamous epithelium can be seen at the periphery

Blue line: New SCJ

blue lille. New 3CJ

Yellow arrows: Granular appearance with blanching of columnar epithelium

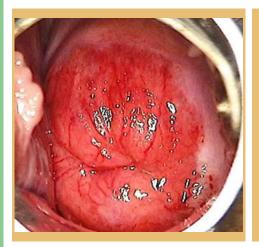
Fig: 35.2

Green line: Original SCJ

The granular appearance of the columnar epithelium becomes prominent

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	Diffused margin blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	The transformation zone (TZ) is just at the periphery of the ectropion. The TZ has just started forming. The treatment of such cases by thermal ablation often requires multiple applications of the probe to cover the ectropion as well as the TZ.





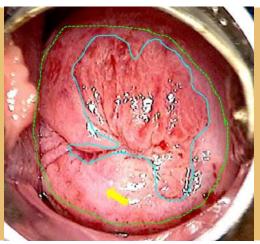


Fig: 36.1

Fig: 36.2

Large ectropion seen as a bright red patch around the external os

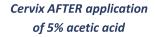
Blue line: New SCJ

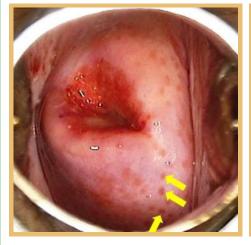
Yellow arrow: Dot-like white patches on columnar epithelium

Green line: Original SCJ

The granular surface of the columnar epithelium is prominent. Transparent white areas are due to metaplasia

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	Diffused margin blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	Metaplastic epithelium may be acetowhite. However, the acetowhitening is thin, is transparent, and does not have any definite margins, as in this case





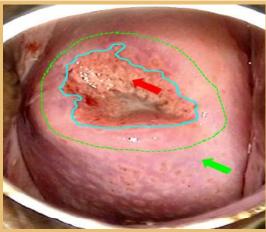


Fig: 37.1

Fig: 37.2

Yellow arrows: Red patches The SCJ is fully visible.

Multiple small red patches, giving rise to strawberry appearance of the cervix

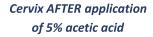
Blue line: New SCJ

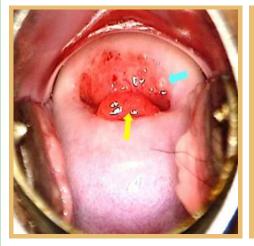
Red arrow: Columnar epithelium **Green arrow:** Squamous epithelium

Green line: Original SCJ

The columnar epithelium blanches temporarily. No definite acetowhite area is seen

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal. Strawberry appearance of the cervix is characteristic of infection by Trichomonas vaginalis





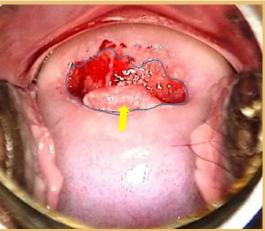


Fig: 38.1

Fig: 38.2

Yellow arrow: Polyp

Blue arrow: Nabothian cyst

A mucous polyp is seen protruding through the external os. A nabothian cyst is present on the anterior lip (at the 2 o'clock position)

Blue line: New SCJ

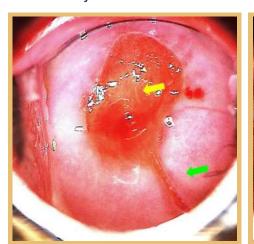
Yellow arrow: Thin acetowhite area on

polyp

Green line: Original SCJ

The SCJ is fully visible. The polyp has a thin acetowhite area

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium and cervical polyp
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	Thin acetowhitening on the polyp indicates squamous metaplasia. (Note: Persistent/dense acetowhite areas on polyps should be categorized as VIA-positive)



Cervix AFTER application of 5% acetic acid

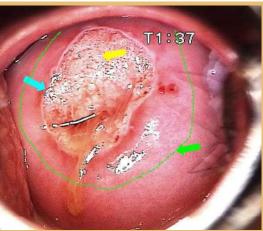


Fig: 39.1

Yellow arrow: Columnar epithelium Green arrow: Squamous

The columnar epithelium is visible as a red patch around the external os. The rest of the ectocervix is covered by pink squamous

epithelium

epithelium

Fig: 39.2

Blue arrow: Prominent and thick line-like

acetowhitening of SCJ

Yellow arrow: Columnar epithelium

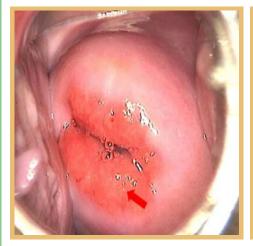
Green arrow: Squamous epithelium

Green line: Original SCJ

The granularity of the columnar epithelium is prominently visible. The SCJ is visible as a white line between the columnar epithelium and the squamous epithelium

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Streak like acetowhitening in columnar epithelium and cervical polyp
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	The thick line-like acetowhitening at the junction between the smooth squamous epithelium and the granular columnar epithelium is the SCJ itself





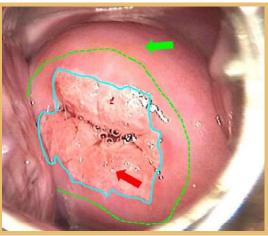


Fig: 40.1

Fig: 40.2

Red arrow: Columnar epithelium

Red velvety columnar epithelium is visible on the ectocervix

Blue line: New SCJ

Red arrow: Columnar epithelium Green arrow: Squamous epithelium

Green line: Original SCJ

The SCJ becomes prominent. The columnar epithelium appears white temporarily. No acetowhite area on the TZ

Characteristics of Acetowhite Lesions	VIA Interpretation
Speed of Appearance	Appeared slowly and disappeared quickly
Colour Intensity	Transparent, pinkish white
Margins and Demarcations	Diffused margins blending with columnar epithelium
Colour Uniformity	Discontinuous acetowhite areas- suggestive of squamous metaplasia
Location	Columnar epithelium- outside TZ
VIA Result	VIA Negative
Remarks	Temporary blanching of the columnar epithelium after application of acetic acid is normal. The epithelium soon regains its normal red colour



GUIDELINES FOR VIA SCREENING DURING COVID-19

OBJECTIVE

To guide health care staff on safety precautions while conducting VIA screening under Covid-19 to ensure their safety as well as the safety of beneficiaries coming for screening

SAFETY PRECAUTIONS FOR HEALTHCARE SERVICE PROVIDERS

1. BENEFICIARIES COMING FOR VIA SCREENING



Screen for signs and symptoms of COVID-19 including fever respiratory and /or gastro-intestinal symptoms



Check for place of residence- whether a known hotspot area or containment zone



Direct symptomatic cases to appropriate health facilities, do not conduct screening

2. EXAMINATION AREA



Room should be well ventilated and must be in non-covid area of health facility



Ensure regular disinfection of high contact surfaces (doors and doorknobs, nursing station) of examination room



Hand sanitizer should be available preferably with a foot-based dispenser

3. DURING VIA SCREENING, SERVICE PROVIDERS MUST



Wear all the following protection equipment during screening -

1. Medical mask 2. Apron 3. Gloves 4. Caps 5. Shoe cover



Wash hands with soap and water for at least 20 seconds before and after each screening

GUIDELINES FOR VIA SCREENING DURING COVID-19



Before every screening sanitize examination table and cover it with disposable sheets



After every screening discard disposable sheets and sanitize examination table



Sterilize all examination instruments per standard protocol after every use



In case of vigorous cough by beneficiary during screening, decontaminate the area before next screening



Cleaning staff should also wear protection equipment including mask, gloves, cap and aprons



Discard all the waste generated during screening in appropriate biomedical waste bag as per the protocols

4. PRECAUTIONS FOR BENEFICIARIES COMING FOR VIA SCREENING



Ensure availability of safe waiting area where physical distancing norms could be followed



Disinfect all the environmental areas of waiting area before hand



Ask beneficiaries to wear triple layer mask at all times



Hand sanitizer should be available in waiting area



Movement of beneficiaries within the health facility should be minimised



Ask beneficiaries to wash hands before and after the screening preferably with soap and water

For detailed information refer to Trainer's Manual Guidelines for Common Cancer Screening During COVID-19, Page number: 133-136

https://drive.google.com/drive/folders/1iRIr2RVTFbfB9Vh4Jq7E60jBoVTbZEzE?usp=sharing