



## ANTEPARTUM HAEMORRHAGE IN PREGNANCY BEYOND OBSTETRICS: HSIL AT 35 WEEKS : DIAGNOSTIC PITFALLS AND MANAGEMENT APPROACH

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**ABSTRACT** **Background:** High-grade squamous intraepithelial lesion (HSIL) during pregnancy is rare, with an incidence of approximately 1 per 1,000 pregnancies [1]. Most cases are diagnosed incidentally during evaluation of vaginal bleeding or abnormal cervical appearance. **Case Presentation:** A 32-year-old grandmultipara (G6P4L3A1) with 35 weeks gestation presented with painless profuse vaginal bleeding. Conservative management approach was followed for management of APH. Ultrasound ruled out placenta previa and abruptio placentae. Per speculum examination revealed suspicious cervix that bled on touch. Pap smear reported ASC-H (Atypical Squamous Cells – cannot exclude HSIL) [2]. Colposcopy directed cervical biopsy revealed a suspicious cauliflower-like lesion, replacing the posterior lip of cervix and biopsy confirmed HSIL. Conservative management was followed by Elective LSCS was performed at 37 weeks. Six weeks postpartum LEEP (Loop Electrosurgical Excision Procedure) was performed with complete excision and patient is on regular follow up for cervical cancer screening with cotest with HPV DNA testing and Pap smear [3]. **Conclusion:** Careful cervical evaluation in pregnant women with APH is essential. Deferring excisional treatment until postpartum, when clinically appropriate, minimizes maternal and fetal risks while ensuring oncological safety [4] with safe motherhood.

**KEYWORDS :** HSIL, pregnancy, cervical intraepithelial neoplasia, ASC-H, LEEP, APH

### INTRODUCTION

The incidence of HSIL during pregnancy is estimated at approximately 1 per 1,000 pregnancies [1], but may be more with improved screening modalities. Extraplacental causes of Antepartum Hemorrhage (APH), which is bleeding from the genital tract after 24 weeks of pregnancy, are relatively rare, accounting for small number of all APH cases. Most cases are incidentally discovered during speculum examination or Pap smear taken in the setting of unexplained vaginal bleeding or abnormal appearance of the cervix.

Cervical intraepithelial neoplasia (CIN) and high-grade squamous intraepithelial lesions (HSIL) usually remain asymptomatic and are often detected during routine cervical screening [2]. We present a rare case of Antepartum haemorrhage with third trimester painless bleeding. Clinical examination and ultrasound ruled out placenta previa and abruptio placentae. A careful speculum examination which revealed a suspicious cervical cauliflower like lesion. Pap smear reported ASC-H (Atypical squamous cells - cannot exclude HSIL). Colposcopy directed biopsy confirmed HSIL. Patient paved the way to safe motherhood by elective caesarean section at 37 weeks. LEEP was performed 6 weeks postpartum and HSIL was reconfirmed. This reinforces the significance of per speculum examination in all cases of APH to look for any extraplacental cause [3] of cervical origin. Patient is on follow up with pap smear and HPV DNA screening and is performing well.

### Case Report

A 32-year-old grandmultipara woman, Gravida 6 Para 4 Living 3 Abortion 1 (G6P4L3A1), at 35 weeks of gestation presented to the emergency department with complaints of painless vaginal bleeding for the past 24 hours. The bleeding was excessive in amount, fresh red, not associated with passage of clots, abdominal pain, trauma, or leaking per vaginum. There was no history of trauma or sexual intercourse. There was no prior episode of bleeding per vaginum during pregnancy. There was no associated fever, urinary symptoms, or recent infection or contact bleeding. No history of substance abuse, smoking, or use of hormonal contraceptives prior to conception. No history suggestive of hypertensive disorders, diabetes, or thyroid

dysfunction during pregnancy. Routine antenatal investigations were within normal limits: Hemoglobin: 10.2 g/dL, Blood group: B positive, VDRL, HBsAg, HIV, HCV: Non-reactive, Thyroid profile: Normal, GCT with 75 gram of glucose: Normal. Received two doses of Td vaccination. Regular intake of iron and calcium supplements during pregnancy. Clinical Examination at Presentation: Vitals: BP 118/76 mmHg, Pulse 86 bpm, afebrile. Per abdominal examination: Fundal height corresponded to 36 weeks, uterus relaxed, non tense, non tender, longitudinal lie, cephalic presentation, FHS 144 bpm and regular. Per speculum examination: Cervix appeared unhealthy, suspicious cauliflower lesion of about 2 x 2 cm replacing the posterior lip of the cervix, bled on touch and mild trickle of blood from cervical surface noted. Per vaginal examination: Cervix soft, uneffaced, os closed, growth of 2 x 2 cm felt on posterlip of cervix, blood seen on gloved finger.

**Investigations:** Ultrasound (Emergency): Singleton intrauterine fetus in cephalic presentation, AFI 13 cm. Placenta posterior upper segment, away from the os. No retroplacental clot or signs of abruption. Pap Smear: ASC-H (Atypical Squamous Cells – cannot exclude HSIL) [2]. NST: Reactive. CBC: Hemoglobin 9.8 g/dL, WBC 8,700/mm<sup>3</sup>, Platelets 2.1 lakh/mm<sup>3</sup>. CRP & Coagulation Profile: Within normal limits. Colposcopy was performed, showing a transformation zone extending outside the visible field, with a cauliflower lesion of about 2 x 2 cm replacing the posterior lip of the cervix. VIA showed aceto-white areas from 4 o'clock to 8 o'clock positions, suggestive of possible dysplasia. Colposcopy directed cervical biopsy was performed from the suspicious area. Histopathological examination confirmed HSIL.

**Management And Follow-up:** In view of abnormal cervical findings and gestational age, patient was managed conservatively and monitored. A planned LSCS was performed at 37 weeks.

Colposcopy and LEEP was scheduled 6 weeks postpartum and performed under short general anesthesia. Intraoperatively, cervix was hypertrophied, vascular, and unhealthy. VIA showed aceto-white areas from 4 o'clock to 8 o'clock positions. VILI revealed iodine-negative

areas from 4 o'clock to 7 o'clock. Transformation zone excised, hemostasis achieved, and specimen sent for histopathological confirmation. Histopathology reconfirmed HSIL.

Patient is on follow up with pap smear and HPV DNA screening which was negative 6 months post LEEP and later on yearly screening was done according to ASCCP [3] (American Society for Colposcopy and Cervical Pathology) Risk-Based Management Guidelines [3].

## DISCUSSION

Cervical cytological abnormalities during pregnancy are uncommon but clinically important. The physiological hypertrophy and vascularity of the cervix, increased mucus production, and decidual changes may obscure or mimic pathological findings. Distinguishing physiological changes from dysplasia requires skillful colposcopic evaluation [4].

The incidence of HSIL during pregnancy is estimated at approximately 1–2 per 1,000 pregnancies, but may be increasing with improved screening. Most cases are incidentally discovered during speculum examination or Pap smear taken in the setting of vaginal bleeding or abnormal appearance of the cervix.

In this case, the patient presented with third-trimester painless bleeding. Common causes like placenta previa and abruption were excluded by clinical examination and ultrasound. A careful speculum exam revealed a suspicious cervical lesion that prompted further cytologic evaluation. This reinforces the significance of speculum examination in all cases of bleeding per vaginum during pregnancy.

Pap smear revealed ASC-H, a cytological category indicating atypical squamous cells where HSIL cannot be ruled out. ASC-H has a strong association with underlying CIN 2 or CIN 3 [5] on histology [5] and warrants colposcopic evaluation [4].

Colposcopy showed a transformation zone extending outside the visible field, with a suspicious cauliflower-like lesion of about 2 x 2 cm replacing the posterior lip of the cervix. VIA showed aceto-white areas from 4 o'clock to 8 o'clock positions, suggestive of possible dysplasia. A colposcopy directed cervical biopsy was taken from 4 to 7 o'clock positions. Biopsy confirmed HSIL, LEEP was performed 6 weeks postpartum under general anesthesia and histopathology reconfirmed HSIL.

Management of HSIL during pregnancy is typically conservative [4]. The ASCCP and ACOG recommend deferring excisional procedures unless invasive cancer is suspected. In this case, the absence of colposcopic features of invasion allowed for safe postponement of treatment until postpartum. This approach reduces risks of pregnancy loss, hemorrhage, or preterm labor associated with invasive procedures like LEEP during gestation.

The postpartum LEEP was uneventful, with complete excision of the lesion. Follow up pap smear and HPV testing was done at 6 month intervals and is being followed up annually according to ASCCP [3] (American Society for Colposcopy and Cervical Pathology) Risk-Based Management Guidelines [3].

A retrospective cohort study by Yost et al. (1999) evaluated 279 pregnant patients with antepartum biopsy-proven CIN II or CIN III, assessing histologic outcomes postpartum. They reported impressive regression rates-68% for CIN II and 70% for CIN III-with no instances of progression to invasive carcinoma. Persistence was observed in a minority (25–30%), and advancement to a higher grade occurred in just 7% of CIN II cases. These findings support the safety and efficacy of deferring invasive interventions until after delivery, particularly when invasive disease has been ruled out-mirroring the management in the current case, in which LEEP was appropriately postponed to 6 weeks postpartum.

## This Case Emphasizes:

- The utility of speculum exam and Pap smear even during pregnancy.
- Colposcopy's critical role in evaluating abnormal cytology.
- The safety and effectiveness of delayed treatment (postpartum LEEP).
- The need for multidisciplinary coordination in obstetric oncology cases.

HSIL in pregnancy, though rare, must not be overlooked, especially in patients presenting with unexplained vaginal bleeding or an unhealthy cervix on examination.

## CONCLUSION

This case highlights the significance of careful per speculum examination in pregnant women with extraplacental cause of APH. A thorough per speculum and cytology can help identify rare but significant non obstetrical cervical pathologies like HSIL. A multidisciplinary and staged approach-including postpartum definitive treatment-ensures both maternal safety and optimal oncological outcomes.



**Figure 1:** Per speculum showing suspicious cervix that bleeds on touch.

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