Case Report
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Juvenile high grade squamous intraepithelial lesion (HGSIL): A rare case

Abstract

Human papillomavirus (HPV)infection consists the majority of cervical precancerous lesions and cancers.

Various screening programmes aim in indentifying HPV infection and preventing cervical cancer.

We present a 20-year-old female patient whose first pap smear revealed atypical squamous cells of undetermined significance (ASCUS).

Pap smear, followed by genotyping evaluation, revealed high-risk HPV 33 infiltration.

Colposcopy and cervical biopsies were performed due to suspicious cervical lesions, revealing cervical intraepithelial neoplasia grade II and focal high grade squamous intraepithelial lesion.(Grade III.)

Patient underwentloop electrosurgical excision procedure (LEEP) due to assiduous imaging findings. Histopathologic establishment revealed anatomic areas of CIN III. (Cervical Intraepithelial Neoplasia)

Aim of our study represents proper diagnosis and therapeutic mapping of a juvenile high grade cervical intraepithelial lesion, depending always on fertility preservation.

Keywords: HGSIL, cervical biopsy, LOOP excision

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Introduction

Human papilovirus (HPV) represents a double-stranded DNA virus, depicting the most common reproductive tract infection. HPV infection consists the major causative entity in cervical cancer. Subtypes of HPV are more than 200, dividing into low-risk or high-risk, depending on their oncogenic ability.

High-risk HPV types, such as HPV 16,18,31,33,34,35,39,45,5 1,52,58,59,66,68 and 70 can lead to serious cervical intraepithelial neoplasia and cervical cancer.[1] Cervical intraepithelial neoplasia (CIN) represents a premalignant histological abnormality leading into three categories classification.

CIN I is characterized by mild dysplasia, CIN II is a moderate dysplasia and CIN III is considered as severe dysplasia or carcinoma in situ.[2]

According to Bethesda System for reporting cervical cytology the epithelial cell abnormalities can range from atypical squamous cell (ASC), low grade squamous intraepithelial lesion (LSIL) and high grade squamous intraepithelial lesion (HSIL). LSIL includes the term CIN I and HSIL includes the terms CIN II and III and refers to moderate and severe dysplasia.[3]

Case

A 20-year-old female patient, (G0P0), HPV vaccinated prior to sexual activity, admitted to our department concerningher first routine pap test. Pap smear evaluation, revealed atypical squamous cells of undetermined significance (ASCUS). After a period of six months, pap smear repetition, lead to genotyping establishment and high risk type 33 infiltration.

Colposcopy and cervical biopsies were performed due to suspicious cervical lesions, revealing cervical intraepithelial neoplasia grade 2 and focal high grade squamous intraepithelial lesion.

After one year of conservative approach we decided to perform loop electrosurgical excision procedure after briefing the young patient, depending always on fertility preservation (Figure 1).

Histopathologic establishment revealed high grade squamous intraepithelial lesion which corresponds to CIN III, from 4 o'clock to 9 o'clock. The cone-shaped segment was orientated with a suture at 12 o'clock. Surgical margins revealed any signs of malignancy.

After a short period of time, follow up inspection did not depict any pathological entities, consisting of fibrous transformation of the anatomic area (Figure 2).

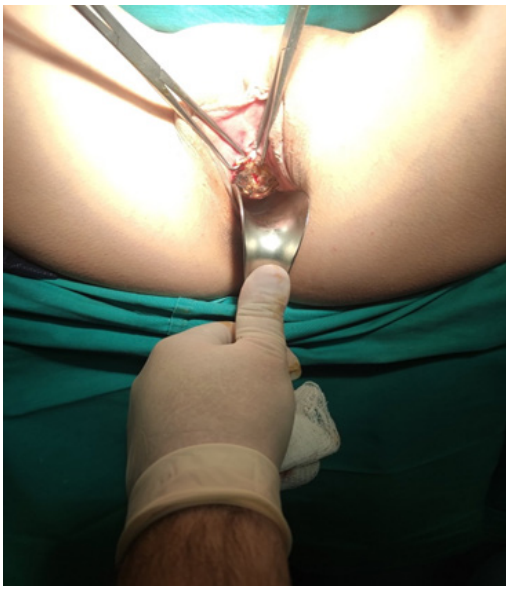

Figure 1 Operative depiction of cervical anatomic area after conization.

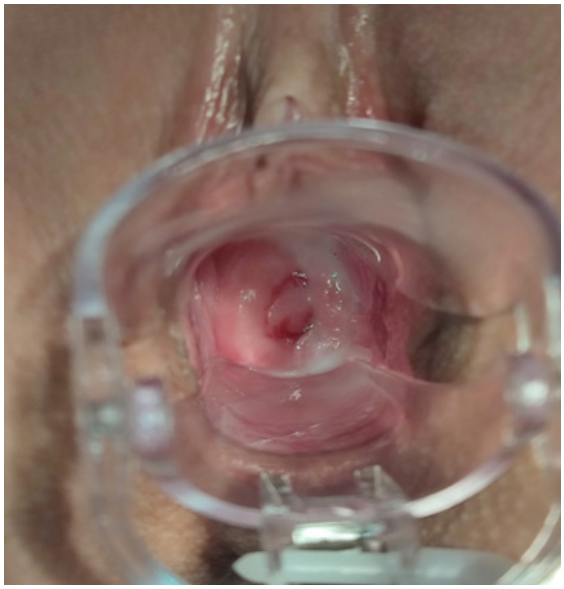

Figure 2 Depiction of cervical anatomic area three months after conization.

Discussion

High grade squamous intraepithelial lesion consists mostly consider as a precancerous lesion requiring proper diagnosis and assiduous therapeutic mapping. Especially, persistent dysplasia and persistent infection of high-risk HPV can lead to invasive cervical cancer.[2]

Our patient, besides her young age and previously full vaccination, was diagnosed with persistent HSIL and high-risk HPV 33 infection, despite our conservative treatment approach.

Cervical conisation was mandatory due to histopathologic imaging findings. Conization of the cervix represents a surgical procedure that involves the excision of a cone-shaped segment of the cervix. This cone-shaped segment includes the transformation zone and the dysplastic cervical lesion.

In our case, the conisation was performed via a loop electrosurgical excision procedure (LEEP).

The cervix portion was sent for pathologoanatomic evaluation, depending on free margins anatomic area.[4]

Juvenile age, G0P0, lead to assiduous patient's briefing concerning the potential adverse obstetrical effects, associated with post conization outcomes.

Surgical treatment of cervical dysplasia, such as conisation, is strongly related to increased risk of preterm birth below 37 weeks of gestation. Increased risk is depending on the repeated intervention and the depth of the surgical excision.[5]

According to conducted studies, women with untreated cervical intraepithelial neoplasia have alsoan increased risk of preterm birth and adverse obstetrical outcomes comparing to general population.[6]

However, most essential entity, consists the recurrence avoidance of cervical lesions through proper follow up.[7]

Conducted studies through current bibliography, recommend that six months after conization, cytology and HPV testing should be performed. If cytology is negative for abnormal cells and HPV testing reconvertsnegative, screening.

If HPV testing is still positive for high-risk HPV or cytology reveals abnormal results, co-testing should be repeated within six months or earlier depending on the results. Other studies suggest that only HPV testing, six months post-conization is enough for the follow up algorithm. A negative HPV testing is safe for returning to routine screening.[8]

Conclusion

High risk HPV infection can lead tohigh grade squamous intraepithelial lesion in young patients.

Screening is essential to indentify and prevent severe dysplasia and cervical cancer.

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None.

Conflicts of interest

All authors declare any financial interest with respect to this manuscript.

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