CASE REPORT

Cervical deciduosis imitating dysplasia

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SUMMARY

Ectopic cervical deciduosis is generally an accidental finding during pregnancy, and usually presents without any symptoms or need for therapeutic intervention. However, it can sometimes imitate dysplasia or carcinoma. We report a case of a 34-year-old G2P0, with a history of cervical dysplasia, presenting at 11 weeks of gestation, with vaginal blood loss. During examination, lesions mimicking dysplasia were found on the cervix. Histological examination reported cervical deciduosis. Deciduosis is a benign change during pregnancy and will resolve spontaneously. With the increasing use of cytology and colposcopy, the reported incidence is growing. When it is hard to differentiate between dysplasia and deciduosis, histological confirmation should be considered.

BACKGROUND

Ectopic cervical deciduosis is a benign change during pregnancy. However, it can sometimes imitate dysplasia or carcinoma. Our case demonstrates this fact and will help to raise awareness about cervical deciduosis as a possibility in suspected malignant lesions encountered during pregnancy. It will help others to differentiate it from premalignant and malignant lesions.

CASE PRESENTATION

A 34-year-old woman, a G2P0 with vaginal blood loss, presented at 11 weeks of gestation. One year earlier, she had undergone colposcopically-guided biopsy of the cervix for moderate dysplasia, which had confirmed cervical intraepithelial neoplasia grade 3 (CIN3). She was treated by a large loop excision of the transformation zone, which confirmed the diagnosis of CIN3. Subsequent smears at 6 months and 1 year were normal. She now reported with vaginal bleeding at 11 weeks of pregnancy. While taking a smear, several lesions varying from 5 to 15 mm were seen on the cervix. Owing to the clinical presentation and history of a CIN3 lesion, the patient was seen for colposcopy 1 week later. As shown in [figure 1A](#), the colposcopy showed several polyp-like lesions on the cervix, which, after application of acetic acid, showed no abnormalities. Although the Pap smear and colposcopy were reassuring, colposcopy was repeated 9 weeks later at a gestational age of 21 weeks. At that time, endometrial polyp, cervical adenoma or epithelial polyp were considered. During the second colposcopy, lesions showed progression in size and were more pronounced than during the first examination ([figure 1B](#)). A third colposcopy was planned for 4 weeks later, during which a

biopsy of one of the lesions was taken ([figure 1C](#)). Pathological examination showed no dysplasia but reported the presence of cervical deciduosis. The tissue fragment was covered with a squamous layer of regular well-differentiated epithelium, and the stroma was oedematous with widely light pink cytoplasm and small regular light nuclei with fine chromatin and small nucleolus. There was an intermediate mixed infiltrate with several polymorph nuclei, some lymphocytes and multiple plasma cells ([figure 2](#)). Thus, no further treatment was necessary and an appointment for colposcopy 8 weeks after labour was made. At 40 weeks of gestation, the patient underwent a caesarean section due to failure of progress. In the next follow-up, the cervical lesions were almost completely resolved ([figure 1D](#)) and the cytological report again showed a normal cervical cytology.

DISCUSSION

Decidual transformation of the endometrium is a physiological process of the uterus during pregnancy. When it is located at places other than the endometrium, it is called ectopic decida or deciduosis. The most common places for ectopic decida are the cervix, vagina¹ and the ovary,² but other locations such as the appendix, omentum, diaphragm or peritoneum, have been reported.³ Deciduosis is generally an accidental finding during pregnancy and is mostly detected during a caesarean section, appendectomy, an ectopic pregnancy or during cytological follow-up of cervical premalignant dysplastic changes. The correct diagnosis is usually determined after histological examination. Most patients are asymptomatic and require no therapeutic intervention. However, sometimes life-threatening events can occur, such as

Figure 1 Progression of lesions in (A), (B) and (C), spontaneously resolving in (D) at, respectively, 12, 21 and 25 weeks of gestation, and at 8 weeks after labour.

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Figure 2 Pathology.

intra-abdominal haemorrhage,⁴ recurrent pneumothorax,⁵ perforating appendicitis⁶ and obstruction of labour due to gross peritoneal decidualosis.⁷

Decidual change is a progesterone-induced adaptation of the stromal tissue. This process is key for the preparation of implantation in pregnancy. Zaytsev *et al*⁸ suggest two theories for the pathogenesis of ectopic peritoneal decidualosis. The first proposes that the superficial coelomic stroma undergoes a metaplasia sensitive to progesterone. The second suggests decidual cells are already located at other places. Concerning the cervix, the current opinion is that decidual change is a reaction of normal stromal cells to hormonal stimulation.⁹ There is a broad variation in the reported prevalence of decidualosis,^{10 11} as most cases are asymptomatic and found incidentally. Colposcopy is frequently used to investigate women diagnosed with abnormal cervical smears. When women are investigated during pregnancy or immediately postpartum, decidualosis of the cervix can be encountered. Decidual change presents itself as small, elevated, vascular nodules or, more rarely, as sessile polyps. When pregnant women are suspected of cervical dysplasia, a colposcopic examination is required as soon as possible. Owing to hypertrophy, eversion, hyperplasia of endocervical glands and vascularisation of cervical epithelial,¹² the colposcopic examination can be hard to interpret, and the lesions can look very similar to invasive carcinoma.^{1 13} Other diagnoses such as a cervical polyp or adenoma, infection, cervical dysplasia or carcinoma should be considered. Histological investigation may be required to differentiate between several cervical lesions, as dysplasia, but a normal cervical cytology, the absence of abnormalities during colposcopic examination and the presence of the lesion(s) outside the transformation zone should help to differentiate between dysplasia and decidualosis. In conclusion, decidualosis is a benign change of the cervix during pregnancy and will resolve spontaneously within 4–6 weeks postpartum. Nevertheless, the cervical lesions may appear as an advanced stage of dysplasia and even carcinoma. Therefore, a biopsy for

histological confirmation should be considered in case the clinical diagnose is unclear.

Learning points

- ▶ Cervical decidualosis is a benign change during pregnancy and will resolve spontaneously within 4–6 weeks postpartum.
- ▶ Decidual change presents itself as small, elevated, vascular nodules or, more rarely, as sessile polyps. These lesions can look very similar to invasive carcinoma.
- ▶ When it is hard to differentiate between dysplasia and decidualosis, histological confirmation should be considered.
- ▶ The case also demonstrates the importance of examination by a speculum to look for local causes of bleeding in cases of abortion and ante partum haemorrhage.

Contributors DAvD wrote most of the report. BH treated the patient, and supervised and helped edit parts of the article. A-MvH helped with the final editing of the article. RN wrote and edited parts of the section on the pathology examination.

Competing interests None declared.

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