

A large hymenal polyp in a 21-year-old virgin

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SUMMARY

Pathological conditions of the hymen are rare in everyday medical practice. They are usually encountered in the pediatric patient population and are sometimes a matter of forensic interest. We report an interesting case of a large hymenal polyp in an adolescent virgin that presented only a cosmetic problem. The polyp was excised, the hymenal ring was preserved, and the sample was histologically verified.

Introduction

The hymen is a thin connective tissue membrane at the distal end of the vagina, which partially closes the introitus. It is relatively rare to encounter hymenal pathology in everyday clinical practice. When it happens it is usually a case of an imperforate hymen in an adolescent girl that has led to hematocolpos or it is an incidental finding of a small hymenal polyp in girls just after birth that quickly and spontaneously regresses once estrogen levels fall to normal prepubertal levels (1).

Case report

A 21-year-old virgin patient was seen in our clinic because of her complaint about the cosmetic effect of a tissue proliferation protruding from her labia majora. The proliferation had been slowly but constantly growing ever since she had her first

period. Her general practitioner asked us for an opinion and treatment of the condition as needed.

During our initial examination a thorough history was taken, which was unremarkable. Inspection of the external genitalia showed the labia majora, labia minora, and perineum without any macroscopic signs of pathological processes. The hymenal ring was intact. At the 6 o'clock position of the hymenal ring we noted a pinkish pendulous tissue proliferation with the appearance of normal hymen. On palpation it was painless and had a rubbery consistency. There were no signs of contact bleeding or inflammation. The dimensions of this polypoid proliferation were $63 \times 9 \times 1.5$ mm (Figs. 1, 2).

The patient is *virgo intacta*, with no relevant gynecological history, so we did not perform an internal examination. Instead, an ultrasound exam of the patient's pelvis was carried out in order to exclude the possibility of internal genital organ

KEY WORDS

hymen, polyp, vulva, virgo intacta, adolescence



Fig. 1. Macroscopic appearance of hymenal polyp in situ.



Fig. 2. Macroscopic appearance of hymenal polyp in situ, exposed.

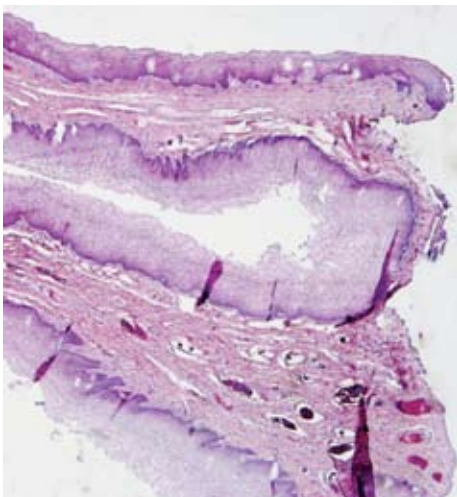


Fig. 3. Base and tip of polyp. Fibrovascular stroma covered with stratified non-cornified squamous epithelium without atypia.

malformation and/or any other relevant pathology. Ultrasound examination showed reproductive organs of normal shape and structure.

Routine laboratory analyses of the blood (complete and differential blood count) were in normal ranges. We also examined the level of estrogen from the same sample, which was normal.

We decided to excise the polyp completely under general intravenous anesthesia and to send the tissue for histopathological examination. After we explained all the relevant details about her condition, the patient consented to the procedure. The polyp was excised at its base and great attention was paid to preservation of the hymenal ring. The operative wound was sutured with two resorbable sutures. Histopathological examination of the tissue sample confirmed the benign nature of the proliferation: the fibrovascular stroma was covered with stratified non-cornified squamous epithelium without any signs of atypia (Fig. 3).

After a short period of observation after the procedure, the patient was released to home care without any bleeding or pain (Fig. 4).

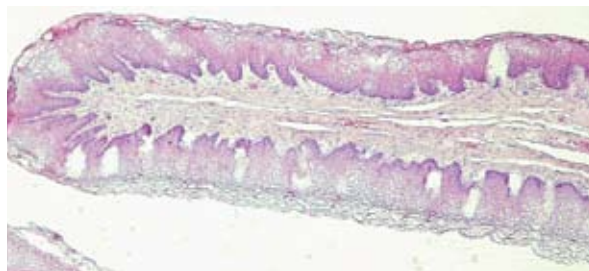


Fig. 4. Macroscopic appearance of hymenal ring after removal of hymenal polyp.

Discussion

The hymen is a thin, incomplete membrane with a core of fibrous tissue covered by non-cornified stratified epithelium. It exists until the first intercourse, after which only remnants remain. The hymen is formed at the end of the canalization process of the vaginal plate around the fifth month of intrauterine development and it separates the now canalized vagina from the urogenital sinus (1). The exact function of this structure, which is greatly varied in form, is unknown (2, 3, 4).

In modern clinical practice this structure has significance mainly for forensics because trauma to it may represent clear evidence of sexual abuse. Many studies carried out mostly by pediatricians have described its development and variations during

childhood, and introduced precise morphological terminology (5, 6).

Hymenal pathology is quite rare in everyday clinical practice, but when it is encountered by physicians it is usually in one of two most common forms: hymenal polyp or imperforate hymen. These two abnormalities in the appearance of hymen are almost exclusively manifested in childhood or just after menarche. Later in life, a preserved hymenal membrane may represent difficulty for diagnosis and the treatment of intravaginal pathological processes (7, 8).

Hymenal polyps are not uncommon in the neonatal period and early childhood. They are usually less than 5 mm and are probably due to estrogen stimulation in the fetal period. Most of them disappear by the age of 3 years. Very rarely they can persist and become larger and even polyploid. In this case, they usually cause an inflammatory reaction and sometimes bloody vaginal discharge and must be excised (8, 9).

In our patient's case, the polyp started to grow after menarche. This late-onset growth may be physiologically explained by the rising levels of estrogen at the beginning of puberty (8, 9). An anecdotal case of hymenal membrane proliferation at a rate that caused complete closure of the vaginal introitus in a pregnant woman may be additional confirmation of the proposed estrogen sensitivity of hymenal tissue (10).

In conclusion, because of the rarity of hymenal polyps in adult virgin females, we recommend their excision and histopathologic verification of the excised tissue in such cases in order to exclude the remote possibility of malignant proliferation that may originate from some other intravaginal tissue difficult to explore because of the intact hymen. The excision must be carried out with particular attention to preserving the intact hymenal ring.

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