

## Case Report

# Woman with rectal condyloma acuminatum: a case report

Ying Ye<sup>1\*</sup>, Xiang-Zhao Sun<sup>1\*</sup>, Jin-Shan Feng<sup>2</sup>

<sup>1</sup>Department of Gastroenterology, Lianjiang Hospital Affiliated to Guangdong Medical College, Lianjiang 524400, Guangdong Province, China; <sup>2</sup>Research Institute of Traditional Chinese Medicine, Guangdong Medical College, Zhanjiang 524023, Guangdong Province, China. \*Equal contributors.

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**Abstract:** Condyloma acuminatum (CA) is caused by human papilloma virus (HPV) infection, and it often occurs in the genital and perianal regions. The subtypes of HPV mainly include HPV-6, -11, -16, and -18. This case report presents a 37-year-old woman admitted to hospital because of lower abdominal pain and increased stool frequency for > 1 year. Colonoscopy found a neoplasm with a diameter ~5 mm in the rectum, ~5 cm from the anal margin. The pathological diagnosis of the excised specimen was CA. HPV DNA analysis indicated HPV-6. After asking the history closely, the patient admitted that her husband had CA, and they once had anal intercourse. The patient was discharged on the third day after the operation, and she was referred to a dermatology and venereal disease specialist for further treatment.

**Keywords:** Condyloma acuminatum, rectum, polyp, endoscopy, colorectal cancer

### Introduction

Condyloma acuminatum (CA) is caused by infection with human papillomavirus (HPV); a DNA virus with a diameter of 50-55 nm. This virus mainly infects the epithelial cells, and humans are the only host. So far, there are 70 different subtypes of HPV, which cause different types of warts. HPV-6, -11, -16 and -18 may be sexually transmitted and cause genital warts, or transmitted through contact with infected individuals. Reports of CA in the rectum, and treatment by endoscopic submucosal dissection (ESD) are rare.

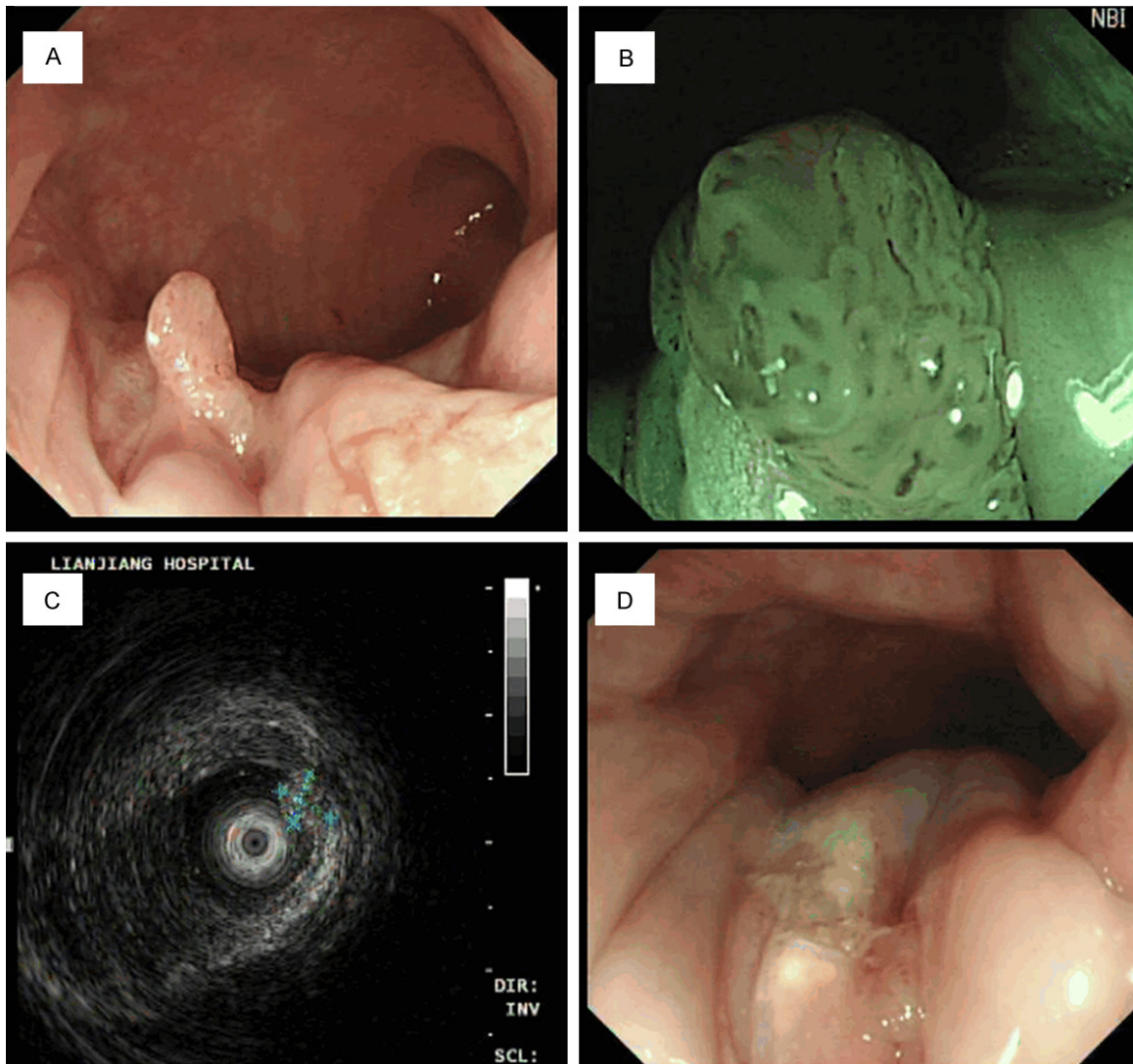
### Case report

A 37-year-old woman was admitted to our department because of lower abdominal pain and increased stool frequency for > 1 year. Colonoscopy revealed that there was a neoplasm in the rectum ~5 cm from the anal margin, which was approximately 5.0 mm × 4.0 mm (**Figure 1A, 1B**), along with edema with punctate erosions on the surface. Endoscopic ultrasonography revealed that the neoplasm originated from the mucous layer and had a uniform hyperechoic appearance (**Figure 1C**).

After injection of 1:10,000 dilution of adrenaline in saline into the base, the neoplasm was resected using electrocoagulation (**Figure 1D**). Pathological diagnosis was CA (**Figure 2**). HPV-DNA examination indicated subtype HPV-6. After close asking the patient's history, she admitted that her husband had CA, and that they once had anal intercourse. The patient was discharged on postoperative day 3, and she was referred to a dermatology and venereal disease specialist for further treatment.

### Discussion

The incidence of CA has increased in the past 50 years [1]. In China, patients infected with HPV-6 and -11 accounted for 96% of the total CA patients. In recent years, it has been found that the incidence of CA is correlated with HPV subtype, sex, geography, age, race, sexual intercourse, and number of sexual partners [2, 3]. A study of men infected with HPV found mixed-subtype infections in 33.8% of patients, single subtype infection with HPV-6 or -11 in 63.1%, and non-HPV-6 and -11 infection in only 9.2% [4]. In women, HPV infection is the most important factor in developing cervical cancer and precancerous lesions [5, 6], especially infection



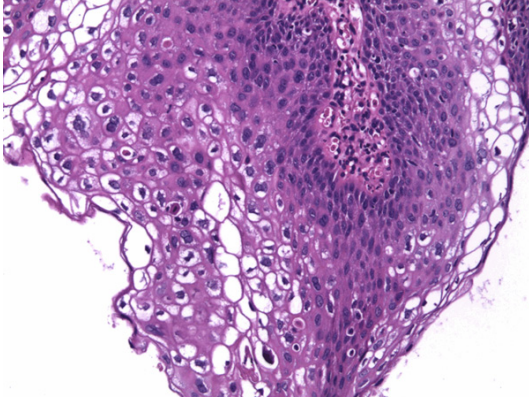
**Figure 1.** Neoplasm observed by colonoscopy. A: Neoplasm found in the rectum by colonoscopy; B: Neoplasm observed by narrow-band imaging mode of colonoscopy; C: Endoscopic ultrasonography of the neoplasm; D: The neoplasm was resected.

with HPV-16 or -18 [1, 7]. A meta-analysis of 7094 high-grade cervical lesions showed that HPV-16 was the main subtype, with a worldwide infection rate of 34-52% [8]. HPV-16 has potential to evade immune monitoring, thus, it is considered to be the main subtype to cause malignant lesions [8]. Progress of HPV infection differs according to viral subtype. Most anogenital infections with HPV-6 resolve spontaneously, as do warts, which resolve without treatment in 25% of patients.

The symptoms of rectal CA are hidden. Therefore, it seems to be a subconscious disorder and it is often ignored and treatment is

delayed. However, ~12.2% of cases of squamous cell carcinoma of the rectum are associated with rectal CA, indicating that CA is one of the risk factors for colorectal cancer. Timely and effective treatment of rectal CA can prevent colorectal cancer [9].

To the best of our knowledge, the pathogenesis of rectal CA mainly includes: (1) direct infection from anal intercourse; and (2) spread of genital or perianal warts into the rectum. However, the fact that CA may be implanted on the rectal mucosa beyond the mucocutaneous junction is often overlooked [10]. Rectal CA can be treated systemically or locally. Systemic treatment is



**Figure 2.** Pathological diagnosis of the neoplasm. Pathological analysis showed that the resected specimen comprised squamous-papilloma-like hyperplasia, and there were koilocytes in the spinous layer (hematoxylin and eosin, 40×).

the same as for genital warts. The purpose of topical treatment is to remove the wart body. At present, CA is mainly treated with medication, laser, fulguration, freezing, microwaves, and surgery to remove the wart. Due to CA developing in the rectal cavity, with a small field of view, and narrow operating space, it is difficult to remove the wart from the mucosa, and new, endoscopic surgical techniques need to be investigated further. To date, CA treated by ESD has been rarely reported. We have found only one case reported in the Japanese literature that was similar to our case. ESD is considered to be a possible treatment option in selected cases of CA [11].

In conclusion, anorectal CA found by endoscopy is difficult to distinguish from other tumors, and it occasionally presents as a complex polyp [12], and needs more attention. This case report emphasizes the importance of careful inspection of anorectal polyps before choosing to resect or leave them *in situ*. The history of the patient is important for all the clinical procedures.

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#### Disclosure of conflict of interest

None.

**Address correspondence to:** Dr. Jin-Shan Feng, Research Institute of Traditional Chinese Medicine, Guangdong Medical College, Zhanjiang 524023, Guangdong Province, China. E-mail: jinshanfeng@foxmail.com

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