

Perianal Wart Complicated with Myiasis: A Case Report

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ABSTRACT

We would like to present an uncommon case of perianal wart complicated with maggot's infestation. An 81 year old gentleman was found suffering from pruritus and per rectal bleeding. On physical examination, the patient was found to have circumferential perianal warts complicated with cutaneous myiasis by *Chrysomya bezziana* was found. Treatments given included physical removal of maggots with the help of occlusive agents followed by staged surgical excisions of perianal warts. Early diagnosis is important for prompt effective management for the disease.

Keywords: Condyloma accumulata; Myiasis; Anogenital warts; *Chrysomya bezziana*

INTRODUCTION

Condyloma accumulata is one of the manifestations of human papillomavirus infection, also known as anogenital warts. Patients usually present with bleeding, pruritus or pain, and adverse psychosocial effect due to social stigmatization [1]. We would like to report an uncommon case of perianal wart complicated with maggots' infestation with subsequent management. Our literature research showed there was only one similar case reported in the English literature for perianal warts complicated with myiasis [2].

CASE PRESENTATION

An 81 year old gentleman with past medical history of ischemic heart disease and hypertension was referred to the colorectal clinic for constipation and fresh per rectal bleeding. He also complained of mild perianal discomfort and pruritus for few months. His social history includes living with his wife in a rural village accommodation with public toilet facility in Hong Kong. He denied any sexual history of receptive anal intercourse.

On examination, the patient was noted to have poor personal hygiene and extensive circumferential bulky perianal warts. The warts were complicated with moving larvae especially at the necrotic tissue at 11'o clock of the lesion. Per rectal exam showed no anal canal involvement and the rectal mucosa was smooth.



Figure 1: Soft paraffin oil was applied on the perianal wart to suffocate the maggots.

A full colonoscopy was arranged which confirmed scattered diverticulum along colon and benign colonic polyp. The rectum was normal and there was no warty extension into the anal canal. In view of the extensive disease, a staged excision was offered to the patient. Before surgery, the patient was admitted into an isolation single bed cubicle for better nursing care to avoid stigmatization from other patients in the ward. Pest control service was recruited to assess ward environment to reduce chance of spreading maggot's infestation to other patients. Electric bug zappers were installed in the room as some of the larvae hatched and became flies. Oral antibiotics, antipruritic and analgesics were prescribed to help relieving the symptoms of the bulky perianal warts (Figure 1).

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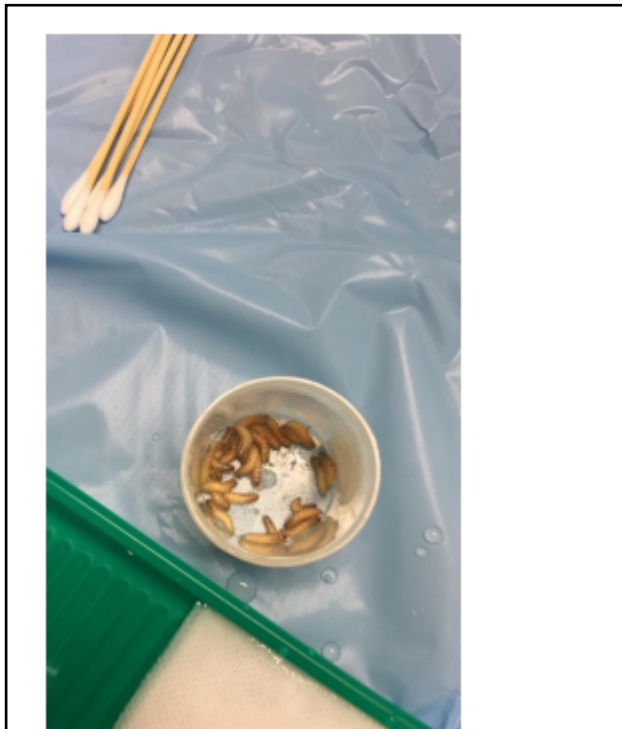


Figure 2: More than 20 maggots could be collected after one session of physical removal.

The perianal warts were cleansed with beta dine ointment and sitz bath followed by application of occlusive agent which contains a mixture of soft paraffin oil and olive oil with the aim to suffocate the maggots and allow easier physical removal from the perianal warts. Soft paraffin oil was found to be extremely useful and it was used to cover the entire lesion especially at those necrotic areas. Careful inspection and physical removal of the maggots was then attempted around one to two hours after the paraffin oil was put on. Maximum number of maggots removed in one session was found to be around 20-25. Repeated sessions of physical removal by artery forceps was arranged daily until no visible maggots were left. The maggots were sent to microbiology laboratory for identification, indicating *Chrysomya bezziana* was the corresponding species (Figure 2).



Figure 3: Staged full thickness skin excision was performed for the left side and the right side lesion showed spontaneous regression after two months upon outpatient clinic follow-up.

Surgical excision was arranged when no more maggots were found in the perianal warts. Staged full thickness skin excision

was performed for the left side in order to reduce risk of anal stenosis from full circumferential excision. Patient made an uneventful recovery and was discharged on postoperative day 7. The wound was allowed to heal by secondary intention with review at clinical follow up (Figure 3).

The remaining right side lesion showed marked regression after two months and further regressed into only a 5mm nodular lesion at 9 o'clock three months after index surgery. Another staged complete excision was arranged and the patient was discharged on the same day uneventfully.

DISCUSSION AND CONCLUSION

Myiasis, a type of parasitosis, is the infestation of host tissues by fly larvae. 37 fly species from ten families are found to be causing human myiasis [3]. A worldwide systemic review reported there are 291 human cases of infestation by *C. bezziana* which is one of the obligatory myiasis [4,5]. Typical life cycle of fly larvae begins when eggs are being laid in the wounds and they will hatch within 24 hours. The fly larvae will continue to grow within the host tissues under warm climate around 5 to 7 days until they gradually grow into pupal state and leave their hosts. These will eventually grow into mature flies which can lay eggs in a new host. The main infestation sites include the mouth, limbs, perineal/ inguinal regions and eyes, etc. Neglected open wounds were most commonly associated with myiasis. It is believed that our patient was infected when mature flies laid eggs on the perianal wart since patient often went to public toilets with poor sanitary condition.

Physical removal of maggots with the help of occlusive agents remains the standard effective management of cutaneous myiasis. Surgical debridement could be considered once all maggots were removed. As the maggots require oxygen to survive and room for mobilization, soft paraffin oil or other occlusive agent become useful to help suffocate them before their removal from their host. Main technique is to apply the occlusive agent thoroughly onto the warty growth so that the maggots would not be getting sufficient oxygen if they keep hiding deep inside. The results were promising after daily regular wound care for few days.

Different measures for infection control are essential especially during inpatient setting where as many wounds are being taken care of everyday. In our personal experience, we arranged an isolation cubicle for the patient and ensured standard and contact precaution while handling the wound care. Pest control was recruited to facilitate up-to-standard ward setting. It is essential to educate the patient and relatives the importance of good hygiene and regular follow-up. These can prevent the maggot infestation to occur again or even spread to other people in the community.

In our case, the lesion underwent a spontaneous regression after the index surgery was performed. Anogenital warts are known to have an unpredictable clinical course. They may further increase in severity after presentation or regress spontaneously. Literature research reveal approximately one-third of anogenital warts regress within the first four months [6,7]. Immunocompromised status, advanced age and high-risk HPV subtypes infection are

associated with lower rates of spontaneous regression. However, the long term remission rate remain uncertain even after the appropriate treatments.

In conclusion, we reported a rare case of perianal warts with myiasis. Careful examination helps early and accurate diagnosis for the patient. Physical removal of maggots with the help of occlusive agents followed by surgical debridement is standard and effective. The case raises the importance of good anogenital hygiene [8] and prompt prevention of this rapidly-progressing condition.

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