

Which Wart?

*Anogenital
warts: a
pictorial guide to
diagnosis and
management*

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Foreword

Anogenital warts represent the most common clinically recognised sexually transmitted disease. Each year there are more than 65,000 new cases of anogenital warts (first attack) in the UK and there is evidence that the prevalence is rising.

Traditionally, the management of anogenital warts in the UK has been seen as essentially a secondary care concern. Treatment is provided in genitourinary clinics and there is little interaction with general practitioners.

Recent years have seen the publication of evidence-based management guidelines, together with the availability of proven home-based self-administered remedies. Taken together, these two elements provide the ideal platform for greater co-operation between general practitioners and specialists in the management of the condition.

This is entirely logical and is consistent with government moves towards a more integrated approach to sexual health care provision.

Anogenital warts can be safely and successfully diagnosed and managed in primary care. Since their management requires that patients receive clear information and counselling as well as treatment that is tailored to their lifestyle, it could be said that the GP's role as the patient's advocate makes primary care an appropriate setting for their management.

The author of this publication provides an excellent opportunity for general practitioners and clinic staff to acquaint themselves with some of the diagnostic and management issues that surround anogenital warts. Of particular value is the section showing normal variants that can be mistaken for genital warts by patients and practitioners. Having such clinical pictures readily at hand to show and reassure the worried well is useful.

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Introduction

Anogenital warts (condylomata acuminata) represent a significant problem in both general practice and genitourinary medicine clinics throughout the country.

Most cases of these benign warts are caused by the human papillomavirus (HPV). The non-oncogenic genotypes 6 and 11 are found in more than 90% of cases.¹

There is uncertainty over the incubation period of HPV. Many patients may also acquire various HPV types that may not actually manifest as obvious genital warts. Some patients are concurrently infected with the 'high-risk' HPV genotypes, 16 and 18, which give rise to subclinical lesions, the majority of which clear spontaneously. However, if other as yet unknown factors prevail and types 16 or 18 persist, they can be associated with intra-epithelial neoplasia and anogenital cancer.

Anogenital warts are both unsightly and unpleasant, but it is important to emphasise to patients that they do not have any implications for future health, and can really be regarded as a cosmetic nuisance.¹ Understandably, however, most patients wish to be rid of the warts as quickly as possible.

Treatment

Most treatment aims to remove the bulk of the wart tissue. It is postulated that damaging the wart-infected area draws the infection to the attention of the immune system which recognises the virus as foreign and mounts the appropriate response. Until immune recognition occurs, there is a risk of recurrence, and even new wart development.

Previously, treatments were time consuming and required numerous clinic visits. However, in today's high-pressure climate where time is so important, patients often do not want to attend the clinic frequently. Fortunately there are therapies available (podophyllotoxin and imiquimod) that they can apply themselves in the comfort of their own home.

There is a wide range of treatment available and therapy should be tailored to the individual patient taking a number of factors into consideration, including the number and distribution of warts present, the morphology of the lesions and the patient's preference for management. Therefore, each individual patient poses a unique clinical problem, so it is neither possible nor sensible to be prescriptive about treatments. However, most specialists now agree that the days of twice-weekly clinic visits for the application of podophyllin are long gone and that this crude and potentially toxic compound should no longer be considered a treatment option given the availability of the purified active ingredient podophyllotoxin.^{2,3} Indeed, a recent case reported in the Medical Protection Society Casebook clearly highlights the dangers of prescribing podophyllin for home therapy. In this case, the general practitioner's actions were regarded as indefensible and the use of home treatment with podophyllin deemed inappropriate.⁴

Case discussions

The following cases illustrate typical examples of anogenital warts and discuss treatments that are likely to bring about the fastest clearance with the least disruption to the patient's lifestyle.

Section 1

Getting the diagnosis right

In some circumstances it can be difficult to be absolutely certain whether one is dealing with a wart or with tiny glands in the genital area that resemble a wart. On such occasions, the option of 'watchful waiting' may be valid.

There are some obvious genital variations that can be mistaken for warts by the patient or by the practitioner unfamiliar with genital examinations. One example is the Fordyce spot. These are small glands found in the vulva and on the penis. They can be very obvious in some patients, but can pose a particular problem when the patient is undertaking home therapy and there are also genuine warts present. It can be difficult for the patient to distinguish which to treat and which to leave alone.

It is important for anyone treating genital warts to be familiar with Fordyce spots, and it is also very useful to have pictures like these available in the clinic setting, to give patients added reassurance that the lumps they have just discovered are completely normal and have probably always been there.

Figure 1 Fordyce spots

These are seen on the penis near to a genuine wart that has just been treated with 90% trichloroacetic acid (TCAA).



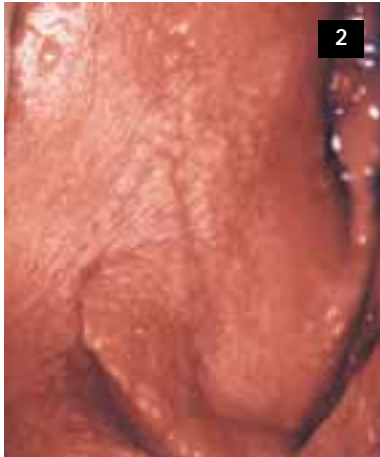


Figure 2 Fordyce spots
Seen on the labia minora.

Figure 3a Wart on frenulum

Note the set of four glands on each side of the frenulum, which are entirely normal.



Figure 3b Wart on frenulum

The same patient being treated with 90% TCAA.



Figure 4 *Coronal sulcus with pearly penile papules*

These are present on all penises, but some are more apparent than others.

Figure 5 *Sebaceous cysts*

Single or multiple sebaceous cysts are common in the genital areas of both sexes. They are quite harmless and can be left untreated. However if patients are troubled with them, or they become very large, they can be surgically excised.



Figure 6 *Lymphocele*

It is common to get a lymphocele in the preputial area. These are simply expanded lymphatic channels which occasionally fill up with lymph. They can solidify and produce cord-like swellings in the prepuce which disappear with time.



Figure 7***Molluscum contagiosum***

This viral infection produces multiple lesions which can be mistaken for genital warts. However, they usually occur in clusters and have a central punctuation. They enucleate quite easily when scraped with a suitably broken wooden swab. Here, one has been removed leaving a small bleeding point, cryotherapy is also effective.



Section 2

When to biopsy?

According to the recent European guidelines, biopsy is generally unnecessary for newly occurring multiple acuminate lesions, but it is recommended 'in atypical cases for differential diagnostic purposes or in any cases where the benign nature of a papular or macular lesion is unclear, such as conspicuous bowenoid papulosis, Bowen's disease and giant condylomas'.²

Figure 8a***Flat warts or Bowen's disease***

These are often a particular problem and the attitude should be 'when in doubt, biopsy'. Bowen's disease is a pre-malignant condition that should be recognised clinically, and a biopsy done. In this case biopsy showed Bowen's disease.



**Figure 8b Bowen's disease
post treatment**

The patient had a circumcision performed by a plastic surgeon with an excellent result.



Figure 9 VIN 2-3

Although there are some wart-like lumps present, on the vulva there are obvious pigmentation changes and excoriation, and biopsies from several sites here showed VIN 2-3.



Section 3

Example cases



Figure 10 Preputial warts

In this common presentation, all of the warts are of the soft, fleshy type on moist skin and would absorb topical preparations readily. Home therapy with podophyllotoxin would be an ideal initial therapy in this case.

Figure 11 Long-standing preputial warts

These have been present for some time owing to the patient's embarrassment about attending the clinic. There would be several options to consider here: one might be to de-bulk the area initially with cryotherapy before prescribing home therapy such as podophyllotoxin or imiquimod. Alternatively just go straight for podophyllotoxin or imiquimod and clear any stubborn warts with cryotherapy.



Figures 12a / 12b Scattered warts on the dry skin area of the penis

These would not usually respond well to podophyllotoxin and as there are only a few small warts, destructive therapy on the first visit might lead to a complete resolution. In this case, the patient was treated with 90% TCAA applied using a double-ended cotton bud. Any TCAA that trickles onto the skin should be mopped up immediately, although with practice, the liquid can be restricted neatly to the wart area, as in Figure 12b. In persistent/recurrent cases imiquimod is indicated.





Figure 13 Vulval warts

Scattered, soft, fleshy warts in the vestibular area are a common presentation of vulval warts. They often respond to home therapy with podophyllotoxin.

Figure 14 Single large genital warts

Such cases are usually best treated with cryotherapy and one or two visits are usually sufficient. Scissors excision is an option. Hyfrication or electrocautery are used by some but I dislike inhaling plumes of viral DNA.



Figure 15 Penile shaft warts

These are often dry and keratinised and do not respond well to podophyllotoxin. The preferred options might be TCAA or imiquimod 5% cream. However, if the warts are small in number, as in this case, a single application of TCAA will suffice provided there are no recurrences. The picture shows the scabbing and crusting caused by TCAA five days post application.

**Figure 16****Extensive penile warts**

These are mainly on dry keratinised skin. In this case there are far too many for TCAA or cryotherapy, which might indeed cause some stricturing. Imiquimod was the first choice in this case and the warts resolved within weeks. Prior to imiquimod such cases often required circumcision.

Figure 17 Peri-anal warts

Treatment of warts in the peri-anal area is often difficult as the patient cannot see how therapies are going. Also, cryotherapy and TCAA, and other destructive methods in this area can lead to pain and difficult hygiene. As there is often a mixture of keratinised and non-keratinised warts, the options are for possible initial de-bulking with cryotherapy of the more peripheral larger warts. This can be followed by podophyllotoxin or imiquimod. Indeed, either of the home therapies could be tried as first-line treatment, depending on the patient's preference.

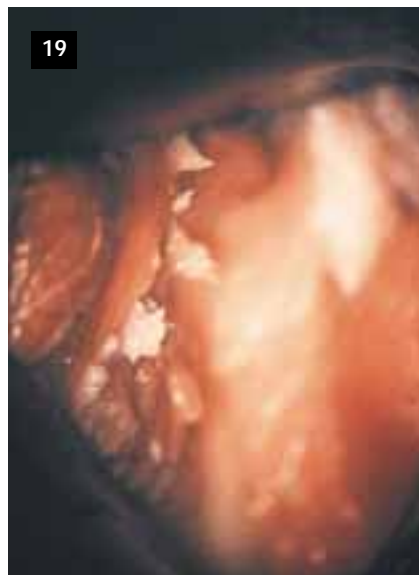
**Figure 18 Urethral warts**

Cryotherapy is the usual method of treatment and if this is extensive, patients have to be warned to keep the opposing surfaces separate or they may adhere, leading to meatal stricture. TCAA can sometimes be used safely on these too.



Figure 19 Vaginal warts

Usually, vaginal warts occur with vulval warts. It is possible that by eliminating the vulval warts an immune response is created leading to spontaneous clearance of the vaginal warts. However, vaginal warts can be treated at the same time, if necessary, using either TCAA or careful application of cryotherapy.

**Figure 20 Cervical warts**

The UK National Guidelines on Sexually Transmitted Infections⁵ indicate that cervical warts should be referred for colposcopy, with all its inherent hazards. Our policy is to treat the vulval warts aggressively, in the hope that the cervical warts might disappear immunologically, so that by the time of the colposcopy appointment the warts may have spontaneously resolved and the cervix may be colposcopically and histologically normal. Cervical warts in young women of 15–17 years pose a real dilemma as the colposcopy is inevitably abnormal, and they usually end up having significant cervical treatment for a lesion that many believe would have regressed spontaneously in due course.⁶

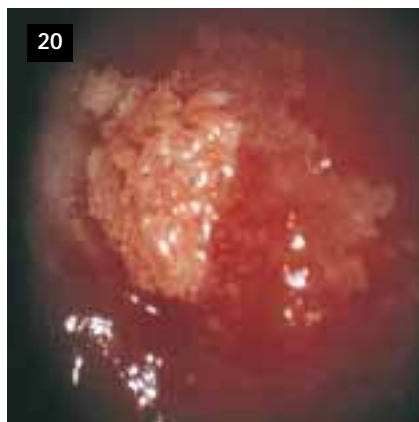




Figure 21a/21b Warts in pregnancy

These can be alarming in terms of both size and the speed of growth. Podophyllin and podophyllotoxin are potentially teratogenic. The effect of imiquimod during pregnancy is unknown. One option is to do nothing and reassure the woman that these warts often spontaneously resolve within 6-8 weeks post-delivery, at which point any remaining wart tissue can then be treated. If the patient wishes, treatment can be carried out during the pregnancy with either TCAA or cryotherapy.



Section 4

Successful treatment case studies

Figure 22a Initial presentation

Example using Warticon Cream.
This patient presented with a small cluster of warts on the coronal sulcus.



Figure 22b After 7 days

Seven days after presentation and a three day course of Warticon Cream, the wart is whitened and disintegrating. There is also some painless inflammation in the surrounding area.



Figure 22c After 14 days

The skin is completely back to normal and the wart has been cleared. Some patients get inflammation, but once the treatment is stopped this resolves completely.



Figure 23a**Initial presentation**

Example using Warticon Cream.
This patient presented with warts in the vulva.

**Figure 23b Mid-treatment**

After home treatment with Warticon Cream the warts became white and started to shrink. There was no inflammation.

Figure 23c Completed and cleared

After further treatment with Warticon Cream, there was complete resolution.



References

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Photography

All photographs were taken by Dr O'Mahony on Nikon F-601 with nikkor 105mm lens and ring flash.

