WHO SHOULD LOOK AFTER GENITAL SKIN DISEASE IN THE 21ST CENTURY?

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Introduction

Genital dermatoses describe disorders that predominantly affect the skin of male and female reproductive organs. They can broadly be classified according to whether they are venereal (sexually transmitted) or non-venereal disorders. They encompass a range of conditions, from infections such as syphilis, inflammatory disorders such as lichen sclerosus, to malignancy (Table 1). The range of diseases affecting the genitalia means these patients can present to many different health care professionals. The challenge in the UK is understanding how to best develop services to ensure prompt accurate diagnosis and management for patients with genital dermatoses. To be able to answer this there a number of factors to consider, including the epidemiology of these disorders, mode of presentation, current services available, and which lessons can be learned from the rest of the world.

Epidemiology of Genital Dermatoses

Genital dermatoses are very common. Unfortunately, due to the stigma associated with the disorders, many patients do not seek medical attention and self-treat, and therefore the incidence and prevalence are likely to be under-estimated. Delays between the onset of symptoms and definitive diagnosis are reported to be between 18 months to 10 years[1,]. A study of dermatology patients found that 20% had genital pruritis, however none spontaneously revealed the symptom until directly asked[3]. Lichen sclerosus is one of commonest conditions, with estimates ranging from 1 in 300 to 1 in 1000 patients referred to outpatient dermatology[4].

Current Services in the UK

The first point of care for many patients will either be a general practioner (GP) or walk-in sexual health clinic. From here, a proportion will be referred for specialist assessment to genito-urinary medicine (GUM), dermatology, gynaecology, urology, or general physicians if the genital disorder is associated with other systemic features. Less commonly, patients may be referred or present with genital disorders to oncology, infectious diseases physicians, HIV physicians, oral medicine or rheumatology.

Table 1. Examples of genital dermatoses

Inflammatory	**Infectious (sexually transmitted)**	**Infectious (non-sexually transmitted)**	**Malignant**	**Neurological or pain syndromes**
Balanitis	Syphilis	Boils	Vulval intra-epithelial neoplasia	Vulvodynia
Dermatitis	Chlamydia	Folliculitis	Penile intra-epithelial neoplasia	Pudendal nerve entrapment syndrome
Psoriasis	Gonorrhoea	Impetigo	Invasive squamous cell carcinoma	Dysasthesia
Lichen sclerosus	Chancroid	Tinea cruris	Extramammary Pagets disease	
Lichen planus	Granuloma inguinale	Vulvovaginal candidiasis	Mucosal melanoma	
Hidradenitis suppurativa	Trichomoniasis	Scabies		
Behcet's disease	Pubic Lice	Schistosomiasis		

In recent years there has been a rise in the public seeking help from health care professionals through media sources, particularly for conditions considered to be embarrassing. This could be through magazine columns, online forums or television programmes such as 'Embarrassing Bodies'. In addition, patients may self-diagnose or treat

on the basis of information that is now readily available on the internet. Many often seek advice from pharmacists with a view to self-treating with over the counter medications.

The British Vulval Health Survey 2015 found that 75% of women with vulval conditions surveyed received treatment from their GP, 67% from gynaecologists, and 42% from dermatologists[5]. Due to the location of symptoms on the genitals, patients often assume an infective cause. Women tend to initially self-treat for thrush[3]. Unfortunately, up to 63% of women may inadvertently cause further harm through their self-treatment practices[6]. Men may be more likely to present to community sexual health services (GUM)[7].

Issues Facing the Management of Genital Dermatoses in the UK

Currently in the UK, patients may be unable to access the expertise that they need, suffering misdiagnosis and delays. The distribution of the estimated 79 vulval services in the UK shows that areas of the country are underserved[8]. Where services are available they often exist as a result of clinician led initiative, and are frequently oversubscribed[9]. 61% of women referred to a university hospital with a diagnosis of refractory vulvodynia were found to have clinically relevant pathology on biopsy, leading to an alternative and definitive diagnosis[10]. One third of men with male genital lichen sclerosus report being symptomatic for more than two years before definitive diagnosis and treatment[7].

The training in genital dermatoses varies significantly between different medical specialties, which reflects the different approaches in diagnosing, and managing these conditions. Whilst vulval dermatoses are commonly seen by gynaecologists[5,8], there is no formal assessment of vulval dermatoses in the gynaecology-training curriculum[11]. An Advanced Skills Training Module in vulval disease was set up in 2007 for gynaecology specialist registrars, however, it has been severely undersubscribed with only 18 clinicians

completing it in the first six years, and fewer continuing to work in vulval clinics[9]. This may be due to a variety of reasons including study leave, financial constraints, and lack of exposure of senior role models to enthuse them to develop skills in this area. However, gynaecologists should be able to identify vulval dermatoses and malignancy whilst they examine women in their normal practice. Gynaecologists are experts at examining the vulva and their input is valuable, for example, Gynaecology-Oncology is a vitally important part of a specialist vulval service.

Genito-urinary medicine (GUM) specialists already treat a significant proportion of genital dermatoses. A survey of GUM clinics found that 91% of clinics manage genital dermatoses in-house[12]. Their training curriculum requires knowledge of common conditions[13]. This may not translate into real experience and knowledge as there is no minimum number of clinics trainees must attend, suggesting a lack of emphasis on these conditions. This further compounds the lack of undergraduate exposure to dermatology, where each student receives 6 days on average[14]. The lack of exposure during training may explain why GUM clinicians report a lack of confidence in managing atypical vulval pain[15], in using topical steroids, and in relevant practical techniques[16]. The National Guidelines of from British Association of Sexual Health and HIV (BASHH) advocate onward referral of certain genital dermatoses to dermatology[17,18], suggesting that the expertise is felt to lie with dermatologists. However, GUM clinicians have great expertise in the genital exam, and are well placed close to patients' homes in community sexual health departments, where patients often present. Additionally, there is keen interest in the subspecialty, with a genital dermatology special interest group in the BASHH.

Dermatology training affords skills particularly suited to the subspecialty of genital dermatology. The English dermatology curriculum requires a robust basis of knowledge in

male and female genital dermatoses, infectious diseases and HIV[19]. Dermatologists are skilled at practical procedures such as biopsies, at interpreting histopathology reports, in examining extra-genital skin, and incorporating medical photography into their daily practice. Dermatologists also commonly treat paediatric genital dermatoses, as lichen sclerosus is common in pre-pubertal females. The dermatologists with an interest in this area have also developed a British Society for the Study of Vulval Disease (BSSVD), which is multi-disciplinary. Whilst dermatologists can be keenly interested in, and have the expertise to treat genital dermatoses, the specialty's workforce statistics present a significant challenge. The ratio of consultant dermatologists to the general population is much lower than in the rest of Europe, with 1 consultant per 130,000[20]. Many consultant posts are vacant, and the small number of national training numbers (NTNs) causes a bottleneck at entry into training. In the most recent round of national recruitment 18 NTNs had 87 applicants[21]. Dermatologists have an important role to play in promoting dermatology training and educating their colleagues from other specialties, and general practice.

Genital Dermatoses Services Outside of the UK

Elsewhere, dermatology and venereology form one specialty, seeing a greater proportion of patients with genital dermatoses. This includes many European countries and some Asian countries such as Thailand. A multidisciplinary (MDT) approach is considered gold standard in the UK and elsewhere[22-24]. In the USA, where genito-urinary medicine does not exist as a defined specialty, either dermatologists or gynaecologists provide care. There have been a number of large campaigns in the USA in recent years raising awareness for women's conditions such as vulvodynia, in the hope that breaking down taboos encourages women to seek treatment[25,26].

Future Directions for Management of Genital Dermatoses

Genital dermatoses represent a common and complex group of disorders and an approved and accredited national training programme and a multi-disciplinary approach would provide streamlined, high quality services throughout the National Health Service (NHS) in the UK.

However, as outlined in the NHS Five Year Forward View, patients also have responsibility for their own health[27]. We need to help patients with this through education. They need to be able to easily access understandable evidence-based information regarding their symptoms, diagnosis and management. This is particularly important for genital dermatoses, as we already know that patients are reluctant to present to physicians. Resources need to be directed to try and encourage patients to seek medical help. Self-help groups are another crucial aspect of self-care, providing a support network for people who feel stigmatized and isolated by their disease. In the UK the British Vulval Pain Society, BSSVD, and the Association for Lichen Sclerosus and Vulval Health are available for women, and there may be a role for a similar organisation dedicated to men with genital dermatoses. Vulval conditions have a higher profile than penile conditions, perhaps in part reflecting the strength of the organisations that female patients have formed.

On a broader scale there needs to be more of a presence of these disorders in the public through health campaigns. For example, 'Healthy Skin for All' is the BAD's motto that reflects the growing success of the public health campaigns that have taught people to be more aware of their skin health, saving lives through promoting awareness of skin cancer. Sex and relationship education in schools should break down taboos, teach young people how to promote genital health, and teach the correct terminology, as 'vagina' is often used as a misnomer for 'vulva'. The public should be made aware that companies such as Femfresh who

manufacture perfumed 'intimate hygiene' products may be contributing towards vulval diseases, as in their advertising they are contributing to the culture of the genitals being a taboo subject[28], and an unrealistic expectation that genitals should be 'delicately fragranced'[29]. Men should be taught about good hygiene, as dribbling of urine contributes towards MGLSc[7] and therefore also penile cancer. Due to embarrassment, men often delay presentation of penile malignancies that require disfiguring surgeries as a result of their late stage. This is preventable[30] and a culture of self-examination must be fostered, as well as prevention of smoking and STIs[31]. Whilst the link between Human Papilloma Virus (HPV) and lichen sclerosus have been debated[32], a policy that includes boys and girls in the HPV vaccination programme is likely to prevent cases of genital squamous cell carcinoma (SCC)[33].

Inevitably these patients will always present to a variety of specialties. A separate focused curriculum leading to a qualification, such as a diploma, would ensure a high standard of training in genital dermatoses across different specialties. The new College of Dermatology[34], once it is established, could lead in the development of this qualification in conjunction with the BASHH and BSSVD. Qualified clinicians could then provide services in community GUM clinics, providing care closer to patients' homes. More complex conditions could be treated in hospital settings that facilitate a multidisciplinary approach, as research suggests that 38% of women attending a vulval clinic required consultations with two or more specialties[35]. In addition, excellent communication between different specialists is essential for continuity of care, especially when joint cross-specialty clinics are not feasible due to lack of specialist workforce, and financial constraints. Embracing the increasing use of information technology, such as a system that allows patient-held notes on smart phones, could enhance continuity of care and patient education[36].

The training for a qualification in genital dermatoses should require evidence of clinical experience through e-portfolios and work-based assessments, as well as written examination and attendance at national training courses. In addition the course should be able to adapt to the changing requirements of a clinician in the 21st century, incorporating leadership and service management skills in order to ensure the sustainability of services. Teaching clinicians how to best to engage with commissioners[37] could begin to address the patchy nature of genital dermatology provision across the UK. In addition, teaching specialists specific research skills could help advance this currently underdeveloped field. For example, standardised patient reported outcomes should be used in trials to contribute to effective and patient-centred care[38]. Lessons could be learnt from fields such as Intensive Care, where research on rare conditions is conducted through multicenter trials and multicenter registries, often on an international scale. The organisations overseeing the qualification would have a vital role in supporting and coordinating research. In addition, providing a similar qualification for nurse practitioners would diversify teams. Nurse practitioners could take on some of the clinical workload, teach patients how to self-manage their conditions, and allow clinicians the time for leadership, research, and education of other healthcare professionals.

In addition to clinicians and nurses, psychologists have a role to play in the treatment of genital dermatoses. Increased importance should be placed upon their inclusion in the multidisciplinary team (MDT). Currently there is little psychological support available to patients despite the impact the diseases can have on quality of life (QOL), mainly due to financial constraints. The psychological impact of dermatological conditions is often underappreciated, despite being similar to other chronic diseases such as asthma and arthritis[39] however the unique position of these diseases on the genitals further affects morbidity. Research into the significant psychological morbidity in men is currently limited[31].

However, 1 in 5 women with vulval disease have either self-harmed or contemplated suicide as a result of their condition[5]. Only 36% and 26% of vulval clinics audited reported having access to psychosexual counseling and psychotherapy respectively[9]. The situation is similar for physiotherapy services, which are particularly important for treatment of vulvodynia. Patients often have to privately fund these services themselves. These examples are common despite the NHS Constitution, which states that mental and physical health will be treated in equal regard, regardless of the individual's ability to pay[40]. This also brings into debate which aspects of these conditions will be funded long-term on the NHS and which will be forced to become private services only.

Conclusion

Genital dermatology has benefited from an increase in its profile over the past few decades, however, in the UK the patchy provision of care allows some patients to access excellent care, whilst others suffer in silence or pay out of pocket. Greater public education will break down taboos, encourage patients to present to physicians, and self-care where appropriate. The physicians treating genital dermatoses in the 21st century should hold a robust qualification incorporating clinical experience to develop real expertise, overseen by a collaboration of experts from different specialties. This will ensure that genital dermatoses are always treated with the most appropriate care, whether by a specialist, nurse practitioner, psychologist, or by patient self-management.

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