#### An International Journal for Community Skin Health

# **Community Dermatology**



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## **COMMUNITY DERMATOLOGY: THE WAY FORWARD**

Paul K Buxton MBBChir FRCPEd Editor & Chairman Community Dermatology British Association of Dermatologists 4 Fitzroy Square London W1TSHQ United Kingdom

hope you enjoy reading this Journal, which has now been published for 4 years. The contributors, Editorial Board and Publishers enjoy producing it. But the real reason for the Journal is not for enjoyment but a shared commitment to improving health for all those whose medical care is primarily dependent on the services provided by local health cen-

tres. This applies to least 80% of the world's population. For the health officers at these centres, we aim to provide information on the recognition of skin disease, particularly infectious diseases that affect the skin, and guidelines for investigation and treatment. We also aim to show how individuals can help themselves, using resources they already have.\*

#### **Education**

The object of the Journal is to give the best available information in a form that is easily understood. We have been for-



The first group of postgraduate residents at the Black Lion Hospital, Addis Ababa - with Professor Peter Friedman and Dr Paul Buxton

Photo: Paul Buxton

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tunate in having contributions of a very high standard from well-qualified authors who have understood this.

The Journal has had papers on the recognition of leprosy, AIDS, viral infections, the management of eczema, fungal infections and lymphoedema. Equally important are the practical instructions for patients with oedema of the legs and eczema. The clear and informative leaflet, 'How To Look After Big Foot', from the International Skin Care Nursing Group, has been sent out with the Journal. Recent articles on living with vitiligo aim to help patients to come to terms with the condition. There was also a review of the causes and treatment of vitiligo.

\* 'Community-based health care is all about the realisation that you can do something about your own health'.

Professor Miriam K Were, Chair, AMREF (African Medical and Research Federation).

#### **Editorial**



Waiting for treatment

Photo: Paul Buxton

The Journal Extracts have enabled readers to be aware of papers published in main-line journals.

A regular feature has been a clinical quiz to test knowledge of specific conditions.

Working with organisations that already have a wide network of contacts is one of the most useful ways of distributing the Journal. This co-operation could be developed to include the provision of education, medications and dressings. For example, APOC (The African Programme for Onchocerciasis Control) and ILEP (International Federation of Anti-Leprosy Associations) are dealing with similar problems and have a network of supporting offices.

#### **Communication**

One important function of the Journal is to be a means of communication — a two way process. We have, therefore, carried research reports from the Regional Dermatology Training Centre at Moshi, Tanzania, as well as papers describing the management and treatment of skin conditions in developing countries. This includes advocacy for the cause of community dermatology. Although it is not possible to cover all meetings and training courses, we aim to bring as many as possible to the attention of readers.

#### The Future: A Wider Vision

The contribution to the relief of suffering by this Journal is small and insignificant in terms of the masses who endure the misery of chronic diseases – but very worthwhile for any individual whose gross leg swelling is relieved by massage and emollients or for whom a correct diagnosis of leprosy has been made. How can we translate these individual benefits to a whole country? It is up to governments to implement health care programmes, but we could take action at a level between this and the individual patient - by devel-

oping the services provided by individual health centres. The editors and writers are mainly drawn from places where medications, dressings and diagnostic tests are freely available, including larger centres in developing countries. It is relatively easy to distribute copies of the Journal to them and training is often available.

The challenge is to bring these benefits to rural health centres, many of which are very isolated,

with no postal service or telephone. These are also the centres with minimal equipment and supplies, but with the largest number of people who need help. When visiting health centres in Ethiopia last year, the need for support and basic supplies was very clear. There may also be a lack of equipment and supplies of medicines and dressings. Health workers confronted with medical conditions often find that they are unable to help, just because they do not know what to do and lack basic medications.

Support from colleagues in countries with more facilities is invaluable. Visits by medical specialists, who carry out clinics and provide training of the health officers, have been made successfully in a number of countries. For example, dermatology 'camps' have been carried out in Nepal, with a dermatologist and health workers setting up a clinic for a few days in a rural community. This not only enables large numbers of patients to be seen but also provides an opportunity for training.

One visit helps the immediate situation but, to achieve longer-term benefit, training courses in regional centres for health officers, adequate supplies of basic medications and information on diagnosis and treatment are all needed. If many health

centres scattered across the country could be supported and enabled to improve their services, this would be a significant contribution to the health of the population. One health centre, properly equipped, where the community health officer is given the training he or she needs will have an impact on the local community. Multiply this a hundred times and the whole district benefits. On a larger scale, improving national facilities and training of health officers would make a considerable difference to the health of rural communities throughout all of the developing countries.

Nurses and doctors from countries with better facilities could achieve this by:

- 1. Setting up training at the nearest regional hospital.
- 2. Providing funds for the transport of health workers.
- 3. Ensuring the distribution of community health journals and other material to each health centre.
- 4. Enabling the health workers to educate the local population in essential health care particularly in relation to the control of infection and the use of medication available from local plants.
- 5. Supplying basic medication and dressings. In common with other visitors to rural health centres, I often find that the medicine cupboard is spotlessly clean but lacking any useful medication. Yet, for a few pence, there could be potassium permanganate crystals, for making up an antiseptic solution, and emulsifying ointment for treating a wide range of eczematous skin conditions. The addition of ivermectin enables a wide range of parasitic conditions to be treated as well.

Co-operation is essential – with other organisations and the regional hospitals and teaching centres.

It is possible that a scheme could be set up to support health centres, bringing medicines, information and proper training where it is most needed. This would enable individuals to sponsor a specific health centre. Initially, there would need to be discussions with the government department concerned and visits to health



A ward in a Regional Hospital in Ethiopia

Photo: Paul Buxton

centres arranged. Once initial contact was made, supplies of medication and suitable training courses for the health officers could be arranged. Those sponsoring a health centre would be given details of the needs and how they were being met. Your opinions on this can be sent to the Editor.

Health centres can also be used to carry out useful epidemiological surveys –

as the incidence of many conditions is unknown. Disabling conditions, like podoconiosis,\* need field studies to find the cause and treatment, and health centres are the ideal centres for this.

They are also essential in the control of specific diseases such as leprosy, where the reported prevalence depends on identification of affected individuals by health officers.

In many parts of the world, conditions such as leishmaniasis and onchocerciasis are common and eradication programmes are being implemented.

It is a matter of realising that small is beautiful – give support to individual health workers in small communities – but also have large vision for what can be done on a national and international scale.

\* Podoconiosis – non-filarial endemic elephantiasis of the lower legs

### **STIGMA IN DERMATOLOGY**

Elizabeth Guinness MBBCh MRCPsych MD Child Psychiatrist 1 Cherchefelle Reigate Surrey RH2 7RN United Kingdom

Our request for an article on 'Stigma' is inspired by - and includes content from the article - 'Stigma', written by Dr Elizabeth Guinness, as the Editorial for Developing Mental Health (Issue No. 6) 2007; 5:1-2

🕇 tigma is as old as mankind. Fear of death, disease and disability is part of stigma - but only part. Beliefs surrounding the illness are powerful factors. For instance, battle wounds may be dangerous and disabling but they are honourable wounds. Even torture has been found to be less harmful psychologically than rape, if it is understood as endured for the sake of loved ones. Whereas leprosy, mental illness, epilepsy and, in modern times, AIDS are seen as shameful. They are 'the patient's fault', or worse still, 'due to evil spirits'. Stigma often leads to outright cruelty. It is part of the burden of illness. It isolates a person from his community, depletes his determination and resilience, separates him from his spiritual and emotional supports and often denies him a livelihood.

Stigma must be tackled by the physician as part of healing the 'whole man'. This is recognised in many religions – for example, Christ demonstrated this in his healing ministry. Once a woman who had had a vaginal haemorrhage for 12 years wanted to touch Christ's garments secretly in the crowd, without having to declare herself. But he called out, 'Who touched me?' and made her stand out in front of the crowd

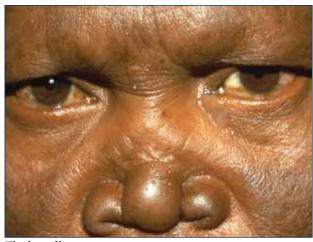
(Luke 8 v.43-48). This was not to shame her. He knew that she needed to be reinstated into her community. Simply healing the haemorrhage would not have removed the stigma. She had been regarded as ceremonially unclean and, therefore, excluded from much of the religious and cultural life of the community. People needed to know she was healed.

#### **Results of Stigma**

Fear of the unknown and fear of violence create

stigma. At worst, this can result in sufferers being hidden away or locked up. This is especially so for mental illness. A report, 'Breaking the Chains', from a University Department of Psychiatry in Pakistan illustrates this (see Issue No. 6 of the Developing Mental Health Journal). A team of psychiatrists and nurses visited a healers' shrine for the mentally ill. They had heard that patients were chained to trees in appalling conditions, sometimes for years. They negotiated with tact and patience - to be allowed to observe the patients and talk to them. Using a low key, culturally acceptable approach they made medical diagnoses and then administered medication. They also engaged with the family attendants to explain the need for after-care, on-going medication, rehabilitation, etc. Many patients walked away recovered within a month!

Sufferers from chronic skin disease have often been treated as unclean and a danger to others - regardless of the facts. The fear of contagion is powerful in creating



The face of leprosy

Photo: Margreet Hogeweg

stigma. For instance, in India vitiligo is mistaken for leprosy - so women lose all marriage prospects and become outcasts. All quite needlessly, as vitiligo is simply loss of skin colour and neither infectious nor dangerous. But skin conditions are very public. Even if there is no fear, they inspire morbid fascination or disgust in the onlooker, to the shame and embarrassment of the sufferer. Teasing, bullying, even social ostracism\* or, worse still, rejection by family, are all part of stigma. Inevitably, there is a psychological impact as well.

#### **Psychological Impact**

There are two perspectives on stigma – first, the internal thoughts of the sufferer, and second, attitudes and beliefs of other people. Stigma can get a person down and make him depressed or phobic (fearful of facing certain situations). He begins to believe all the distorted beliefs. He longs to hide in shame. Whereas, if he can learn to stand outside his disease, rise above it, not let it bother him, then others will

\* To ostracise - to exclude (a person) from a society, favour, common privileges, etc.; to refuse to associate with... (Oxford English Dictionary)

## **Stigma in Dermatology**

notice it much less. This requires a positive self-image, lots of self confidence as well as determination and courage. However, a person's self confidence is to some extent a reflection of how other people regard him, his family most of all. Thus, if his family shuns him because of his disability, he may be trapped by stigma.

An eloquent testimony of this was given in the previous issue of this Journal (No.5) 'Living with Vitilgo'. The writer describes the onset in her teens, leading to a crisis in self identity, a feeling of being ugly and sexually unattractive, a fear that she should never marry and have children because it was genetic. Fortunately, she was blessed with several important protective factors. She had a loving, supportive family who valued and believed in her. This boosted her self image. She had the latest treatment which minimised the progress of the chronic disorder. She had opportunity to wear cosmetics and fashionable clothes to hide the disfigurement. Nevertheless, she became depressed and needed treatment, both with antidepressants and psychotherapy. However, it was by embracing her disorder rather than hiding it that she won the psychological struggle. She joined the Vitiligo Society. She found out all there was to know about the disorder. Then she became chairman of a research review group, wrote articles, gave lectures. She not only 'dispelled ignorance' but she became an expert and positively promoted research! This helped to defeat her own internal stigma. Even though her vitiligo was steadily increasing, she had mastered its adverse impact on her life. Her final comment was: 'Vitiligo, far from ruining my life has enriched it. It has allowed me to meet many interesting people and to embark upon many fascinating journeys of discovery'.

#### **Rehabilitation into the Community**

Modern medicine gives us powerful tools for removing stigma in terms of effective treatment and prevention. The patient and his family should be fully informed of his prognosis. For example, if it is infectious, how long must he be isolated? What must be done to make him safe to live with? Will he be able to earn his living?

The management of leprosy, for instance, is very different nowadays, with effective drugs. The patient need no longer be isolated for life. Ignorance breeds fear; proper information gives hope. However, medical management is not enough. Rehabilitation means helping the patient regain their lost position in society. The dermatology physician cannot do all of this alone. He should facilitate training for dermatology nurses as described in the previous Issue of the Journal.

#### 1. Support of the family

The family may need to be re-engaged with the patient if he has become alienated by stigma. A lone individual without any family will indeed be at risk. In most parts of the world, the family is the only social support system available. The nurse should learn something of the patient's background. What is his position in his family? Is he a valued, much loved member whose illness creates a sense of great loss for the family? Or, is he rather dependent, not contributing much? Are there bad relationships so that they want to get rid of him? The nurse must negotiate on the patient's behalf. The family's goodwill and encouragement is vital.

## **2.** Learning to manage the disorder Both patient and family need to be taugl

Both patient and family need to be taught something about the disorder – its cause

and effects, whether it can be cured or become chronic. Treatment for skin conditions is often elaborate, time consuming and uncomfortable. The nurse needs to judge who in the family is the best person to help. Careful instructions must be given on procedure, also how long, how often. Follow-up is vital. Side effects may be dangerous, e.g., from steroids. Medications sold on market stalls may be false or toxic. The nurse must ask about his occupation, job and lifestyle. He may need to adjust his life. What makes the condition worse, what improves it?

#### 3. Psycho-education

If rehabilitation means helping the patient regain his lost position in society, then combating stigma, both internal and external, is vital. Has the patient stopped going out socially? What is the reason? Does he want to hide or is he shunned or mocked by others? Help him plan a step-by-step approach to overcome his fear. Then, send a family member with him to help confront and inform where necessary. Every effort must be made to help him return to work as this will restore his dignity and self respect.

To what extent can the patient learn to rise above the disease and not let it bother him? Talking to other sufferers is a good way to start. The dermatology nurse is in the best position to set up a Self Help Group as she will know of other sufferers. She should facilitate discussions of mutual problems, help plan solutions and find resources. Learning about his skin disorder and then teaching other sufferers seems to be a good way of confronting fear and 'embracing' the disorder.

### THE THIRD COMMANDMENT: STOP SMOKING

Terence J Ryan DM FRCP Emeritus Professor of Dermatology Department of Dermatology Oxford United Kingdom

E-mail: oxfordwound@aol.com

In choosing commandments which have skin care relevance, at no cost, I selected 'Oil It' as number one and 'Keep Moving', as number two, using sustainable and accessible methods that are not a drain on resources.

The Third Commandment is 'Stop Smoking'. This is chosen because it saves money and is of undoubted benefit to health. Less well known is that it also benefits the skin.

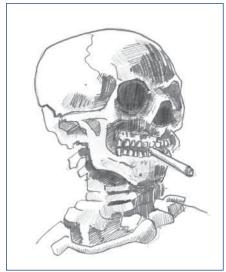
Skin function includes display and, through display, communication. It is the 'look good, feel good factor', the smooth unwrinkled skin and the white, toothy, broad smile of the healthy and happy! Those without it may be amongst the disfigured who suffer from stigma, which, as with leprosy, for example, may make those affected unwelcome in society. The

skin also uses its sweating and control of its blood supply to thermoregulate. In a world showing climate change, this is an increasingly important function. The skin is a protective and sensory sleeve which when scratched, abraded or penetrated is remarkably resilient and pliable.

#### **Smoking**

What does smoking do to these functions? Long-term smokers are recognisable as having blackened teeth and more wrinkled skin than can be accounted for by age and sun exposure alone. Besides stinking of smoke and littering ash on clothing

## **Stop Smoking**



Drawing: David de Berker - after Vincent van Gogh

and furniture, it is a habit with a heightened risk of destruction by fire.

Several of the vascular reflexes of the skin are blocked by nicotine. There is a reflex increase in blood supply whenever compressed, but this is lost in the smoker and any wounds heal less effectively.

#### **Smoking and Disease**

Diseases of the skin made worse by smoking include acne. Some young men are genetically prone to gangrene from peripheral vascular disease due to smoking, which was first described by Buerger.

It is the elastic fibres and cross-linking of collagen that degenerate in the smoker. This contributes to the loss of a protective response to skin deformation, which tears more easily. It has been proposed that this is more likely in vitamin A deficient persons. In countries such as Bangladesh and India, it is those who can least afford good nutrition who smoke the most.

Of course, much of this matters little if you die early from lung cancer, coronary thrombosis or struggle to focus on any enjoyment in life when disabled by chronic bronchitis and emphysema. Macular degeneration and consequent blindness is also an association, but it too may be of less consequence if you die early.

King James 1 of England and V1 of Scotland wrote, in 1604, 'Smoking is a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black, stinking fume, thereof, resembling the horrible Stygian smoke of the pit of the bottomless...'

In today's high technology evidence-based approach, such opinion may have less credibility than the probability, for example, that the killer disease, tuberculosis, is much helped by the turning off of lung macrophage production of the cytokine killer of bacteria, TNF- $\alpha$ .

#### **Smoking and Cosmetic Surgery**

What is astonishing is the thriving nature of the market for cosmetic surgery - to repair changes that can be blamed on smoking.

Oddly, it is not the scientific journals that paint the grimmest picture, nor the dermatologist who makes a living from cosmetic surgery. The best descriptions are in Women's journals, which state, 'Stop smoking now if you do not want, prematurely, 'crows' feet' at the edge of the eye or deep, prominent wrinkles, up to two inches long that extend upward and typically downward over the upper part of the cheeks, that look as though cut into the skin with a knife - or the lip - wrinkling that looks as though you are wearing illfitting false teeth - or if you had a white skin, to become yellow-grey, and, if you are a man, for your neck skin to become more severely cobblestoned.'

It is a sad fact that it is the very young who take up the habit, for no reason other than to be seen to be more grown-up. One fact that should be shouted from every roof top is that it is never too late to stop and, thus, to benefit. The displacement of oxygen by carbon monoxide is reversed within a few hours of the last and, hopefully, 'final' smoke. Hopefully, 'final' because you have stopped smoking and not because you are prematurely dead. Do you want to be classified as socially disadvantaged? Then, continue to smoke but don't expect much help when you need it.

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## The Role of the Pharmacist in the Community

## THE ROLE OF THE PHARMACIST IN THE COMMUNITY

#### Robin Marks MBBS MPH FRACP FACD

Emeritus Professor of Dermatology PO Box 232, East Melbourne Victoria 8002 Australia

Email: robin.marks02@gmail.com

#### Introduction

The use of a particular health care practitioner for advice and management by a person who is affected by skin disease depends on:

- 1. The availability of health care.
- 2. The cost.
- 3. The particular disease and the particular circumstances in which the person lives.

This can vary - from wealthy, educated people in developed countries seeking advice from specialist dermatologists - to people living in very poor rural communities in developing countries, seeking advice that they can afford from anyone who professes an interest in skin diseases and their management.

In many countries, pharmacists are amongst the most commonly used sources of advice, within the community. With increasing cost of provision of medical care, governments are increasingly relying on and promoting other sources of health care advice. These include the pharmacy, as a deliberate policy of both reducing the cost of care and making it more accessible to those in need.

This article covers possibilities for the role of the pharmacist in providing dermatological advice and care in the community.

#### What is a Pharmacist?

The standard dictionary definition of a pharmacist is, 'a person who is licensed to fill out prescriptions'. However, it is clear that they are capable of doing more than that.

The pharmacist, in most countries, is a person who has been trained and received qualifications from a recognised training institution, such as a university or other training college. The subjects included in the training at most of these institutions include:

1. Understanding pharmacology and pharmaceutical products.

- 2. Compounding pharmaceutical products.
- 3. The use of these products in health and disease.
- 4. The side effects or interactions between various pharmacological products.

Pharmacy training also includes management of diseases, which in some cases includes making a diagnosis and then prescribing a treatment.

In other words, pharmacy training, depending on the institution and the interest of the students and teachers, can include almost all of the traditional medical training.

#### What do Pharmacies Contain?

The pharmaceutical products, or medications that pharmacies contain, vary enormously between countries and even between pharmacies within the same country. The medications held in the pharmacy can be classified according to whether or not the pharmacist can provide them to the community with or without a prescription, depending on the laws in their country.

It has become increasingly common for governments to permit pharmacies to hold many effective medications which the pharmacist can dispense, without the need of a prescription from a medical practitioner. These products are called over-the-counter products. If a product is available from a pharmacist, in the absence of a diagnosis or prescription from a medical practitioner, it requires that the person purchasing it knows the diagnosis and the correct treatment.

## Who Makes the Diagnosis in the Pharmacy?

As a substantial proportion of medications for diseases affecting the skin are available over-the-counter, there has been increasing attention paid to the possibility of teaching pharmacists diagnosis and management of skin conditions, with the products that they have available in their pharmacies.

A recent study in Australia showed, however, that advice about skin conditions and recommendation for medication was frequently being given, not by the trained pharmacist but by a pharmacy assistant, in many cases a relatively young person



An Indian Dispensary or 'Chemist Shop' Photo: Shyam Verma

whose main training was in handling the cash register. It is clear that if a person is going to seek advice from a pharmacist about a condition affecting their skin, they need to ensure that they are seen by the person in that pharmacy who is qualified to give it.

## Can Pharmacists Make a Diagnosis?

A study was undertaken with a group of pharmacists in Australia to determine their skill in diagnosis, as well as in treatment of skin conditions, once a diagnosis had been made. The data showed that there are limitations to the diagnostic skill of pharmacists. However, a simple education programme, including a book on common skin conditions, demonstrated that they are able to improve their skill in diagnosis with a reasonable education programme.

The research also showed that in Australia, pharmacists' knowledge of what medication to dispense was good, once a diagnosis had been achieved. In other words, the area of need in pharmacy practice, if pharmacists are going to be managing common skin conditions, is in making the correct diagnosis first. The training of pharmacists should also concentrate on diagnosing what conditions, e.g., skin cancer, should *not* be managed in a pharmacy.

## What is the Role of the Pharmacist in the Community?

Having taken into account all of the points considered above, it is clear that virtually every pharmacy in the world has effective and simple therapeutic products that are able to be dispensed, without a prescription, and which are suitable for many common skin conditions.

These conditions include many of the simple infections such as tinea, warts,

## The Role of the Pharmacist in the Community

herpes simplex, and superficial bacterial infections. When there is mild eczema (dermatitis), the pharmacist can often prescribe low potency topical steroids. They also have products which are used as preventive measures, such as simple emollients for reduction in severity or prevention of a flare-up of eczema.

Topical preparations for many of the common infestations, such as scabies and

lice, are also available in the pharmacy, as are topical preparations for acne. In many countries, pharmacists have oral antibiotics available for dispensing overthe-counter.

If pharmacists are well trained in the diagnosis of common skin conditions, particularly those conditions that can be treated in the pharmacy and those that cannot, then they certainly have a role in helping people with these conditions. But the most important underlying principle in supporting the role of the pharmacist, in managing people with common skin conditions in the community, is an agreement that they must be well trained and that they must realise their limitations in the use of the products that they have available in their pharmacy.

## **URTICARIA: COMMUNITY MANAGEMENT**

Vineet Kaur MBBS DNBE (Derm & Ven) DipGUM (UK)
Consultant Dermatologist and
Venereologist
The Skin Institute
Mahmoorganj
Varanasi 221005
India

rticaria (weals, hives or nettle rash) is one of the commonly encountered dermatological problems in day-to-day practice. It occurs in a large majority of the population at some point in their life time1 and is usually short-lived. Typically, it appears as multiple, erythematous well-defined areas of oedema which can vary hugely in shape, size and patterns over time. Usually the lesions are itchy and most do not last beyond 24 hours. When the oedema is deeper in the subcutis, it is called angioedema. Ingestion of non-steroidal antiinflammatory drugs is one of the most common causes of drug-induced urticaria.2

Urticaria can be effectively treated at the primary health care level by basic health care workers, provided they have an adequate understanding of the natural course of the disease and can explain this to the patient.

Most cases (50%) clear in 6 months to a year, but 25% may still have lesions 20 years later. Although, apart from angioedema, urticaria is not a life threatening condition, sometimes the intense itching, disfigurement and the sheer unpredictability of the condition can lead to a very poor quality of life. It is, therefore, important that there is a clear understanding of the management of this condition.

#### **Types of Urticaria**

**1. Ordinary urticarias** are classified as *acute* or *chronic*. If the rash is of a short duration, i.e., remits in

less than 6 weeks, it is termed acute. These cases are usually due to drugs or infections. When the urticaria lasts longer, it is termed chronic.

- 2. Physical urticarias are a small subset where urticaria is produced as a reaction to an external, physical trigger (stimulus):<sup>3</sup>
  - *Dermographism* hives are induced by trauma such as by stroking or scratching and even pressure. It is an exaggerated 'triple response'.\*
  - *Cholinergic urticaria* –here the clinical picture is a micropapular, monomorphic rash induced by sweating, usually due to raised body temperature.
  - *Cold urticaria* exposure to cold water or air causes this type of urticaria.
  - Aquagenic urticaria a micropapular rash is induced by contact with water of any temperature.
  - *Pressure urticaria* prolonged pressure, e.g., due to elasticated waist bands or from holding a steering wheel whilst driving, can produce an urticaria which is more painful than itchy. It is considered a delayed dermographism.
  - *Solar urticaria* urticaria develops within minutes of exposure to sunlight and disappears on sun avoidance.
- **3. Urticarial vasculitis** urticarial lesions last longer than 24 hours and resolve leaving bruise-like marks.

#### **Aetiology**

1. Idiopathic

In many cases of urticaria no cause can be found (*idiopathic* urticaria).



Facial angioedema

Photo: Chris Lovell

Identifiable causes may be considered as immunological and non-immunological:

#### 2. Immunological

Most immunological causes are a Type I hypersensitivity reaction due to inhaled or ingested allergens, infection, infestation or drugs. (The allergen causes cross-linking of pre-formed specific IgE on the surface of cutaneous mast cells and basophils, inducing the cells to degranulate. Degranulation releases various mediators including histamine, which increases the permeability of blood vessel walls resulting in dermal oedema).

A small minority of cases may be of immune complex type, due to immune complexes being deposited in small blood vessels (urticarial vasculitis and urticarial reactions to drugs or blood products).

#### 3. Non-immunological

Some drugs (e.g., codeine and morphine) may directly cause degranulation of mast cells and basophils releasing histamine - or work via other immunological pathways.

\* Triple response - redness, heat and swelling - vascular changes in the skin in response to mechanical injury

## **Urticaria: Community Management**

Box 1: Some distinguishing features of the two main types of urticaria

| Ordinary Urticaria   | Urticarial Vasculitis   |
|--|---|
| <ul> <li>Individual lesions last only a few hours</li> <li>Lesions are itchy and do not leave a bruise-like discolouration</li> <li>Not associated with malaise and fever</li> </ul> | <ul> <li>Individual lesions persist beyond 24 hours</li> <li>Lesions are painful and leave<br/>behind hyperpigmentation</li> <li>Usually associated with systemic<br/>symptoms</li> </ul> |

#### **Diagnosis**

The diagnosis of urticaria is mainly clinical and a detailed history is important - to establish, if possible, the type of urticaria and to identify any obvious trigger (stimulating) factor such as infection or drugs.4 Care should be taken to clarify the duration of individual lesions, as weals due to urticaria usually last less than 24 hours, whereas individual weals lasting longer than this are suggestive of urticarial vasculitis. In practice, patients often confuse subsequent crops of hives as lesions lasting longer than 24 hours, so questioning may need to be repeated to check this detail. Urticarial lesions may be painful and also resolve, leaving bruise-like marks (often difficult to appreciate in very dark skins; see Box 1).

Examination of the skin may reveal weals and long, slightly urticated lines where the patient has scratched himself (dermographism). Equally, due to the transient nature of weals, patients may not have anything to be seen on the skin when they are examined. In this situation, if the patient has not taken any antihistamines recently, it is worth trying to demonstrate dermographism by taking a small stick and gently but firmly moving it across the subject's back for a few centimetres. After a few minutes a palpable, erythematous line may appear.

A simple, cold contact stimulation test can be done, if the history is suggestive of cold urticaria. For this, an ice cube is placed in a small, thin, plastic bag and taped to the flexor surface of the patient's forearm for a few minutes. The skin adjacent to the ice cube is then examined at intervals of every few minutes for the development of a weal.

Angioedema presents as swelling of the lip and/or tongue, difficulty swallowing saliva, wheezing and/or collapse, and may be life-threatening. Most urticaria patients do not have systemic symptoms, but IgE-mediated Type I hypersensitivity reaction and some physical urticarias may occasionally progress to anaphylaxis.

Blood tests and specific investigations, such as prick tests, are not routinely recommended in cases of urticaria. A full blood count may be helpful, as the finding of an eosinophilia should prompt a search for parasitic infection.

#### Management

The principles of management of the two main varieties of urticaria vary slightly, although antihistamines are the mainstay of treatment in both.

#### 1. Patient Counselling

- Make no promises
- Explain natural history
- Usually no underlying condition can be found
- Not fatal / malignant / contagious
- Explain importance of compliance drugs not to be taken on 'as required' basis
- Explain the role of stress, drug intake (non steroidal anti-inflammatory drugs).

If the history is suggestive of a drug cause, the drug should be immediately discontinued and replaced by another with a similar pharmacological effect but different structure.

#### 2. Drugs

#### $Antihistamines \ (H_1 \ antagonists)$

#### • Non-sedating antihistamines:

If available, these drugs are the mainstay of management of urticarias. The aim of treatment is to reduce itching, and the number and size of the weals to near or complete clearance levels. To achieve this, it is important to take the drug regularly, in the correct dose and for periods as long as a few months at a time. The timing of the drug should be related to the drug's half life and to the time of day when the rash is usually worse.

The best drugs are cetrizine and loratidine. Both are prescribed in a dose of 10mg daily. However, doses

can be increased in some cases to achieve complete control. Generally, these drugs do not cause drowsiness but there can be individual variations. Patients should be warned to be careful while driving and to avoid the use of alcohol at the same time.

Newer antihistamines such as fexofenadine (180mg od) and desloratidine (5mg od) have fewer side effects and may be used.

#### • Sedating antihistamines:

Sometimes, the newer non-sedating antihistamines might not completely control the hives. In such situations or when a non-sedating  $H_1$  antagonist is not available locally, classical antihistamines, such as chlorpheniramine maleate (4mg qid), hydroxyzine hydrochloride (25mg tid) and diphenhydramine hydrochloride (25mg tid), are useful. Doxepin (10-50mg tid), though primarily an antidepressant, is a powerful antihistamine and has been successfully used in the control of chronic urticaria, although sedation may limit its use during the day.

#### H<sub>2</sub> antagonists

If control is not achieved by the above measures, it is worth considering adding an  $\rm H_2$  receptor antagonist. The most commonly used are cimetidine (400 - 800mg bd), ranitidine (150 - 300mg bd) and famotidine (20 - 40mg bd).  $\rm H_2$  receptor antagonists can help the dyspepsia which may accompany severe urticaria.

#### Systemic steroids

These should not be used routinely in the treatment of urticaria. However, they may become necessary in very resistant cases and urticarial vasculitis. Severe, acute exacerbations of chronic urticaria may also warrant short courses of steroids. A starting dose of about 20mg is usually enough and has to be continued with slow reduction in dose over



Urticarial vasculitis

Photo: Chris Lovell

## **Urticaria: Community Management**

2-4 weeks for urticarial vasculitis. With dietary discretion (salt restriction and correct calorie intake and potassiumrich food like bananas, tomatoes, coconut water, depending upon availability) these are usually well tolerated. In cases of acute angiodema and urticarial vasculitis, steroids form the mainstay of treatment. H<sub>1</sub> blockers must also be continued.

#### Instructions to patients

- 1. The drug has to be continued without interruption for the prescribed period.
- It is useful to fix some form of alarm/ reminder to avoid missed/delayed doses.
- 3. Non steroidal anti-inflammatory drugs and preparations containing codeine must be avoided



Annular variant of urticaria

Photo: Chris Lovell

- concomitantly (taken together) as these can precipitate an acute attack.
- 4. In case symptoms do not completely remit or there is breakthrough urticaria, the patient must immediately report back. Try to elicit a history of any missed drug or taking of some over-the-counter preparation containing NSAIDS.
- 5. Any suspected inhalant/ingestant must be reported.
- 6. Those suffering from physical urticarias (cold, cholinergic or pressure urticaria) should try to avoid known trigger factors.

#### Urticaria in pregnancy

No antihistamine has been shown to be completely safe in pregnancy. However,

the older antihistamines, such as chlorpheniramine (4mg tid), are recommended for use in pregnancy. But here again, optimum dose and correct dosage schedules are vital.

#### Management of anaphylaxis

Severe laryngeal angioedema and/ or collapse requires emergency treatment with epinephrine. For adults and children aged twelve years and above, the dose is 0.5ml of 1:1000 epinephrine by intramuscular injection. If available, pre-filled syringes for emergency self-injection, or for use by a by-stander, may be carried by patients at significant risk of further life-threatening attacks. Such syringes deliver either a fixed dose of 300  $\mu g$  for adults or 150  $\mu g$  for children of 15 – 30kg. If there is no improvement after 15 minutes, the dose should be repeated. Anyone who has received epinephrine, even if they recovered satisfactorily, should be referred to hospital.

In summary, urticarias can usually be safely managed in the community and only very rarely require expensive investigations or referral to a hospital.

#### References

- 1. Dibbern D.A., Dreskin S.C. Urticaria and angioedema: an overview. *Immunol Allergy Clin North Am* 2004; **24**:141-162.
- 2. Kemp S.F., Lockery R.F, Wolf B.L., et al. Anaphylaxis: A review of 266 cases. *Arch Intern Med* 1995; **155**:1749-1754.
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- 4. Kozel M.M.A., Mekkes J.R., Bossuyt P.M.M., et al. The effectiveness of a history based diagnostic approach in chronic urticaria and angioedema. *Arch Dermatol* 1998; **134**: 1575-1580.

## **International Skin Care Group**

The International Skin Care Nursing Group is always looking for new ways to provide skin care education. On 30th September 2007, a day-long conference was held at the prestigious World Congress of Dermatology in Buenos Aires, Argentina. The programme had a range of international speakers and was webcast live so that anyone in the world could watch the meeting, as it progressed. It an attempt to broaden the appeal further, the speakers' slides were projected in both English and Spanish and the debate and questions were conducted in both Spanish and English.

Rebecca Penzer Independent Nurse Consultant in Skin Health Opal Skin Solutions

Email: rpenzer@opalskin.co.uk



The opportunity to watch the webcast either directly on line, or via a DVD, is still available. In order to do so log on to http://isng.phase-ii.co.uk/ and click on "New Conference Information" and follow the instructions on screen.

## **Superficial Fungal Infections**

## HOW WE MANAGE SUPERFICIAL FUNGAL INFECTIONS

Mahreen Ameen MA MD MRCP Consultant Dermatologist Royal Free Hospital London NW3 2QG United Kingdom

Visiting Consultant Institute of Dermatology and Skin Surgery Santo Domingo The Dominican Republic

Wanda Robles MBBS MD PhD Consultant Dermatologist Barnet and Chase Farm Hospital Barnet United Kingdom

#### Introduction

uperficial fungal infections are common worldwide and can affect both healthy and immuno-compromised persons. They affect the outer layers of the skin, the nails and the hair and can be divided into the following two main groups:

- **Dermatophytes** (*Trichophyton*, *Epidermophyton* and *Microsporum* species are most commonly involved)
- Yeasts (Candida, Malassezia)

'Tinea' refers exclusively to dermatophtye infections and is the most common of all superficial fungal infections.

**Table 1: Differential Diagnoses** 

| Tinea<br>corporis        | Discoid eczema<br>Psoriasis<br>Granuloma annulare  |
|--------------------------|--|
| Tinea capitis            | Seborrhoeic dermatitis<br>Bacterial furunculosis<br>Scalp psoriasis<br>Alopecia areata                               |
| Tinea pedis              | Contact dermatitis<br>Psoriasis<br>Dyshidrotic eczema<br>(pompholyx)   |
| Pityriasis<br>versicolor | Vitiligo Pityriasis rosea Pityriasis alba Guttate psoriasis Secondary syphilis Confluent & reticulate papillomatosis |
| Cutaneous<br>candidiasis | Tinea Seborrhoeic dermatitis Bacterial intertrigo Flexural psoriasis   |

Tinea is often described according to the body site affected such as tinea manuum (affecting palms and finger webs of usually one hand, in conjunction with tinea pedis), tinea cruris (affecting the groin and pubic region), tinea barbae (affecting the beard region of men) and tinea faciei (affecting the face). Only the most common tinea infections, namely tinea corporis, tinea capitis and tinea pedis are described below. Pityriasis versicolor is sometimes confusingly described as 'tinea versicolor', although it is not caused by a dermatophyte. It is caused by a yeast and will be discussed together with cutaneous candidiasis, another important infection caused by a yeast. Onychomycosis (tinea unguium), infection of the nail, is not described in this article.

Fungal infections can often be confused with other inflammatory skin diseases and Table 1 gives their differential diagnoses. Simple diagnostic tests, if available, can help. Finally, treatment will depend on the body site affected, availability and cost of medication. Preventative measures are important to reduce risk of recurrence.

#### **Aetiology and Clinical Presentation**

Tinea may be transmitted by person to person contact or via animal (usually cat or dog) contact. It may also be acquired by sharing contaminated objects such as combs, hats, shoes, sheets or towels. Tinea is also sometimes described as 'ringworm', particularly when it affects the scalp or body, where it can produce round lesions.

Tinea corporis can present with single or multiple lesions which are usually round, scaly patches with a prominent border, which enlarges leaving a clearer centre. The border may contain follicular papules or pustules. In black skin, the erythema may not be apparent and instead the lesions may appear pigmented.

(Causative organism: *Tinea rubrum* is most common)

Tinea capitis usually affects infants, children or young adolescents. It is very uncommon in adults unless they are immuno-compromised with HIV infection, for example. It has a variety of clinical presentations and is frequently associated with hair loss. The whole of the scalp must be examined for evidence of scaling and hairs broken close to the surface. The following four clinical presentations may



Tinea capitis

Photo: Mahreen Ahmeen

each occur alone or in conjunction with another:

- Patches (erythematous or grey depending on skin colour) well-defined and scaly, solitary or multiple. Pustules may be present. This is the most common presentation. (Causative organisms: *Microsporum / Trichophyton*)
- 'Black dot' these occur as a result of hair breaking at the surface of the scalp. This infection is always spread from child to child. (Causative organisms: *Trichophyton tonsurans* or *violaceum*)
- Kerion is caused by a hypersensitivity reaction to a dermatophyte which produces a very inflammatory purulent and painful, boggy nodule or plaque, often with pustules on its surface. Healing can result in scarring and hair loss. It may be associated with secondary bacterial infection which may also require treatment. It is often associated with cervical lymphadenopathy in children. (Causative organisms: several *Trichophyton* species)
- Favus is a chronic infection that can occur in both adults and children and gives erythematous and scaly areas with thick yellow crusts which usually heal with scarring. (Causative organism: *Trichophyton schoenleinii*)

Tinea capitis can be highly infectious between children and, therefore, close contacts, including siblings as well as other children in school, must be screened and all infected cases should be treated at the same time to prevent reinfection.

## **Superficial Fungal Infections**



Tinea corporis

Photo: Mahreen Ahmeen

**Tinea pedis** is a very common fungal infection and usually involves the plantar surface and interdigital spaces of the foot. It has the following three clinical presentations:

- Interdigital infection: white macerated skin between toe web spaces particularly 4<sup>th</sup> and 5<sup>th</sup> spaces. This is the most common type of tinea pedis and is often associated with itch.
- Dry, scaly, hyperkeratotic, 'moccasin' type.
- Vesicular, pustular or bullous lesions.

Cracked skin caused by tinea pedis can allow bacteria to enter and lead to serious infections such as cellulitis. This can be particularly serious in those patients already affected by lymphoedema of the legs.

Fungal nail disease may also be present and, therefore, the nails must also be carefully examined and treated, otherwise the risk of re-infection is high.

(Causative organism: most commonly *Trichophyton* species)

Pityriasis versicolor is common in tropical climates and occurs mainly in young and middle-aged adults by a lipophilic (i.e., attracted to grease) yeast, Malassezia furfur. It is, therefore, typically found in oily areas of the body, such as upper trunk, arms and neck. Hot, humid weather, greasy skin, the application of oils and occlusion by clothing predispose to its development. The lesions can be either hypopigmented or hyperpigmented. Active lesions are usually scaly and if this is not apparent the scales may be elicited by stretching and rubbing the skin. It sometimes, but not always, causes itching. It has a high rate of recurrence and following treatment can leave residual postinflammatory hypo- or hyper-pigmentation, which can confuse both patients and clinicians, making them think that active infection is still present.

Cutaneous candidiasis is caused by the yeast *Candida*, most commonly *Candida albicans*. It most commonly affects the skin folds and mucosae but can affect any part of the skin. Those who are immunosuppressed (e.g., diabetes or AIDS), obese or wear tight clothing are most susceptible. It can present with erythema and maceration and the presence of satellite lesions are an important clue.

#### **Diagnosis**

When there is any uncertainty, a clinical diagnosis may be confirmed by simple microscopy and culture. Direct microscopy of samples is performed using 10-20% potassium hydroxide, examining for hyphae and spores. The active region, which is usually the outer border of the lesion, is scraped using a clean blade. In the case of tinea capitis, hair from the affected area must also be plucked, together with skin scrapings. Culture is performed on Sabouraud's medium. If, in addition, a bacterial infection is suspected, a swab should be taken for bacteriology.

It can be useful, sometimes, to use filtered ultraviolet light or 'Wood's light', if available, which will fluoresce bright green in the presence of *Microsporum* infections, sometimes involved in tinea capitis. It will fluoresce yellow-green in areas affected with pityriasis versicolor.

However, when these facilities are unavailable, the clinician must rely on clinical judgement only. As a result, mild fungal infections may be missed or alternatively infections may be over diagnosed.

#### **Treatment**

Topical treatment with creams, ointments or lotions is usually sufficient for most infections confined to the skin. Generally, ointments should be used for thick, hyperkeratotic lesions, creams for dry, scaly lesions and lotions for intertriginous or hairy areas. However, infections involving hair-bearing areas and nails always require systemic treatment, either tablets or syrup.

The following antifungals may exist in both topical (cream/ointment) as well as systemic (tablet/syrup) preparations: clotrimazole, miconazole, econazole, itraconazole, ketoconazole, fluconazole, terbinafine and nystatin. Griseofulvin, however, may only be taken orally. All of these antifungals are effective against both dermatophytes as well as yeast *except* for griseofulvin and oral terbinafine, which act only against dermatophytes, and nystatin

which is effective only against *Candida*. Topical econazole and miconazole also have anti-bacterial properties.

If tinea corporis is resistant to topical treatment, extensive or in an immunocompromised patient, it may be treated with oral medication, e.g., ketoconazole 3-4mg/kg/day for 2-4 weeks (NB: risk of hepatitis), or griseofulvin 10mg/kg/day for 6 weeks, or terbinafine 250mg od for 2 weeks. In many countries, griseofulvin is cheaper than other oral antifungal drugs and, in some countries, is the only licensed treatment for tinea capitis in children, given at a dose of 10mg/kg/day, taken with a fatty meal for a minimum of six weeks - and continued for at least two weeks, until after symptoms have resolved or until fungal cultures (if available) are negative. Terbinafine and ketoconazole are alternative treatments for tinea capitis.

Cheaper alternatives to branded antifungal preparations include Whitfield's ointment (normally 6% salicylic acid together with 12% benzoic acid) and Castellani's paint. Both are particularly useful for skin folds or areas of maceration. Castellani's paint should be avoided in children because of the risk of absorption of phenol. Gentian violet also has anti-yeast properties.

#### Treatments for pityriasis versicolor:

- 2% selenium sulphide/ ketoconazole shampoo (apply for minimum 10 minutes daily for one week, after working into a lather)
- Whitfield's ointment
- 20% sodium thiosulphate solution (applied nightly for 6 weeks)
- Clotrimoxazole/ econazole/ miconazole/ ketoconazole cream
- Terbinafine cream (NB: terbinafine tablets have *no* effect)
- Ketoconazole 200mg bd for 2 days or 200mg od for one week.



Tinea cruris extending to buttocks Photo: Mahreen Ahmeen

## **Superficial Fungal Infections**

#### Treatments for cutaneous candidiasis:

- Clotrimoxazole/ econazole cream
- Gentian violet paint
- Nystatin cream
- Ketoconazole/ itraconazole/ fluconazole tablets - in extensive disease.

#### In addition:

- Pain associated with kerion formation of tinea capitis may be alleviated by soaking the crust away with potassium permanganate soaks.
- If a secondary bacterial infection is suspected and bacteriology is not available, the most common incriminating bacterium is *Staphylococcus aureus*, which may be eradicated with a one week course of flucloxacillin (adult dose: 500mg orally qds).
- Sometimes after beginning an antifungal treatment for a dermatophyte infection, some patients may develop multiple itchy papules, most commonly on the face and trunk. This is known as an 'id'reaction which is

an immunological reaction. Despite this, treatment should continue.

#### **Prevention**

#### General measures:

- Correct any predisposing factors where possible, eg., poorly controlled diabetes or malnutrition.
- Skin should be washed daily and dried carefully, particularly between toes and skin folds.

## Measures to reduce reinfection / infection to others:

- Infected persons should not share towels, sheets, clothing, combs, etc.
- Clothing of infected persons should be washed at a very high temperature to kill fungi. Brushes and combs should be cleaned in a bleach solution.
- Avoid wearing tight occlusive and synthetic clothing.
- Wear open-toed sandals or flip flops when possible. Avoid long periods of time in gum (rubber) boots.

- Wear shoes/ sandals in public places where others may walk with bare feet.
- If the infection has been spread by an infected animal, it should be identified and treated as well.

#### **Further Reading**

- Clinical protocols (Tinea capitis, Tinea pedis) of the International Foundation of Dermatology website: www.ifd.org
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## **BLISTERS QUIZ: QUESTIONS**

#### Claire Fuller MA FRCP Consultant Dermatologist East Kent Hospitals NHS Trust United Kingdom

#### Formerly:

Senior Lecturer Regional Dermatology Training Centre (RDTC) Moshi, Tanzania

#### Photographs by Professor Ben Naafs

#### Slide 1:

Cluster of flaccid / fragile blisters containing pus clustered in this area:

- 1. What is the diagnosis?
- 2. What is the treatment?



#### Slide 2:

This patient has recently been treated for malaria with fansidar:

- 1. What is the diagnosis?
- 2. What is the cause?
- 3. What would you do?



#### Slide 3:

Before these blisters developed there was a tingling sensation:

- 1. What is the diagnosis?
- 2. What is the cause?
- 3. How would you treat it?
- 4. What advice, for the future, would you give to the patient?



Answers on page 30...

## **LOW-COST DRESSINGS**

Terence J Ryan DM FRCP Emeritus Professor of Dermatology Department of Dermatology Oxford, UK

Duncan Murray BM BCh (Oxon) Wexham Park Hospital Slough SL2 4HL, UK

Photographs by Duncan Murray

#### Introduction

ressings must be changed regularly to maintain their effectiveness. They should remain clean to prevent further infection, create a 'breathable' environment, absorb exudate, and protect from mechanical damage. Bandages, similarly, do not indefinitely maintain their properties, whether used to



Professor Ryan examines the work of one week by one weaver. Total cost of materials: £3.50/\$7.00



Dressings on display

hold dressings in place or for compression in limb oedema. In areas where dressings and bandages can be difficult to obtain, providing a cheap and available source could alleviate some of the problems with over-use of old dressings. In India, we found that a leprosy community had succeeded in creating the bandages from the picked cotton.



A leprosy patient weaving



A patient in Kerala dressing and bandaging his leg. He cannot afford to buy new ones



An In-house Weaving Centre for persons affected by leprosy in Tamil Nadu is a solution to cost



Sewing



Spinning the cotton

#### **Conclusion**

In certain medical communities, with the available equipment, it appears to be possible to alleviate the cost of dressings by weaving their own. This is a potential solution for groups of patients who are re-using dressings because they cannot afford new ones.

## **RDTC RESEARCH REPORTS: MOSHI, TANZANIA**

## The prevalence of skin wounds and wound myiasis among the people of Hanang District, Arusha, Tanzania

Epimack Semali, Tanzania

Sterile larvae (maggots) are being used extensively to clean up dirty wounds and to speed their healing. Epimack Semali decided to look at how commonly this occurred naturally in a rural area of Tanzania. He visited 5,018 individuals in

their homes and asked them about any wounds on their skin, and what treatment they had used. He then examined them to find out what kinds of wounds they had and whether maggots were present or not. He was hoping to collect some of the maggots so that he could find out which flies were laying their eggs in wounds in that area. He thought that this would be helpful if they wanted to set up a larva laboratory locally.

He found that 18.4% of individuals had wounds but these were mainly superficial cuts and grazes, burns, and ecthyma

associated with scabies. Of these, 80% had been present for less than a month, 14% had been present for 2-3 months,



Maggots in a wound of the leg Photo: Barbara Leppard

## **RDTC Research Reports: Moshi, Tanzania**

and only 0.8% had been present for more than 12 months. Only 14 people had deep ulcers (0.3%) and these were all clean and well dressed. None of the wounds were infested with maggots. Most of the wounds were in primary school children. Two thirds had not used any treatment on

their wounds; 18% had applied procaine penicillin powder topically.

He was disappointed not to find any maggots, but this was not surprising given the nature of the wounds seen. His recommendations to the District Health Man-

agement Team were that primary health care workers should learn how to recognise and treat scabies, and that topical penicillin powder should not be used to treat wounds because of the risk of it causing an allergic contact dermatitis.

## What do secondary school pupils know about HIV/AIDS and how has this influenced their sexual behaviour?

Lilian Kopwe, Mwanza, Tanzania Christine Salbei, Nakuru, Kenya Clement Mtika, Nkhata Bay, Malawi

According to UNAIDS and WHO, more than 3 million young people aged, 15-24 years, are infected with HIV each year. The largest number of these are in sub-Saharan Africa, where 90% of infections are caused by unprotected heterosexual intercourse. In most of these countries, information on sexual matters is gleaned from the media or from peers. Sexual matters are never discussed in the

home, where it is a taboo subject.

Three RDTC students from 3 different sub-Saharan African countries - Tanzania, Kenya and Malawi - each visited 5 or 6 secondary schools in their local area to administer a questionnaire to between 400 and 500 students. The idea was to find out how much the students knew about the signs and symptoms of HIV/AIDS and how it is transmitted. In addition, the students were asked about their own sexual practices – whether they were sexually active, how many partners they had had, and whether or not condoms were used. Privacy and confidentiality were ensured by spacing the students well apart as they filled in the questionnaires, and not requiring them to put their names on the forms.

In all three countries there were equal numbers of male and female students and they ranged in age from 13-22 years, although the majority were in the 16-18 year age bracket.

In all three countries the students had good knowledge about HIV/AIDS and how it is transmitted. This knowledge increased with increasing age, was slightly better in girls than boys, but was not different in single sex schools compared with mixed schools.

In spite of their good theoretical knowledge, 45% of secondary school students admitted to being sexually active. More than half of these were not using condoms regularly, and 6-7% admitted to having multiple partners.

Further education about the risks of infection is obviously needed at secondary school level if the AIDS epidemic is to be halted.

## **BLISTERS QUIZ: ANSWERS**



#### Slide 1: Impetigo

This is caused by a bacterial infection of the skin, usually *Staphylococcus*. It is quite infectious and can spread amongst children. It can be treated with topical antiseptics such as gentian violet but, if widespread, or the patient has a temperature, systemic antibiotics should be used, to which *Staphylococcus* is sensitive - such as erythromycin or flucloxacillin.



#### Slide 2: Toxic Epidermal Necrolysis

This is a serious, life threatening drug reaction, most commonly seen in the developing world, secondary to sulphur drugs, e.g., fansidar. Patients with HIV seem more susceptible. Treatment involves stopping the responsible agent, careful nursing in an isolated environment - with meticulous attention to fluid balance and careful application of emollients to protect the underlying damaged skin and exposed dermis, as it regenerated. The use of systemic steroids to 'switch off' the reaction is controversial.



#### Slide 3: Herpes Simplex

This is caused by a virus, herpes simplex. The patient may have had an attack in the past. It is usually self limiting, with each episode lasting about a week to 10 days. However, during the attack the patient is infectious to others. The recurrent episodes always occur in the same place. If they are occurring very frequently, or the patient is immuno-suppressed, e.g., has HIV, they should be treated with aciclovir tablets 800mg 5 times per day for 7 days.

## **EXTRACTS FROM JOURNALS**

Neil H Cox BSc(Hons) FRCP Consultant Dermatologist Cumberland Infirmary Carlisle CA2 7HY UK

## Myiasis owing to *Dermatobia* hominis in a HIV infected subject: Treatment by topical ivermectin

Clyti E., Nacher M., Merrien L., El Guedj M., Roussel M., Sainte-Marie D., Couppié P.

Int J Dermatol 2007; 46: 52-54

These authors describe use of topical ivermectin for removal of larvae in myiasis. Numerous 'home' remedies to remove larvae have been tried, including occlusion of the discharging nodule with honey or Vaseline, and allowing the larvae to burrow into pork fat or other meats, but removal remains difficult because of the shape and spikes on the body of the larvae (the thin end extrudes from the skin, but the broader end is anchored). In this report the larvae were killed using topical 1% ivermectin in propylene glycol four times daily, then easily extracted under local anaesthetic the next day. Topical ivermectin is marketed as a veterinary product in some countries.

#### Melasma

#### Asian Society for Pigment Cell Research

Pigment Cell Res 2007; 20: 228-232

A selection of items about melasma is presented from the published abstracts of this conference. Rizal et al described a series of 405 cases (0.72% of attenders) over a 6-year period at a clinic in Indonesia the pattern was centrofacial in 41% and malar in 54%. The main causes were sunlight (53%), oral contraceptive (19%) and pregnancy (7%). Chan et al used a cream of 4% hydroquinone (HQ), fluocinolone acetonide 0.01% and tretinoin 0.05% for moderate to severe melasma in Asian skin. They showed statistically greater benefit on several measures compared to use of 4% HQ alone - patient satisfaction was 70% in the triple therapy group, compared with 50% in the HQ group. Finally, a small (17 patients) commercial study (Matta et al) showed 59% improvement using a cream containing niacinamide 5% and licquorice extract 0.2% applied to one side of the face, versus 24% for the cream base alone applied to the opposite side.

#### **HIV in the Middle East**

Obermeyer C.M.

BMJ 2006; 333: 851-854

This article on HIV is from a copy of the British Medical Journal (21 October 2006) devoted entirely to health issues in the Middle East. This review covers issues in Arab countries and Iran. Denial of the existence of HIV in some areas led to the suggestion that its incidence was very much higher than the reported figures, but in fact this does appear to be a low incidence area, at present. Thus, the area includes 5% of the world population but contributes only about 1% of cases of HIV / AIDS. Wars in the region are a factor in increasing incidence, but religious objections to extramarital sex reduce the risk of transmission. However, the latter is more strictly applied to women, and marriage of younger women to older men has led to infection occurring at a younger age in women than in men. As in many countries, increased knowledge and awareness are advised.

#### Impact of short-term dermatology medical trips in the developing world

Saxton-Daniels S., Pandya A. G.

J Am Acad Dermatol 2007; 56: 672-674

This article is an individual's account of the potential impact of a visiting dermatologist in India, and what was achieved at an orphanage in one day. Some of the issues raised are well known - the vast majority of problems were in one of four groups - which were pyoderma, fungal infections, head lice and scabies. Of 300 children at the orphanage, 60 were seen by the dermatologist with two non-medical missionaries also there to be taught. The important message, although in no way new, is that the most effective use of a dermatologist in such situations is to teach other people. Although skin disease is common in resource-poor countries, the majority is due to a small number of conditions, so it is an ideal situation for teaching less highly trained staff how to deal with the commonest problems. As Professor Lookingbill said in 1994, 'teach the students how to fish rather than giving them fish'.

#### **Neglected tropical diseases**

Yamey G., Hotez P.

BMJ 2007; 335: 269-270

Although truly tropical diseases account for only a minority of skin disease in tropical countries, they still have great importance. This British Medical Journal editorial highlights some neglected tropical diseases which, from a dermatology viewpoint, include lymphatic filariasis, onchocerciasis, leprosy and Buruli ulcer. Development of new drugs for some of these is gradually increasing (such as ivermectin for onchocerciasis) – importantly, some of this new development of drugs is occurring in countries such as Brazil and India. A particularly useful issue for readers is that a new journal is being funded by the Bill and Melinda Gates Foundation from October 2007, called the PloS Neglected Tropical Diseases (www.plosntds.org) it is open-access, non-profit, and largely edited by doctors in relevant countries.

#### Cutaneous anthrax in a remote tribal area - Araku Valley, Visakhapatnam District, Andhra Pradesh, southern India

G. Raghu Rama Rao, Jyothi Padmaja, M. K. Lalitha, P. V. Krishna Rao, Hari Kishan Kumar, K. V. T. Gopal, M. Jaideep, Promila Mohanraj.

Int J Dermatol 2007; 46: 55-58

This report of a small series of cutaneous anthrax in an endemic area is a useful reminder that possibly as many as 100,000 cases occur annually in remote rural areas, although the figures are uncertain. Lack of vaccination of cattle is important as an ongoing source of infection. About 50% of human anthrax is cutaneous, and spontaneous cure will occur in 90% even if untreated, although mortality from cutaneous infection remains significant without treatment. Penicillin is often adequate although, because of penicillin resistance in some areas, docycycline or ciprofloxacin are preferred. For those readers, like myself, who do not see cutaneous anthrax, the illustrations in this article show lesions on two thumbs, morphologically very similar to orf but a bit more necrotic.

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Dr Paul K Buxton (Editor) &
Dr Christopher Lovell (Deputy Editor)
Community Dermatology
British Association of Dermatologists
4 Fitzroy Square
London W1T 5HQ
United Kingdom

by Email to:

pkbuxton@doctors.org.uk

Copy to:

christopher.lovell@ruh-bath.swest.nhs.uk

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Dr Murray McGavin ICTHES World Care PO Box 4101 GLASGOW G53 9AF Scotland, UK

Tel: 0044 (0) 141 322 1707 Email: m.mcgavin@icthesworldcare.com Web: www.icthesworldcare.com

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