

# Community Dermatology Journal



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## Celebrating and thanking the Founding Chair of the Editorial Board

A thank you to Dr Paul Buxton, MBBChir FRCPEd

Claire Fuller, Roderick Hay

*International Foundation for Dermatology*



Paul Buxton and Kassahun Bilcha at Gondar Hospital  
Photo: Chris Lovell

It is now ten years since the first edition of *Community Dermatology*. Our international journal for community skin health came into being following the enthusiasm and dedication of Dr Paul Buxton. Dr Buxton stepped down as Chair of the Editorial Board last year handing over to Drs Christopher Lovell and Michele Murdoch.

Dr Buxton had a longstanding passion for Africa. He was born in Ethiopia, where his medical missionary father, Kenneth Buxton FRCS, started a medical school. This early exposure influenced his choices and fostered a deep commitment to caring for those in medical resource poor settings. After completing his medical training in the UK he worked with the Grenfell Mission in Newfoundland and then set off on his specialist dermatology training back in the UK.

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Paul Buxton teaching at ALERT Hospital, Addis Ababa  
Photo: Chris Lovell

As a consultant in Scotland he developed a keen enthusiasm for teaching and writing. His most widely known teaching text "ABC of Dermatology" which started as a series of articles in the British Medical Journal is now on its 5<sup>th</sup> edition and continues to aim at teaching dermatological knowledge to medical students and non

specialist health care workers. He even produced an edition for use in "hot climates" in 1999.

With over 40 publications in peer reviewed journals since 1966, over a distinguished career, Dr Buxton has developed and taught his dermatological juniors but always kept a place for Africa and resource poor dermatology in his heart.

In 2004 encouraged by the success of Community Ophthalmology, a journal for communicating teaching of eye medicine to resource poor health care workers, Dr Buxton launched Community Dermatology. The aim of the journal at the outset was to bring up to date, relevant information on the diagnosis and treatment of skin disease to health workers in rural areas, using the resources available to them. It also set out to provide information that could be used to educate health workers and the populations they serve. Currently on its 17<sup>th</sup> edition the journal continues to develop and progress reaching a wider community and is now available electronically via the IFD website. <http://www.ifd.org/activities/community-dermatology-journals>. As well as having teaching articles on practical aspects of the care of skin disease, it includes contributions from readers and so acts as the forum and voice for those practising in resource poor settings in rural areas.

Dr Buxton has now retired and we wish him well as he continues with his other interests of Christian Medical Ethics, art and seafaring. We are delighted that he continues to serve on the Editorial Board as Founding Editor.

## JOURNAL CLUB

# *Leprosy treatment dropout: a systematic review*

Girão RJ *et al.* *Int. Arch. Med* 2013; **6**: 34. (Free article online)

**In this study from Brazil, the authors reviewed papers published between 2005 and 2013 on the reasons why leprosy patients failed to comply with treatment. Despite the WHO resolve to eradicate leprosy as a public health problem, over 200,000 cases were notified worldwide in 2010. Although the condition is potentially treatable, non-compliance increases the reservoir of potentially infective individuals and contributes to multi-drug resistance.**

Reasons for treatment dropout include adverse effects from the drugs but personal and social factors are equally, if not more, important. These vary in different regions of the world.

Thus, in India, non-compliance is linked to low socio-economic status but this seems to be less relevant in the Philippines; here the patient is 3.6 times more likely to complete treatment if it is prescribed in a health centre and he/she is told the name of the condition. In Nepal, many individuals regard leprosy as God's just punishment for sin – medical treatment will be expected to fail. Some patients abandon treatment because it does not eradicate signs or symptoms such as nerve damage. In Brazil, young males of productive age (20-39) are especially at risk of poor compliance, partly through loss of working hours to attend clinics. Some patients may choose not to attend a local clinic because of the stigma associated with the condition.

Clearly, solutions need to be found for the problem of non-compliance. These solutions, however, need to be identified locally, and will need to include education about the condition and the reasons for, and expectations of treatment.

CRL

# Teledermatology in Nepal: A model providing sustainable healthcare and educational services helping overall community development

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**Conflict of interest: None**

## Abstract

Telemedicine is now also being used in many developing nations to deliver healthcare to distant communities. With increasing penetration and decreasing costs of information technology services, several telemedicine projects have been initiated in Nepal. Besides the difficulties in building infrastructure and technologically connecting with remote geographical locations, networking with beneficiary communities and ensuring sustainability of services remains a major challenge. Community Health Education and Services by Telehealth (CHEST Nepal), a non-profit organisation, has developed a unique model for tele-health and implemented it in two distant communities.

Unique features of this model are a hospital to community network, complete ownership of the community, including decision-making and revenue generation and maximum utilization of teleconferencing infrastructure by providing other educational and vocational training services in addition to teledermatology.

## Introduction

Many developed nations have incorporated telemedicine into their healthcare systems in order to serve distant communities with scarcity of specialist manpower.<sup>1</sup> Telemedicine is now also being used in many developing nations to deliver healthcare to distant communities, which has been made possible by the developments

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## KEY WORDS

*skin disease  
telemedicine  
Nepal*



**Certificate distribution by Prof. Gunter Burg in remote village. Photo: the author**

# Tele dermatology in Nepal *continued*

in information and communication technology. Similar technology has been used for other purposes, including computer training and agricultural projects.

Nepal is a landlocked country 800 kilometers long along the Himalayan axis and 150 to 250 kilometers across, covering an area of 147,181 square kilometers.<sup>2</sup> Geographically composed of mountains in the north, middle hills and the flat plains in the south, it has a population of 26.6 million, with the majority residing in rural areas.<sup>3</sup> The health service in the country is largely provided by a network of 95 public hospitals, 209 primary health care centers, 676 health posts and 3129 sub-health posts. Their disease morbidity report shows skin diseases as one of the most common reasons for seeking healthcare.<sup>4</sup> However, the dermatology workforce comprises less than 100 dermatologists, the majority of whom practise in the cities.

There are several telemedicine projects in Nepal managed by both the private as well as government sectors. Various barriers have been reviewed making implementation and sustainability of projects the most significant challenge.<sup>5</sup> There was a perceived need to develop a sustainable model for tele dermatology tailored to the needs of the community.

## Materials and methods

### The project

The Community Health Education and Services by Telehealth (CHEST) Nepal is a non-profit organization dedicated to providing health, education and vocational training services to distant rural communities through tele-technology. Since 2009, it has launched an initiative which utilises tele-health infrastructure as a platform for providing dermatological and other services such as education and vocational training to rural people, aimed at overall community development.<sup>6</sup>

A distant rural community where such service is feasible to be implemented is first identified. Community leaders are then appraised of the project and several responsible members are appointed to co-ordinate the various aspects of services to be provided. A memorandum of understanding is then signed between CHEST and the community. Various needs of the community are identified and the co-ordinators work with CHEST Nepal to help implement the required services. Initial technical

assistance is provided by CHEST. However, in order to ensure sustainability of the project, the members are advised to plan an affordable system of payment for the services and generate revenue. A unique feature of this project is that it is owned and managed by the community members.

The telemedicine center of CHEST Nepal is located at the DI Skin Hospital and Research Center in Kathmandu (DISHARC). A real-time telemedicine setup is used to provide consultation services for patients with skin diseases on a regular basis. Store and forward methods are used to support tele-conferencing where there are connection problems, and also for follow up. The same infrastructure is also used to provide education and other vocational training services to rural communities, as per their needs. Training programs on information technology, agriculture, educational lectures and interaction with related experts are provided using this infrastructure from DISHARC. As opposed to other telemedicine projects in Nepal which network between a city hospital and peripheral hospitals, this is a hospital to community network.

Basic equipment includes a laptop, camera and internet via cable and wireless connections, together with mobile (cell) phone and email. Hard copy data on each patient are stored at both the community and hospital bases.

## Results

This first phase of this project was successfully implemented at Gerkhutar village of Nuwakot district in Nepal. The inhabitants of this village and several surrounding villages had no local healthcare facilities. 130 tele-referrals were received, chiefly concerning common skin diseases such as infections (fungal, bacterial or viral), eczema, psoriasis, vitiligo and dry skin (xerosis). The virtual clinics were held at least once a week. The villagers now receive regular dermatological consultation and treatment. CHEST Nepal also co-ordinates with local drug distributors in order to ensure supply of drugs for skin diseases and other essential drugs to the community, thus, enabling villagers to purchase medicines at a lower price than other retail outlets. In addition, more than 20 community members also received basic training in information technology, building their capacities for higher education and potential employment. It is noteworthy that members comfortably receive services in their community environment saving significant time and money. Sustainability of the project is expected to reach out to a potential beneficiary population of around 50,000, including several surrounding villages. The minimum starting cost was around US\$3,000.

The second phase of this model has been implemented at Bavangama Lohana, a terai village community in Dhanusha district (southern plains of Nepal). With the motto "Reaching the Unreached", CHEST Nepal is working continuously to identify needy rural communities and reach out to many more.

## Discussion

One of the most common barriers to successful implementation of tele-health programs is cost. This gives rise to various other issues such as accessibility, quality of service and cost-effectiveness.<sup>7</sup> However, the newer developments in information and communication technology (ICT) has enabled reduction in costs and greater penetration of such services to remote corners



Tele consultation from Kathmandu to Bavangama, a remote village in Terai. Photo: the author



**Community members of a remote mountain village who have benefitted from computer training and general health services via Tele dermatology. Photo: the author**

of many developing countries. In Nepal too, ICT services has seen exponential growth in the last several years reaching out to more far flung areas of the country. Nevertheless, several socio-cultural and human factors also have a significant influence on the acceptability, implementation and sustainability of tele-health programs. Nepal is a country with a majority of rural population and has many development programs in other sectors working for the community. The key to success of these programs mainly lies in active community participation. We felt that programs owned and managed by the community with assistance from experts will be instrumental in generating funds and motivating the community. The World Health Organization estimates that 40 percent of nations worldwide have some form of teledermatology services.<sup>7</sup> Considering the feasibility of implementation CHEST has started with teledermatology services, and has worked out this model of tele-health to maximize the utilization of ICT infrastructure in order to ensure sustainability.

In this model, we employed face to face tele-conferencing in preference to store and forward technology where feasible, as this type of consultation can lead to greater patient confidence in the consultant. However, connection disturbance is common, and there is need for back-up with store and forward methods.

## Conclusion

One of the major challenges faced by telehealth services is sustainability. Schemes for self-generation of revenue, persistent motivation of community members and ensuring their active participation is crucial for this. It is also essential to identify other hurdles and objectively assess the outcome at regular intervals.

## References

1. Rao B, Lombardi A. Telemedicine: current status in developed and developing countries. *J Drugs Dermatol* 2009 Apr; 8(4):371-5.
2. Geography of Nepal. [http://en.wikipedia.org/wiki/Geography\\_of\\_Nepal](http://en.wikipedia.org/wiki/Geography_of_Nepal). accessed on 05.07.2013.
3. Population Census 2011: Central Bureau of Statistics, Nepal
4. Annual Report 2010/2011. Department of Health Services. Government of Nepal.
5. Subedi RR, Peterson CB, Kyriazakos S. Telemedicine for Rural and Underserved Communities of Nepal. In Dremstrup K, Rees S, Jensen MO (Eds): 15<sup>th</sup> NBC on Biomedical Engineering & Medical Physics, IFMBE Proceedings 34, pp. 117-120, 2011.
6. Jha AK, Gurung D. Reaching the Unreached: A model for sustainable community development through information and communication technology. *J Nepal Med Assoc* 2011; 51(184):213-14.
7. Telemedicine: Opportunities and developments in member states. Report on the second global survey on ehealth-2009. Global Observatory for eHealth series- Volume 2. World Health Organization 2010.

# A resurgence of a forgotten disease

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**Two cases with similar presentations are discussed below in a bid to remind the clinician in the developing countries of a disease sometimes forgotten.**

## CASE 1

A 17 year old girl presented with acute onset abdominal pain and, having signs of peritonitis, was taken to theatre where they found a perforated terminal ileum and localized intra-abdominal abscess. She was noted to have a skin condition that had been present for the past two months. She had no diarrhoea, agitation, irritability or dementia.

She comes from a family of 10 siblings and despite her parents being alive her main guardian is the grandmother. Their diet mostly consists of ugali (traditional meal made from maize), milk and kale; rarely do they have meat or eggs.



Well demarcated hyperpigmented lesions on extremities.  
*Photo: the author*





Palmar and interdigital involvement. *Photo: the author*

On examination there were skin lesions involving her hands including intertriginous areas, wrists, forearms, extensor aspect of her elbows and malar areas. They were hyperpigmented with well defined margins and associated with mild pruritus. She also had angular cheilitis and complained of general body weakness. The rest of the examination was unremarkable.



Scaling on nose and V-shaped hyperpigmentation on neck. *Photo: the author*

## CASE 2

A 36 year old lady presented with 4 months' history of skin lesions involving hands, wrist, forearm, face, neck and trunk. She described the lesions as beginning on her hands and legs then spreading to the neck and trunk. Her tongue was inflamed with aphthous ulcers and angular cheilitis. She had three days of watery diarrhoea on her initial presentation. Other than weakness she had no neurological signs. She had no other chronic illnesses.

She is married with 5 children and her husband works at a tea plantation. She is a peasant farmer and grows mainly tea and maize. Her diet mostly consists of ugali and kale, she rarely takes milk and meat.

During her second visit the lesions were drying, especially in intertriginous areas, with peeling skin.

*Continued overleaf...*



Skin lesions on hands, wrists, forearms and neck. *Photo: the author*



**WHAT IS THE DIAGNOSIS?...WHAT IS THE CAUSE?...HOW IS IT TREATED?**

*See page 11 for the answer*

# MYIASIS

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## KEY WORDS

*myiasis*  
*tumbu fly*  
*maggots*  
*Dermatobia*  
*Cordylobia*

Myiasis is the infestation with the *larval stage (maggots)* of various flies. Flies in several genera may cause myiasis in humans.

Myiasis occurs most frequently in *tropical and subtropical areas*. People with *untreated and open wounds* are more at risk for getting myiasis.

## Life Cycle

There are several ways for flies to transmit their larvae to people.

Some flies (e.g. *Dermatobia hominis*) attach their eggs to mosquitoes and wait for mosquitoes to bite people. Their larvae then enter these bites. The larvae feed in a subdermal cavity for 5-10 weeks, breathing through a hole in the host's skin. Mature larvae drop to the ground and pupate in the environment.

Other flies' larvae burrow into skin. These fly larvae are known as screwworms. They can enter skin through people's bare feet when they walk through soil containing fly eggs or attach themselves to people's clothes and then burrow into their skin.

Some flies deposit their larvae on or near a wound or sore, depositing eggs in sloughing dead tissues.

## Pathophysiology

The pathophysiology of myiasis is dependent on the type of fly involved.



**Fig 1: Furuncular myiasis**  
Photo: the author



**Fig 2: Wound myiasis**  
Photo: the author

Worldwide, the most common flies responsible for myiasis are *Dermatobia hominis*, or the human botfly, and *Cordylobia anthropophaga*, or the tumbu fly. Both are responsible for furuncular myiasis.

*Cochliomyia hominivorax* in America and *Chrysomya bezziana* in Africa, Australia, and Asia cause wound myiasis.

*Oestrus ovis*, or sheep botfly, causes ophthalmomyiasis (ocular infestation).

The **tumbu fly** is endemic in sub-Saharan Africa. Adult flies resemble stocky houseflies and are active during the early morning and afternoon. They are attracted by the odour of urine and faeces. Females lay eggs on sandy soil or clothing; therefore they cause lesions on areas of the body normally covered with clothing. Eggs hatch in 1-3 days and can survive up to 2 weeks while awaiting contact with a host. When exposed to local heat, they migrate and penetrate local skin. Within the host they grow up to 13-15 mm, usually completing their larval stage in 9-14 days. Children are most commonly affected.

## Signs And Symptoms

**Furuncular myiasis**, the most common manifestation of myiasis (Fig 1), produces typically boil-like lesions that may be painful, pruritic and tender. An erythematous papule, 1-3 cm in diameter and up to 1 cm in height, develops with 24 hours of infection. There may be the sensation of something moving under the skin. The lesion has a central punctum with serosanguinous discharge. Larvae rely on the central punctum to provide airflow to breathe, and bubbles may be



seen exuding from the punctum. The **primary reaction or secondary infection** may produce lymphangitis and regional lymphadenopathy (fever, swollen glands, swollen extremities). If not removed, the larvae of most species will spontaneously emerge, leaving behind an exit wound.

In cases of **nasal myiasis**, patients may report epistaxis, foul odour, pain, obstruction, discharge, headache, dysphagia, and foreign body sensation. It is characterized by oedematous ulcerated mucous membranes filled with necrotic material and crawling maggots. There may be septal or palatal perforation, nasal bridge erosion, or orbital and facial cellulitis.

**Wound myiasis** (Fig 2) occurs when larvae are deposited on non-viable flesh. It is typically caused by *C hominivorax* and *C bezziana*. These larvae usually do not invade healthy tissue. This preference for dead tissue is the reasoning behind **maggot debridement therapy**. A large number of small maggots consume necrotic tissue far more precisely than it would be possible in a normal surgical operation, and can debride a wound in a day or two. In Western countries, sterile, medical-grade larvae of the green bottle fly are available for use, most commonly for patients with chronically nonhealing wounds, like diabetic foot ulcers.

## Diagnosis

Diagnosis of myiasis is made by **direct visualization of the larvae**.

A full blood count (Hemogram) may show leukocytosis and eosinophilia.

## Treatment

Treatment of myiasis typically involves **direct surgical extraction of the larvae under local anesthesia**.

Second-line options involve suffocation techniques to encourage the larvae to migrate out of the skin through the use of petroleum jelly, liquid paraffin, beeswax, or meat strips.

Third-line treatment with topical or systemic ivermectin may be very helpful with orbital myiasis.

**Proper hygiene of wounds** is very important when treating myiasis and is fundamental for prevention. Debridement, with removal of dead and necrotic tissue, creates an unfavourable environment for the maggots.

# CORRESPONDENCE

**Dr Annie Banda (anniebsiwo@yahoo.co.uk) writes:**

*"I am writing to you from Zambia, Kitwe District. I am a Clinical Officer trained in dermato-venereology from RDTC and a recipient of Community Dermatology Journal. The article on recommended treatment for STDs (CDJ 9:2-6, 2013) was timely as I got it when I was doing STI mentorship for selected health centres. The general outcry was that ciprofloxacin tabs. 500mg stat plus doxycycline 100mg bd for 5 days (as per 2006 Zambian guidelines for gonorrhoea) was not very effective. Patients would return with the same complaint. Is resistance setting in? Obviously this can only be answered after we have some sensitivity patterns. We have had no new guidelines since 2006. Thank you very much for the article.*

*Is it possible to have a hard copy of the book "Dermatological Preparations for the Tropics"?"*

**Reply from the author, Dr Michael Waugh:**

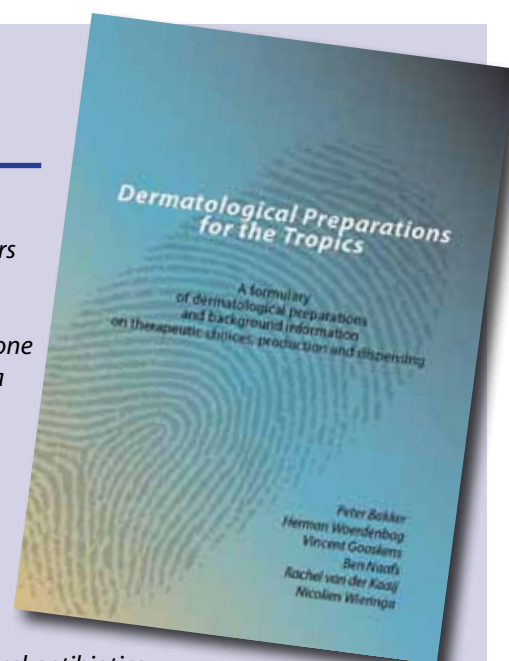
*"Yes, I am afraid that resistance is setting in when it comes to antibiotics and gonorrhoea. It is really very worrying, especially as it affects the easily given oral antibiotics. The International STD community held an enormous conference in Vienna in early July and what I have written as treatment for gonorrhoea, namely ceftriaxone 500mg IM seems to be the mainstay for treatment at present. A good alternative, used successfully in Malawi, is gentamicin 240mg IM with doxycycline 100mg daily for a further 7 days to treat associated Chlamydia; at that dose it would probably prevent the development of syphilis.*

*No doubt it will be only a matter of years before gonorrhoea becomes resistant again. This has all gone on since gonorrhoea became resistant to sulphonamides in around 1942, affecting German and Allied forces, with penicillin resistance later in the 1960's.*

*Widespread use of oral antibiotics, especially without prescription and in too small doses, causes resistance. Attempts at finding a vaccine have been unsuccessful and sooner or later we will have completely untreatable gonorrhoea. Males should use condoms for any act of penetrative sex with anyone other than their regular partner, whether they like it or not! Hope that helps."*

**Reply from Dr Paul Buxton, Editor CDJ:**

*"Thank you for your message. It is encouraging that you found the article useful, and I'm glad it was in time for your mentorship. The book "Dermatological Preparations for the Tropics" is delivered free of charge to health care professionals in developing countries or regions. It can be ordered by e mail to Wewi-fwn@rug.nl, mentioning your name, address, email address, occupation and intended use of the book."*



# East Africa Diploma of Hygiene and Tropical Medicine

Rachael Morris-Jones

**The East African Diploma in Tropical Medicine and Hygiene is a postgraduate certificate awarded by London School of Hygiene and Tropical Medicine. It is a three month, full time short course taught by School staff and colleagues in Tanzania and Uganda. It is designed for doctors planning to work in or who are already working in Africa.**

Around two thirds of the course will focus on tropical infectious diseases, including TB, HIV and malaria. Students will also spend a week in the laboratory learning how to identify parasitic infections and relating this to clinical cases. The remaining third of the course will be spent examining contemporary issues in East African healthcare, including the clinical assessment of infants

and children, maternal health in resource-limited settings and an introduction to clinical epidemiology. The course includes a Dermatology module which encompasses seminars, clinical rounds and a paediatric dermatology needs assessment in a local school.

A proportion of the fees paid by international students will be used to fund low cost scholarships for East African physicians. We will reserve at least a third of the places for local doctors as part of our commitment to building capacity for postgraduate medicine in the region. We think this residential course will be enriched by the academic and social mixing between overseas and African doctors.

**Tuition fees for 2013 are £6,300.**

For enquiries about the content of the East African DTM&H please email [philip.gothard@gmail.com](mailto:philip.gothard@gmail.com) and copy to [shortcourses@lshtm.ac.uk](mailto:shortcourses@lshtm.ac.uk).





## What is the diagnosis? What is the cause? How is it treated?

The diagnosis in these two patients is **Pellagra**. This is a condition that results from cellular deficiency of niacin (nicotinic acid), a water soluble B vitamin, and tryptophan, an essential amino acid which can be converted to niacin in the body.

This condition was first described by Casal in 1735 when he named it Rose's disease. In 1937 Elvehjem et al. reported a cure for pellagra in dogs when he administered nicotinic acid. In the same year Foust et al. reported possible remission of human pellagra by niacin administration.

This condition is common in resource-poor rural areas; it is due to low protein intake and dietary habits that include large amounts of cooked or steamed maize or corn with poor intake of vegetable and fruits. Millet and sorghum has leucine which prevents tryptophan metabolism thus interfering with niacin synthesis. Other conditions that can result in niacin deficiency include chronic alcoholism, steatorrhoea, malabsorption, poor diet due to psychiatric disease and prolonged use of broad spectrum antibiotics. Isoniazid can provoke pellagra by metabolic antagonism of niacin, which it resembles chemically.

Sources of niacin are meat especially red meat, eggs, liver, yeast, milk and cereals. The required daily amount is 10-20mg and this vitamin is absorbed through the intestinal mucosa by simple diffusion.

Endemic areas that have reported this condition are India and some parts of China and Africa.

### Clinical Presentation

The clinical picture is variable, however this condition is mostly known for its classic triad of 3 Ds': Dermatitis, Diarrhoea and Dementia. It has an insidious onset that manifests with weakness, headache, loss of appetite, abdominal pain, mental depression and photosensitivity.

The skin lesions are symmetrical as illustrated in our patients with distinct borders and predominant on sun exposed areas especially back of hands, wrist and forearms (pellagrin gloves), face and neck. These lesions may be pruritic or have a burning pain. The symmetry and clear line of demarcation from normal skin are striking. The facial lesions have a butterfly distribution across nose; there may be associated with nasal and facial seborrhoea. The nose may appear dull red with fine powder (Fig 1, pellagrin nose). The v shaped dermatitis around the lower neck extending to the

sternal region is also characteristic; Casal's collar or necklace.

The lips, tongue and mouth are inflamed and covered with small vesicles and ulcers. The tongue is bright red, swollen, painful (raw beef tongue). Aphthous ulcers and cheilitis is common. The parotid glands may be swollen with excessive salivation.

Gastrointestinal symptoms include pain and profuse watery diarrhea, which is sometimes bloody. The neurological presentation may vary from weakness, anxiety, depression, irritability, dementia, delirium, convulsions. Rarer symptoms include optic neuritis and retinitis.

An entity known as "Pellagra-like syndrome" needs to be considered as this can present with similar dermatological pattern (lichenified, pigmented, dry, scaly lesions over dorsum of hands and feet). The oral mucosa and tongue may show mild signs; diarrhoea and nervous manifestations are however absent.

### Pathology

Early lesions are subepidermal bullae and inflammatory infiltrates in upper dermis. Older lesions are characterized by hyperkeratosis with patchy parakeratosis and a moderate degree of acanthosis with increase in subepidermal melanin. Healing usually takes place centrifugally with the line of demarcation remaining actively inflamed after the center of the lesion has desquamated.

### Treatment

In critical cases 100mg of niacin is administered as an intravenous solution in 25% dextrose. Standard treatment doses ranges from 500-1000mg of niacin orally in divided doses.

### Course

Untreated this condition is slowly progressive and can be fatal in four to five years.

### References

1. Tyring S K, Lupi O, Hergge UR (2005) Tropical Dermatology, Churchill Livingstone, London
2. Canizares O, Harman RRM (1992) Clinical Tropical Dermatology, Blackwell Scientific Publications, Oxford

### KEY WORDS

*pellagra*  
*photosensitivity*  
*nutrition*  
*niacin*

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# Community Dermatology Journal

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The Community Dermatology Journal brings up to date, relevant information on the diagnosis and treatment of skin disease to health workers in developing countries.

It also provides information that can be used to educate health workers and the populations they serve.

It aims to increase awareness of the need for dermatology services in developing countries and contributions are invited from medical workers in them.

It is published twice a year and 7,000 copies of each issue are sent, free of charge, to over 100 countries.

It has an honorary editorial board but is published, printed and distributed professionally, which is the main expense. The journal is supported by voluntary donations and contributions can be sent to the editorial office.

Those taking out a regular subscription by standing order of over £25 per year receive a copy of each issue. The appropriate form can be found on the website - [www.ifd.org](http://www.ifd.org)

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## SCHOLARSHIPS and AWARDS

The **Foundation for International Dermatologic Education** ([www.fide-derm.org](http://www.fide-derm.org)) awards travel grants and scholarships to enable dermatologists from Latin America, Asia and RDTIC at Moshi, Tanzania to attend international meetings.

#### Imrich Sarkany Non-European Memorial Scholarship

The Imrich Sarkany non-European memorial Scholarship is awarded to young dermatologists outside Europe to attend a meeting of the European society for Dermatovenereology.

Further details on [www.eadv.org](http://www.eadv.org) Closing date: April 2014.