Dermatological Society of Singapore

TOP TIPS FROM THE EXPERTS

14 - 16 July 2017
DEAR COLLEAGUES,

ON BEHALF OF THE ORGANIZING COMMITTEE, I WOULD LIKE TO WELCOME YOU TO OUR DSS ANNUAL SCIENTIFIC MEETING. WE HAVE ARRANGED AN EXCITING PROGRAM THIS YEAR TO COMMEMORATE THE 30TH EDITION OF OUR MEETING.

OUR PRE-Congress WORKSHOP IS ON “NAILS”. THIS COMPREHENSIVE 1.5 DAYS’ WORKSHOP INCLUDES A HANDS-ON CADAVERIC NAIL SURGERY SESSION AT ACADEMIA ON FRIDAY 14TH JULY 2017 AND LECTURES ON NAIL HISTOPATHOLOGY AND CLINICAL APPROACHES TO NAIL DISEASES AT THE GRAND COPTHORNE WATERFRONT HOTEL ON SATURDAY 15TH JULY 2017. OUR EXPERT FACULTY INCLUDES PROFESSOR ECKART HANEKE, A/PROFESSOR ADAM RUBIN, DR TAN HIOK HEE AND DR ANTHONY GOON. NAIL DISORDERS ARE COMMONLY ENCOUNTERED IN CLINICAL PRACTICE, AND WE HOPE THAT THE WORKSHOP WILL HELP EQUIP MEMBERS WITH THE SKILLS TO INTERPRET, DIAGNOSE AND MANAGE COMMON NAIL DISEASES.

THE THEME FOR OUR MAIN SYMPOSIUM ON SUNDAY 16TH JULY 2017 IS “TOP TIPS FROM THE EXPERTS”. WE HAVE ASSEMBLED A PANEL OF LOCAL EXPERT FACULTY WHO WILL SHARE WITH US THEIR TIPS TO RECOGNIZING RED FLAGS AND AVOIDING PITFALLS IN THE AREAS OF PEDIATRIC DERMATOLOGY, VENEREOLOGY, HOSPITAL DERMATOLOGY AND THERAPEUTICS. PROFESSOR HANEKE WILL TALK ON “ONYCHOLOGY 2017” FOR THE CHAN HENG LEONG MEMORIAL LECTURE. OUR LOCAL EXPERT FACULTY WILL SHARE THEIR TIPS AND PEARLS ON WOUND CLOSURE AND COSMECEUTICALS IN THE AFTERNOON. THE FINALE OF THE SCIENTIFIC PROGRAM IS THE INTERACTIVE EXPERT PANEL DISCUSSION ON CHALLENGING CASES OF PROCEDURAL AND AESTHETIC DERMATOLOGY. THIS WILL BE A GREAT OPPORTUNITY TO LEARN FROM OUR EXPERT FACULTY, SO DON’T MISS IT!

A/PROF T THIRUMOORTHY WILL BE SHARING WITH MEMBERS IN A SPECIAL SESSION ABOUT THE 2016 SMC ETHICAL CODE AND ETHICAL GUIDELINES (ECEG) AND ITS IMPLICATIONS TO OUR PRACTICE IN AN INTERACTIVE, CASE BASED APPROACH. I STRONGLY ENCOURAGE YOU TO ATTEND THIS LECTURE, AS IT IS IMPORTANT FOR US TO KNOW AND UNDERSTAND THE PRINCIPLES AND PARAMETERS OF THE NEW ECEG. RESIDENTS WILL ALSO HAVE THE OPPORTUNITY TO SHOWCASE THEIR LATEST RESEARCH PROJECTS AND INTERESTING CASES AT THE FREE PAPER SESSIONS.

IN ADDITION TO THE SCIENTIFIC PROGRAM, WE ARE HONORED TO HAVE PROF HARALD GOLLNICK, A/PROF JOSÉ M. MASCARÓ JR AND PROF GOH CHEE LEOK TO SPEAK TO US AT THE PHARMA SYMPOSIUMS SPONSORED BY GALDERMA (PLATINUM SPONSOR), LF ASIA (GOLD SPONSOR) AND NEOASIA (SILVER SPONSOR) RESPECTIVELY.

WE HOPE THAT YOU WILL HAVE A PRODUCTIVE AND ENJOYABLE MEETING!

DR ANG CHIA CHUN
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DERMATOLOGICAL SOCIETY OF SINGAPORE EXECUTIVE COMMITTEE

Term of office 2016/2017

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Honorary Treasurer: Dr Colin Theng Thiam Seng
Committee Members: Dr Ang Chia Chun
Dr Paul Chia Min Wee
Dr Mark Koh Jean Aan
### Pre-ASM Workshop: Nail Surgery Course

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<tr>
<td>1:00 pm</td>
<td>Registration</td>
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<tr>
<td>1:30 pm</td>
<td>Surgical Anatomy, Danger Zones and Local Anaesthesia for Nail Unit Surgery</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>1:50 pm</td>
<td>Pre- and Post-operative Preparation and Counselling</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>2:10 pm</td>
<td>Indications and Techniques for Nail Bed, Nail Matrix and Lateral Longitudinal biopsies</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>2:30 pm</td>
<td>Managing Ingrown Toenails and Performing Intralesional Steroid Injections</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>2:50 pm</td>
<td>Q &amp; A</td>
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<td>3:00 pm</td>
<td>Tea Break</td>
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<tr>
<td>3:30 pm</td>
<td>Advanced Surgical Techniques Masterclass</td>
<td>Prof Eckart Haneke</td>
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<td>4:30 pm</td>
<td>Q &amp; A</td>
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<tr>
<td>4:45 pm</td>
<td>Hands-on Cadaveric Dissection</td>
<td>Trainers:</td>
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<td></td>
<td>o Participants: adjourn to dissection hall</td>
<td>Prof Eckart Haneke</td>
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<td></td>
<td>o Observers: remain in lecture room for live stream of dissection</td>
<td>A/Prof Adam Rubin</td>
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<td></td>
<td>Programme for participants:</td>
<td>A/Prof Chua Sze Hon</td>
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<tr>
<td></td>
<td>• Live demonstration of nail bed, nail matrix and lateral longitudinal biopsies</td>
<td>Dr Suzanne Cheng</td>
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<td>• Live demonstration of surgical techniques for treating ingrown nails and myxoid cysts</td>
<td>Dr Paul Chia</td>
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<td>• Hands-on practice</td>
<td>Dr Ho Sue Ann</td>
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<td>Dr Koh Hong Yi</td>
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<td>Dr Oh Choon Chiat</td>
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<td>Dr Chris Tan</td>
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<td>Dr Aaron Tan</td>
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<td>6:45 pm</td>
<td>Q &amp; A and Close</td>
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## Pre-ASM Workshop:
### Updates on Diagnosis and Management of Nail Disorders

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>8:00 am</td>
<td>Registration</td>
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<tr>
<td>8:30 am</td>
<td>Normal Nail Histology, Regional Differences and Pitfalls in Interpretation</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>8:50 am</td>
<td>Nail Unit Biopsy and Processing Techniques to Optimise Histological Yield</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>9:10 am</td>
<td>Diagnostic Application of Nail Clippings</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>9:30 am</td>
<td>Q &amp; A</td>
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<td>9:40 am</td>
<td>Tea Break</td>
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<tr>
<td>10:00 am</td>
<td>Inflammatory and Infective Diseases of the Nail Unit</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>10:30 am</td>
<td>Tumours of the Nail Unit</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>11:20 am</td>
<td>Q &amp; A</td>
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<tr>
<td>11:30 am</td>
<td>Nails CPC: Challenging Cases From Singapore, Bern and Philadelphia</td>
<td>All</td>
</tr>
<tr>
<td>12:30 pm</td>
<td>Lunch Symposium (Sponsor: LF Asia) Update in the Diagnosis and Treatment of Superficial Cutaneous Mycoses</td>
<td>A/Prof José M. Mascaró Jr.</td>
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</table>

### Updates on Diagnosis and Management of Nail Disorders
(Chairs: Dr Tan Kian Teo, Dr Ang Chia Chun)

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>1:30 pm</td>
<td>Approach to Longitudinal Erythronychia</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>2:00 pm</td>
<td>Approach to Longitudinal Melanonychia and the Pigmented Nail Plate</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>2:30 pm</td>
<td>Approach to Assessing and Treating Onycholysis</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>2:50 pm</td>
<td>Approach to Assessing and Treating Brittle Nails</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>3:10 pm</td>
<td>Q &amp; A</td>
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<td>3:20 pm</td>
<td>Tea Break</td>
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<tr>
<td>3:40 pm</td>
<td>Contact Dermatitis from Nail Care Products</td>
<td>Dr Anthony Goon</td>
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<tr>
<td>4:00 pm</td>
<td>Management of Inflammatory Nail Disorders</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>4:20 pm</td>
<td>Tips on Managing Fungal Nail Infections</td>
<td>Dr Tan Hik He</td>
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<tr>
<td>4:40 pm</td>
<td>Common Paediatric Nail Disorders: Melanonychia and Trachyonychia</td>
<td>A/Prof Adam Rubin</td>
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<tr>
<td>5:00 pm</td>
<td>Tumours of the Nail Apparatus: When to Worry and What To Do</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>5:20 pm</td>
<td>Q &amp; A and Close</td>
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<tr>
<td>5:30 pm</td>
<td>DSS Annual General Meeting (members only)</td>
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<tr>
<td>7:00 pm</td>
<td>DSS Annual Dinner (members only)</td>
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References:

For a period of 12 months
### ASM: TOP TIPS FROM THE EXPERTS

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Speakers</th>
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<tr>
<td>7:30 am</td>
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<tr>
<td>8:00 am</td>
<td>Breakfast Symposium (Sponsor – NeoAsia)</td>
<td>Prof Goh Chee Leok</td>
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<td>Update on the management of common pigmentary disorders:</td>
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<td>The role of picosecond lasers and sun protection</td>
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<td>Recognising Red Flags and Avoiding Pitfalls (Chairs: A/Prof Tan Suat</td>
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<td></td>
<td>Hoon, Dr Lim Kah Beng)</td>
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<tr>
<td>9:05 am</td>
<td>Red Flags in Paediatric Dermatology</td>
<td>Dr Mark Koh</td>
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<td>9:25 am</td>
<td>Ethical and Legal Issues in Adolescents with STIs</td>
<td>Dr Martin Chio</td>
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<tr>
<td>9:45 am</td>
<td>Evidence-Based Practice in Hospital Dermatology</td>
<td>Dr Lee Haur Yueh</td>
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<tr>
<td>10:05 am</td>
<td>Cautions and Precautions When Using Biologics</td>
<td>Dr Colin Theng</td>
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<td>10:25 am</td>
<td>Q &amp; A</td>
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<tr>
<td>11:00 am</td>
<td>Chan Heng Leong Memorial Lecture: Onychology 2017</td>
<td>Prof Eckart Haneke</td>
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<tr>
<td>11:30 am</td>
<td>Free Paper 1 – Studies (Judges: A/Prof Adam Rubin, Dr Regina Lim,</td>
<td>Chair: Dr Tey Hong Liang</td>
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<td>Dr Mark Tang)</td>
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<tr>
<td>12:30 pm</td>
<td>Lunch Symposium (Sponsor – Galderma): Advances in Acne Pathophysiology</td>
<td>Prof Harald Gollnick</td>
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<td>and General Aspects of Therapy including Prevention of Scar Sequelae</td>
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<tr>
<td>1:35 pm</td>
<td>Free Paper 2 – Case Reports (Judges: Dr Derrick Aw, Dr Chris Foo,</td>
<td>Chair: Dr Nisha Chandran</td>
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<td>Dr Tan Kong Chong)</td>
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<td>2:15 pm</td>
<td>The SMC ECEG – What It Means for Dermatologists and Dermatologic</td>
<td>A/Prof T Thirumoorthy</td>
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<td>Practice</td>
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<td>3:00 pm</td>
<td>Aesthetic and Procedural Dermatology (Chairs: Dr Tan Wee Ping, Dr</td>
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<td>Paul Chia)</td>
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<tr>
<td>3:30 pm</td>
<td>Tips for Optimising Wound Closures</td>
<td>Dr Raymond Kwah</td>
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<tr>
<td>3:50 pm</td>
<td>Cosmeceuticals: What a Dermatologist Should Know</td>
<td>Prof Goh Chee Leok</td>
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<td>4:10 pm</td>
<td>Q &amp; A</td>
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<tr>
<td>4:15 pm</td>
<td>Panel Discussion: Challenging Aesthetic/Procedural Dermatology Cases</td>
<td>All</td>
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<tr>
<td>4:55 pm</td>
<td>Presentation of Best Paper Award and Close</td>
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EXPERT FACULTY

Prof Eckart Haneke
Dept Dermatol Inselspital, Univ Berne, Bern, Switzerland; Dermatol Practice Dermaticum, Freiburg, Germany; Centro Dermatol Epidermis, Inst CUF, Porto, Portugal; Dept Dermatol, Univ Hosp Ghent, Gent, Belgium

A/Prof Adam Rubin
Assistant Professor of Dermatology at the Hospital of the University of Pennsylvania, Philadelphia, USA

Dr Tan Hiok Hee
Dermatologist, Thomson Specialist Skin Centre, Singapore

Dr Anthony Goon
Senior Consultant, National Skin Centre, Singapore

Dr Mark Koh
Head and Senior Consultant, Paediatric Dermatology Service, KK Women’s and Children’s Hospital, Singapore

Dr Martin Chio
Head, DSC clinic; Senior Consultant, National Skin Centre, Singapore

Dr Lee Haur Yueh
Head and Senior Consultant, Department of Dermatology, Singapore General Hospital, Singapore

Dr Colin Theng
Dermatologist, The Skin Specialists and Laser Clinic, Singapore

A/Prof T Thirumoorthy
Associate Professor at the Duke-NUS Medical School, Singapore

Dr Raymond Kwah
Dermatologist, Dermatology and Surgery Clinic, Singapore

Prof Goh Chee Leok
Senior Consultant, National Skin Centre, Singapore
VENUE FLOORPLANS
14th July 2017

Academia, Singapore General Hospital

Trade Exhibition
A: Galderma Singapore
B: Reda Instrumente
C: ResearchBooks Asia
**VENUE FLOORPLANS**

15th and 16th July 2017

**Grand Copthorne Waterfront Hotel**

*Important note: Riverfront Foyer and Ballroom are out of bounds on Sunday 16th July 2017*

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**Trade Exhibition**

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<th>Platinum Sponsor:</th>
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<th>A: Apex Pharmacy</th>
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<td>B: NAOS</td>
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<td>L: L’oreal</td>
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<td>I: Color Play Enterprise</td>
<td>N: ResearchBooks Asia</td>
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<td>E: Ego Pharmaceuticals</td>
<td>J: Johnson and Johnson</td>
<td>O: Elogio (15th July only)</td>
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**Abbreviated Prescribing Information**

**Active Ingredient:** Sertaconazole. **Indications:** Cream: Topical treatment of surface skin mycoses, such as dermatophytosis, tinea pedis, tinea cruris, tinea corporis, tinea barbae and tinea manus, Candidiasis and Pityriasis versicolor. Ovule: Local treatment of vaginal candidiasis. Pharmacological Action: New topical broad-spectrum antifungal. It acts against pathogenic yeasts (Candida albicans, C tropicalis, C spp, Pityrosporum orbiculare), dermatophytes (Trichophyton, Epidermophyton and Microsporum) and gram-positive bacteria (Staphylococcus and Streptococcus). **Dosage:** Cream: Apply the cream one or two times every day mildly and uniformly on the lesion to embrace 1 cm of sound skin around the affected area. In general, four weeks of treatment is recommended to ensure a complete clinical and microbiological healing and prevent the appearance of relapses. Ovule: One vaginal suppository in the evening, to be inserted deeply into the vagina, preferably while lying down. If symptoms persist, repeat with a second vaginal suppository seven days after the first insertion. **Contraindications:** Do not administer in the event of any known allergy to the substance or to any of the constituents of the excipient. Ovule: Concurrent use of contraceptive diaphragm. **Undesired effects:** Safety in local treatment is excellent; no toxic or photosensitive effects have been observed. Reports have been received of some slight cases of a local transitory erythematous reaction during the first few days of treatment; it was not necessary to discontinue treatment in those cases. **Presentations:** 2% Cream, 300mg Vaginal Suppository

Full Prescribing Information is available upon request. For Healthcare Professionals Only.

**References**


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Manufactured by: Zalain sertaconazole
Normal Nail Histology, Regional Differences and Pitfalls in Interpretation

A/Prof Adam Rubin

In order to understand pathologic changes in the nail, we will first need to be familiar with the normal state of affairs regarding the histology of the nail unit. In this lecture, we will examine the normal anatomy of the different anatomic areas of the nail unit. We will discuss how the normal appearance of the nail structures change depending on the specific anatomic area. Additionally, we will discuss how variations in the anatomy can occur, and the correct interpretation of them in context of other findings.

Nail Unit Biopsy and Processing Techniques to Optimise Histological Yield

A/Prof Adam Rubin

In order to obtain the most helpful information from a nail biopsy specimen, it is essential to submit enough tissue from the correct anatomic site of the nail unit. In this lecture we will review basic and advanced biopsy techniques, and optimal submission of these specimens to the histology lab. When a good sample is obtained, and submitted in the best fashion to the laboratory, optimal patient care will occur.

Diagnostic Application of Nail Clippings

A/Prof Adam Rubin

Clipping the nails is a common part of routine grooming. However, such specimens submitted from a dermatology office can yield a wealth of information, with practically no morbidity. In this lecture we will review the diagnostic applications of nail clippings, and explore how such findings can help in the management of patients. There is more information that can be obtained from nail clippings than one would expect!
Inflammatory and Infective Diseases of the Nail Unit

A/Prof Adam Rubin

Inflammatory and infective diseases of the nail unit are commonly encountered in dermatologic practice. However, when changes are limited to the nails, making a specific diagnosis can be difficult. In this lecture we will discuss the histologic features and corresponding biopsy specimens which can help establish a specific diagnosis for these disorders and start the patient on the road to improved nails.

Tumors of the Nail Unit

Prof Eckart Hanake

Virtually all cells occurring in and around the nail unit are able to develop tumors, mostly benign, much more rarely malignant. It is convenient to classify them according to their tissue of origin into epithelial, fibrous/fibroepithelial, vascular, myxoid, muscular, cartilaginous, osseous, neurogenic, haematogenous, histiocytoid, melanocytic, and metastatic. Not all tumours are true neoplasms, but are defined as so-called pseudotumours. It is beyond the scope of this abstract to give a complete list of all more than approximately 100 different non-melanocytic benign nail tumours.

The spectrum of malignant non-melanocytic tumours affecting the nail unit is relatively small although single cases of many more malignant non-melanocytic neoplasms have been described. The most common malignant tumours of the nail unit are Bowen disease, invasive squamous cell carcinoma, and melanoma, Carcinoma cuniculatum of the nail has been observed several times. Basal cell carcinoma is very rare. Onychocytic carcinoma and malignant proliferating onycholemmal cysts are exceedingly uncommon.

The spectrum of melanocytic lesions affecting the nail unit corresponds almost to that of the skin, except for the lack of lesions due to life-long sun exposure and seborhoeic keratoses. However, as most nail melanomas begin with a longitudinal melanin pigmentation they should always raise concern when they appear in an adult.

The differential diagnosis of all melanotic nail lesions comprises a number of exogenous and endogenous causes, such as subungual haematoma, frictional haematoma, fungal melanonychia and bacterial causes such as enterobacteria-induced deposition of metal sulfides or to pyocyanin from Pseudomonas aeruginosa.
**Approach to Longitudinal Erythronychia**

A/Prof Adam Rubin

A red streak in the nail can represent both benign and malignant entities. In this lecture we will cover the potential diagnoses which can be represented by this clinical sign, and how to counsel the patient. Additionally, we will cover potential biopsy techniques when this sign is present on a single nail.

**Approach to Longitudinal Melanonychia and the Pigmented Nail Plate**

Prof Eckart Hanake

Longitudinal melanonychia and other melanin pigmentations of the nail plate are of major concern as they are the most frequent sign of ungual melanoma.

When facing a longitudinal melanonychia or pigmented nail, the first problem is to define the nature of the pigment. Human melanin is finely granular and can be demonstrated using the argentaffin reaction of Fontana-Masson. A clipping from the free margin of the nail may be submitted for histopathology and stained accordingly. The melanin granules are seen as round black dots. Fungal melanin is diffuse and not argentaffin. Blood forms big lakes under the nail and does not reach into the free nail margin. However, its nature may be confirmed by punching a hole into the nail over it and scraping the pigment into a little test tube, adding a few drops of water, agitating a bit and immersing a Hemostix® into it: Blood gives a positive pseudo-catalase reaction. One word of caution: do not cut into the living tissue with your punch! A bleeding tumour is also positive. Bacterial pigment is on the nail plate surface and can be scraped off. Pseudomonas aeruginosa pigmentation reveals a greenish tinge.

Second is the width and colour homogeneity of the melanonychia. Although it was claimed that bands under 5 mm in width are not suspicious this is not true: all melanomas start as small lesions giving rise to a very narrow band. However, from a certain width on, asymmetry and irregular banding may be observed in melanomas. Functional melanonychia is symmetrical and its margins usually fade out; particularly in racial pigmentation they may be multiple.

Third is the age of the patient. Newborns and babies have benign melanonychias, most commonly due to lentigo or naevus of the matrix. In children and adolescents, the brown streak is usually benign. In adults under 30 years it is probably benign, in those over 30 years it is suspicious. An acquired melanonychia in a person over 40 years of age is probably malignant and in those over 50 years is usually malignant. This is a general rule and must not be taken absolutely as even children were observed to have nail melanoma.

Fourth is the localization: Thumb and great toe nails are most the common sites of ungual melanoma followed by middle and index fingers. The other fingers and the lesser toe nails are less suspicious.

Fifth is the skin type. Although in absolute numbers nail melanomas are roughly equally common among different skin types and races their percentage is higher in darkly pigmented individuals and Asians. The problem of melanoma recognition in pigmented races is that nail pigmentation is rather the rule than an exception. One has to look for a brown to black band that stands out against the others – the ugly duckling sign.

Sixth is potential periungual pigmentation, called Hutchinson sign. This is pathognomonic for ungual melanoma. Dermatoscopy may reveal tiny spots of pigmentation not seen with the naked eye. This micro-Hutchinson sign is also a sign of melanoma. In contrast, a dark streak may shine through the cuticle, which is called a pseudo-Hutchinson sign; it simply reflects the deep brown colour of the structure beneath the partially transparent cuticle.
Seventh is nail dystrophy in association with a pigmented band. Even the slightest dystrophy is seen as a very strong hint at melanoma of the matrix that may have led to epithelial consumption.

Eighth is the shape of the melanonychia. When it is wider proximally than distally this is proof of a lesion that grows in width, which is not a feature of a lentigo or naevus except in very young children. Bands that are darker proximally may indicate growth of the lesion in longitudinal direction.

Ninth is family history of malignant melanoma at any site of the body.

Tenth are dermatoscopic criteria such as regular vs. irregular banding both longitudinally as well as transversely, asymmetry of the colour, microHutchinson sign. However, it has to be stressed that the gold standard of diagnosis is histopathology and that dermatoscopy is an aid, but not absolute. Further, both the naked eye as well as the dermatoscope only allows one dimension of the tumour product – pigment – to be evaluated, as the lesion is not amenable to direct inspection. This can only be overcome by direct matrix dermatoscopy.

The most important diagnostic measure is to think of nail melanoma – once the consulted physician recognizes the possibility of nail melanoma all other measures will follow. Dermatoscopy may aid in the diagnosis but in case of doubt a biopsy has to be performed. In early lesions, it can be notoriously be difficult to make the correct diagnosis and special stains and immunohistochemistry may be necessary.

In summary, the diagnosis of nail melanoma is not particularly difficult – think of melanoma and you will probably not miss the diagnosis.

### Approach to Assessing and Treating Onycholysis

**A/Prof Adam Rubin**

Onycholysis is a common presenting complaint in the nail clinic, and it can be difficult to treat. In this lecture we will review the evaluation of onycholysis, and a multifaceted approach to treatment which can help lead to improvement in the appearance of the nails, and satisfaction from your patient.
Approach to Assessing and Treating Brittle Nails

Prof Eckart Hanake

Brittle nails are a very common and mostly a very stubborn problem. Although literature lists a large number of causes for nail fragility most cases remain aetiologically unclear – thus idiopathic.

Roughly 20% of the population have brittle nails, women double as frequently as men. Most patients with the complaint of brittle nails are females over 30 years of age. They experience breaking of their nails when they are longer than 1 – 2 mm, which they feel as very embarrassing. Two clinical manifestations are seen: onychoschizia and onychorrhexis. The former is light and electron microscopically characterized by decrease of cellular adhesion of onychocytes. Onychorrhexis is thought to be due to matrix disturbances with impaired nail formation.

The first step is to rule out any particular known potential cause, such as iron and zinc deficiency, haematological disease (odds ratio 4.6), vitamin deficiencies, hypothyroidism, malnutrition, low body weight due to crash diets, anorexia and bulimia, gastric by-pass surgery, severe liver and kidney disease, pregnancy, treatment with cytotoxic drugs and inhibitors of epidermal growth factor receptor, onychomycosis, any dermatosis affecting the nail such as lichen planus, eczema, trachyonychia or nail psoriasis, sulfur deficiency syndromes, some rare genetic syndromes affecting the nails, acrokeratosis paraneoplastica and glucagonoma syndrome, and many more factors. All of them indicate that systemic illness may have an effect on nail production and nail health. However, as soon as a manifest cause has been established this can be treated and should result in restoration of normal nails.

The problem patients are those that have idiopathic nail fragility. Questioning often reveals repeated moisture contact leading to hydration and dehydration of the nails leaking out the lipoproteins of the nail that act as a cement for the onychocytes. Further, women having professional manicure have a 3.2 times higher odds to develop brittle nails. The frequency of professional manicures was associated with the likelihood of having brittle nails as they often use very aggressive chemicals. Frequency of hand moisturizer use was significantly associated with nail brittleness (95% confidence interval 1.35, 32.10). Family history was significantly associated with the likelihood of having brittle nails (95% confidence interval 1.65, 21.11).

The treatment of brittle nails is a challenge. Most women do not accept that this is – at least in part – a self-inflicted problem. The most important measure is to change the behaviour: no moisture contact (kitchen work, manicure etc.), applying protective ointments prior to any potential water contact. Nail balms overnight may be beneficial. Biotin was said to improve the nail quality, but own experience is rather disappointed; further, the normal biotin dose needed is not known, and probably super-vitamin doses such as 10 mg per day have to be given. One study found choline-stabilized orthosilicilic acid beneficial. Gelatin and a variety of vitamins are advertised for brittle nails but there are no controlled studies showing better results than placebo.

In summary, brittle nails are frequent and difficult to treat.

Contact Dermatitis from Nail Care Products

Dr Anthony Goon

Nail care products include nail enamels (varnish/polish), nail enamel removers, cuticle removers and artificial nails. Tosylamide formaldehyde resin or toluene sulfonamide formaldehyde resin is the most common cause of nail enamel allergy. The strong solvents used in nail enamel removers include acetone, alcohol and amyl, butyl, or ethyl acetate. These may irritate and dry nail plate and surrounding skin. Alkaline chemicals in cuticle removers may cause ICD. Artificial nails may lead to (meth)acrylate allergy. Treatment requires complete removal & avoidance of the offending agent.
Management of Inflammatory Nail Disorders

A/Prof Adam Rubin

Once a diagnosis of an inflammatory nail dermatosis has been established, a therapeutic regimen is then instituted. In this lecture we will explore treatment options for common nail unit disorders including nail unit lichen planus, nail unit psoriasis, as well as paronychia.

Tips on Managing Fungal Nail Infections

Dr Tan Hiok Hee

Onychomycosis is a fungal infection of the nail that can cause disfigurement, pain, and may increase risk for soft tissue bacterial infection in immunocompromised patients. Most infections are caused by dermatophytes (tinea unguium), particularly Trichophyton rubrum, and the focus of this talk will be on medical therapy for this.

Contributing factors causing this disease are occlusive footwear, repeated nail trauma, and concurrent disease such as diabetes, impaired circulation, and immunosuppression, as well as increasing age and hyperhidrosis. Tinea unguium is associated with tinea pedis is up to one-third of cases.

Current options for onychomycosis include:

i) Oral antifungal drugs such as terbinafine, itraconazole, and fluconazole. Oral therapy is the gold standard for treatment of onychomycosis, but can be limited by drug interactions, particularly when patients are on statins.

ii) Topical medications such as tioconazole, amorolfine and ciclopirox, and newer agents such as efinaconazole, tavaborole and luliconazole.

iii) Physical interventions, which include physical and chemical debridement of the nail, and laser therapy, for which strong current evidence is still lacking.

The objective of this talk is to provide a brief, up-to-date evidence based review on management of onychomycosis.
Common Pediatric Nail Disorders: Melanonychia and Trachyonychia

A/Prof Adam Rubin

In our referral pediatric nail practice, the most common problems encountered are melanonychia and trachyonychia. Both can be difficult to manage, and each diagnosis has its own specific challenges. In this lecture we will explore the evaluation and management of both disorders and outline plans in order to provide superior care for your pediatric nail patients.

Tumors of the Nail Apparatus: When to Worry and What to Do

Prof Eckart Hanake

Although most nail tumors are benign the number of different malignant ungual neoplasms is not negligible. However, also some benign nail tumors may cause concern as they can permanently damage the nail.

It is self-evident that all malignant nail neoplasms are to worry although to a different degree. Bowen disease is an in situ carcinoma. It should be diagnosed as early as possible in order to prevent major nail surgery interventions. All verrucous lesions on the first three fingers of a man over 40 years of age should raise suspicion and requires a diagnostic biopsy to make the diagnosis. Long-standing verrucous lesions under and around the nail are a must for a biopsy. Once the diagnosis is established microscopically controlled surgery is indicated to completely remove the lesion.

When a long-standing undiagnosed ungual lesion develops an elevation, starts oozing and is crusted this is probably an invasive Bowen carcinoma. Again a diagnostic biopsy is a must in order to confirm the diagnosis and evaluate the depth of tumor invasion. Local excision with three-dimensional margin control is the treatment of choice.

Onycholysis with oozing may indicate a subungual squamous cell carcinoma or amelanotic melanoma. The overlying nail plate should be slipped away to allow the lesion to be inspected. It is often a slightly raised red denuded plaque, sometimes partially covered with a crust. This should be submitted for a diagnostic excision. This allows measurement of tumor thickness, mitotic rate, evaluation of the tumor margins, etc. In case of squamous cell carcinoma, a re-excision may be performed. If the tumor was deep but not touching the bone the dorsal lamella of the distal phalangeal bone may be resected. Amputation is only indicated in case of bone invasion.

Amelanotic melanoma of the nail bed is treated according to the valid guidelines although these do not specifically tell us what to do for nail melanomas. My personal opinion is that amputation does not improve the prognosis: either it is not necessary as the tumor could be completely resected, or it is too late anyhow as there is already tumor dissemination. However, this is a highly controversial issue.

All acquired melanin pigmentations in adults are to worry. Every attempt has to be performed to reach a reliable diagnosis. Most general pathologists are not familiar with the histopathological diagnosis of early subungual melanoma, and the clinician is challenged to insist on further special stains, immunohistochemistry and consultation with nail melanoma experts. Although we always try to avoid overtreatment of benign lesions morphology may be bland for a long period of time despite the lesion is already biologically malignant. This is also well known for other acral melanomas. As amputation is not necessary in early in situ melanoma functional surgery with preservation of a completely functional digit is the rule.
Aggressive digital papillary adenocarcinoma, although sometimes called aggressive digital papillary adenoma, has a high risk to metastasize. All lesions of the fingertip causing a bulbous swelling have to be seen as such a neoplasm until otherwise proven.

Many benign tumors tend to grow relentlessly and may cause permanent nail dystrophy. Therefore, a secure diagnosis has to be reached in order to be able to treat the lesion according to its expected growth pattern. E.g., multiple Koenen tumors soon destroy the nail when not treated early. When they are still few in number they can be excised with a pointed scalpel that is held parallel to their longitudinal axis and cut down to the bone. When there are already many fibrokeratomas the nail is avulsed, the matrix and nail bed planed with a #15 scalpel blade and the base of the tumors gently cauterized or desiccated. Superficial acral fibromyxoma can reach a considerable size. The diagnosis can only clinically be suspected; however, it should be extirpated to avoid growth to a very large mass.
JOIN US FOR OUR BREAKFAST SYMPOSIUM ON 16 JULY 2017!

Topic: Update on the management of common pigmentary disorders: The role of picosecond laser and harmful effects of visible light.

Speaker: Prof. Goh Chee Leok
Senior Consultant
National Skin Centre, Singapore

Venue: Waterfront Ballroom

Time: 8.00am – 9.00am

Beauty. Confidence. Success.

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Priding itself as the setter for high standards in aesthetic technology, NeoAsia recognizes the need for aesthetics practitioners to maintain their art at its peak. Combining cutting-edge technologies with exceptional relationships and premier services, NeoAsia continues to keep their clients at the forefront of aesthetic trends, keeping their fingers on the pulse of global aesthetic market and bringing only the finest technologies that ensure safety and optimal results, all through science.
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1. Early onset of improvement
   36% of patients enjoyed marked improvement within the 1st week of treatment

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4. Gentle on face & body

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2. Anne W. Lucky. Effect of desonide ointment, 0.05%, on the hypothalamic-pituitary-adrenal axis of children with atopic dermatitis. Therapeutics for the clinician 1997; Vol 59
4. Usage on face is up to doctor’s discretion
5. Based on studies with paediatric subject as young as 10 months and for up to 6 months

(RCB No.: 200106927M)
Red Flags in Pediatric Dermatology  
Dr Mark Koh  

Most pediatric dermatoses are common, mild and non-life or non-function threatening. Although uncommon, a handful of skin conditions presenting in infancy and childhood can lead to possible mortality and morbidity (e.g. genodermatoses, PHACES syndrome). Skin signs may also be the earliest presentation of more generalized, systemic disease (e.g. primary immunodeficiency, inborn errors of metabolism). This lecture will discuss several common presenting cutaneous problems in infants and children, and to discuss the differential diagnoses, including rare but severe conditions, clues to diagnosis, evaluation and management of these conditions.

Legal & Ethical issues in managing young persons in an STI clinic  
Dr Martin Chio  

Managing youth who seek sexual health services may be fraught with legal & ethical issues due to their vulnerability & perhaps immaturity. In Singapore, various sections of the Penal Code address this myriad of unique situations. Laws on “sexting”, a relatively new phenomenon, will be highlighted with reference to the Children & Young Persons Act. Medical practitioners should be competent with the use of Gillick competency & how the Fraser guidelines should be applied in the management of STI cases in their clinics. Ethical issues in the form of case scenarios will be presented for illustration & open discussion, not always with concrete answers but perhaps more questions for introspective reflection. In the unfortunate situation of medical litigation, practitioners should be familiar of how the courts have moved away from Bolitho/Bolam & precedence has been set in applying a modified Montgomery test.

Evidence-Based Practice in Hospital Dermatology  
Dr Lee Haur Yueh  

Evidenced-based dermatology involves the use of high-quality evidence in the care of individual patients with skin diseases. In this talk, recent updates of dermatological management, particularly in the hospital setting will be shared. Challenges, pitfalls and benefits of evidence-based medicine will be illustrated through various examples.
Cautions and Precautions When Using Biologics

Dr Colin Theng

Biologic agents are new treatments for psoriasis which target specific immune mediators. They have revolutionized the treatment of psoriasis, and are highly effective treatments for both psoriasis and psoriasis arthritis. However, as they block specific immune pathways, there are concerns on the safety of the biologics. Data from the clinical trials and registries have so far been reassuring. Biologic registries give us an understanding of the real world safety and efficacy and results from the registries such as The German Psoriasis Registry PsoBest have shown no major safety signals.

When using biologics, it is important to screen for infections and malignancy risks prior to starting the biologic therapies. There some biologic specific contra-indications eg. Avoiding anti-TNF alpha inhibitors in individuals with severe NYHA class III/IV cardiac failure and in individuals with demyelinating disease. Caution should be exercised also with the use of secukinumab or ixekizumab in individuals with inflammatory bowel disease.

A system should be place for the monitoring of the side effects of biologic therapies. This includes a thorough examination of the history, physical examination and clinical tests for potential infective and malignancy risks. This will help to ensure the safe use of biologics in clinical practice.

Chan Heng Leong Memorial Lecture: Onychology 2017

Prof Eckart Haneke

The science of nails has made considerable progress in the last years. Dermatologists, dermatopathologists, geneticists, molecular biologists, dermatological surgeons, mycologists and many more contributed to the knowledge of nails and their disorders.

Nails are relatively frequently affected alone and in complex genetic syndromes, particularly the group of ectodermal dysplasias. Some of them could be defined by molecular biology. Their number is growing permitting us to coming closer to potential genotherapies. Some bullous epidermolyses as well as pachyonychia congenita types have been elucidated on a molecular basis and small nucleic acid molecules are being developed. Although not specifically being a nail disorder the child naevus can now be treated systemically and even topically with cholesterol plus a statin. The nu-/nu- mouse is due to a FoxN1 deficiency and has been found to have a human counterpart with the nails being as affected as the hair, but with the difference that heterozygous carriers exhibit nail, but no hair changes. Anonychia can be due to various factors, for example a defect in the gene coding for R-spondin4. Different mutations in the frizzled gene FZD6 on chromosome 8q22.3 cause autosomal recessive isolated nail dystrophy. Both dominant as well as recessive autosomal leukonychia, also called porcelain nails, are due to mutations of the phospholipase C delta (PLCD) 1 gene on chromosome 3p22.2. A new simplex type of epidermolysis bullosa, called nails-only epidermolysis, is the result of a point mutation in keratin 5. In addition to connexin mutations, both autosomal dominant and recessive HOXC13 mutations are known for hair and nail ectodermal dysplasia. The double little toenail is probably an autosomal dominant trait. First described in 1969, later erroneously taken as a feature of Han Chinese, it occurs in all races and both genders. Its cause is a tiny bone spur on the distal end of the terminal phalanx of the 5th toe.

Nail growth disturbances are frequent. Many patients complain of slow growing, soft, fragile nails. Application of 5% minoxidil solution on the nails increased finger nail length from 3.91 to 4.27 mm (p 0.003). No systemic side effects were observed. The potential for certain nail disorders including brittle nails remains to be studied.

The prevalence of scabies increases again. Nail involvement is very frequent in crusted scabies, but otherwise rare. Therefore it is often overlooked and may be the source of recurrences and endemics, particularly in homes for the elderly and handicapped. Treatments is by brushing the hands and nails with a scabicide like a surgeon or remove nails atraumatically with 40% urea paste and treat systemically with ivermectine.
Onychomycosis is said to be the most frequent nail disease. Although highly active antifungal drugs for topical and systemic treatment are available their cure rate lags behind all expectations. Thus the search for new agents and therapeutic modalities continues. A promising new drug appears to be the new tetrazole V-1161 that exhibits a strong activity to fungal cytochrome 450 CYP51 with low affinity to human CYPs. A recent study showed a cure rate of 32 – 42% with 300 and 600 mg daily vs. 0% with placebo. Lasers are the new hype. However, FDA approval was only for “temporary increase in clear nail in onychomycosis”. The mechanism of presumed action is still unknown although there are plenty of speculations: bulk heating of the nail is highly improbable as most dermatophytes require over 50°C for more than 10 min to be killed – a temperature that is absolutely intolerable; selective photothermolysis is not likely as most fungi do not have a pigment to be a selective target; photomodulation through an effect on Fe- and Cu-containing cytochrome C oxidase by low-level non-thermal lasers is purely speculative; and immunologic events have never been proven. Even though some reports on a few patients claimed 100% cure rate, the accompanying figures did not show normal nails.

Photodynamic therapy is another physical modality; however, there is no specific photosensitizer for fungal nail infections and there is also no FDA approval.

Nail psoriasis is still a therapeutic challenge although it usually reacts well to systemic treatment when the skin lesions respond. The number of biologics used for nail psoriasis is vast. The latest one is ixekizumab, a new IL-17A inhibitor. Another new drug is the janus kinase inhibitor tofacitinib, which is also a very promising substance for the treatment of alopecia areata. Apremilast is a new small-molecule phosphodiesterase 4 inhibitor with good activity on nail psoriasis.

Ingrown nails are still a matter of concern. A recent study found a high impact on the quality of life with a DLQI of 8.3 as compared to 7.9 for atopic eczema, 6.5 for contact dermatitis and 4.6 for alopecia areata. New articles about their treatment appear on a monthly rate. The super U technique of Ival Perez Rosa was re-evaluated and found to give good results although the postoperative morbidity is very pronounced and healing takes 6 weeks or more. Bichloroacetic acid has been added to the list of chemical agents for selective matrix horn cautery. Thioglycolic acid 5% was used to hasten the process of nail flattening for the conservative treatment of pincer nails with orthonyx braces.

Nail pigmentation is a potential first sign of ungual melanoma, particularly in individuals of Asian and African descent. Although often claimed to be a rare variant of acral melanoma nail melanoma is not rare: They make up for 1.5 – 2.5% of all melanomas in light-skinned Caucasians; however, all nails together are much less than 1% of the body surface. Again, within the nail unit, three quarters or more arise from the matrix, which represents approximately 25 – 30% of the subungual structure. In persons with dark complexion, cutaneous melanoma is rare and acral melanomas make up for over 20% although in absolute numbers they are roughly of the same frequency. Approximately 1% of the Japanese population has longitudinal melanonychia, which is very low compared to many other Asians (?). The nature of the pigment is relatively easy to determine: human melanin is finely granular, forms a longitudinal band that reaches into the free nail margin and cannot be scraped off the nail. In light-skinned individuals over 35 years, any acquired longitudinal melanonychia is suspicious and requires further diagnostic measures.

Dermatopathologists have identified a number of new tumours specifically arising from nail tissue. Onychomatricoma, onychocytic matricoma, onychocytic carcinoma and onychopapilloma arise from the nail matrix whereas onycholemmal horn, onycholemmal cysts, proliferating onycholemmal cyst, proliferating onycholemmal tumor, malignant proliferating onycholemmal cyst and onycholemmal carcinoma derive from the nail bed. The painful subungual tumours of incontinentia pigmenti are histologically indistinguishable from proliferating onycholemmal tumour, but have a different symptomatology, which is also the case for subungual keratoacanthoma that shares many morphological features with the former lesions.
The SMC ECEG 2016 – What it means for Dermatologists and Dermatologic Practice

A/Prof T Thirumoorthy

The Singapore Medical Council (SMC) Ethical Code and Ethical Guidelines (ECEG) 2016 was published on 13th September 2016 and came into force on 1st January 2017. It is important to understand the Why before venturing into the What of the ECEG. The SMC exists as a statutory board under the Ministry of Health (MOH) by virtue of the Medical Registration Act. One of its main functions is to determine and regulate the conduct, the ethics, the standards of practice and the competence of registered medical practitioners. The SMC ECEG is the extended arm of the SMC’s core functions of regulation.

The SMC ECEG serves to set the standards for the professional performance and conduct of the medical profession in Singapore. Being a regulatory instrument, any deliberate departure or failure to meet the standards set, would lead to disciplinary proceedings and punitive actions.

The entire Ethical Code (EC) is couched in the language of “you must”. The words “you must” in the EC and EG means that there exists an overriding duty and that the principles and standards must be upheld unless circumstances prevent. It is not clear in the EC or EG what these circumstances that are professionally acceptable for not upholding the duty or standard, other than to conclude that it is a matter of peer review in a disciplinary process.

All aspects of the SMC ECEG are thus of vital and relevant to the practicing dermatologists. There are several domains in the EG that are new and set explicit standards that directly impact dermatologic practice.

There have been seismic changes in the standards of obtaining a valid consent, both in law and the ECEG of which dermatologists need to review their current practices. As dermatology involves patients from pediatrics to geriatrics, the sections on Consent, Caring for minors and Caring for persons with diminished capacity are essential to appreciate and where necessary make changes to current practice. Explicit consent is necessary for Telemedicine and on Visual and Audio recordings and documentation. There are comprehensive standards on Medical records, which require deeper study.

The sections on Aesthetic practice and untested procedures contain important standards on consent and assessment before therapy. For dermatologists in private practice the sections on Fees for Service and Advertising are important to understand so as not to run risk of disciplinary actions.

In concluding it is important to quote from the Preamble of the SMC ECEG “It is imperative for doctors to internalize the ethical responsibilities under the ECEG and to discharge such responsibilities in accordance with its underlying spirit and intent.” In simple words reading and understanding the ECEG alone is inadequate.

Finally as part of professional risk management, all dermatologists need to know on how to respond appropriately and effectively in dealing with complaints to the SMC.

Tips for Optimizing Wound Closures

Dr Raymond Kwah

Regardless of the complexity of the surgery, patients often judge the skills of the surgeon by the cosmetic appearance and the scarring resulting from the surgery. Every surgical wound heals with a scar. The final appearance of the scar depends on wound factors, patient factors and technical factors. Patient and wound factors are often outside the control of the surgeon. However, it is still important for the surgeon to optimize some of these factors eg. Smoking and medications. Technical factors are completely within the control of the surgeon and include the planning of incisions, care of tissue handling, adequacy of debridement, sutures used, method and tension of wound repair, types of wound closure, the period of time that sutures are left in situ, and postoperative scar management. The aim of this presentation is to highlight some of these factors.
Cosmeceuticals: What a dermatologist should know

Prof Goh Chee Leok

Cosmeceuticals represent a marriage between cosmetics and pharmaceuticals. Cosmeceuticals are the fastest-growing segment of the personal skin care industry. As the baby boomers ages, the demand for cosmeceuticals increases. Unlike cosmetics, cosmeceuticals contain ingredients that influence the biological function of the skin. Cosmeceuticals are promoted to improve the appearance of the skin by delivering nutrients to the skin. Cosmeceuticals typically claim to improve skin tone, texture, and radiance, while reducing wrinkling. Some are formulated to clear skin pigmentation and improve physiological skin disorders e.g. acne vulgaris. Patients are attracted to resort to use cosmeceuticals as they are readily available over the counter and saves on expensive medical consultations. Cosmeceuticals can be promoted and advertised unrestricted without any need to show scientific supporting evidence as they are not classified as drugs. But all have the potential to cause adverse side effects.

Dermatologists practicing aesthetic dermatology should be familiar with the cosmeceuticals which are commonly used in their country to better understand needs of their patients and be able to advise them on the functions and efficaciousness of these cosmeceuticals. Some can be used as adjunctive treatment when conventional medical treatment fails. They have become an important adjunct for the treatment of photogeing, skin pigmentation and acne vulgaris as many cause less unwanted effects of topical agents used in conventional medical treatment e.g. tretinoins.

In general, vitamins, herbs, oils, and botanical extracts are often found in cosmeceuticals in Asia. The common botanicals pertaining to cosmeceuticals include teas, soy, pomegranate, date, grape seed, pycnogenol, horse chestnut, German chamomile, curcumin, comfrey, allantoin, and aloe; only green and black tea, soy, pomegranate, and date have been studied to the extent that clinical trials for the treatment of parameters of extrinsic aging have been published. Other ingredients include anti-oxidants, retinoid derivatives and skin whiteners. The active ingredients among the skin whiteners include tyrosinase inhibitors, melanin transfers blocker and skin exfoliants but the most important components of cosmeceuticals are probably the sunscreens.

The effects of these ingredients on skin physiology and their applications will be discussed.
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Automated Delineation of Lesional Borders in Dermoscopy: Towards an Automated Deep Learning Analytical Platform for the Detection of Melanoma

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Introduction and Objectives: Dermoscopic features and the algorithms used are numerous, lengthy and complex for routine clinical practice. New imaging modalities have been developed to detect melanoma but these utilise costly and bulky devices and are not superior to dermoscopy. These devices have low specificities and therefore result in unnecessary biopsies. We aim to develop a novel deep learning model utilising existing dermoscopic knowledge as a platform for the enhanced detection of melanomas. The first step in this process is to automatically demarcate the borders of the examined lesions.

Materials and Methods: In this study, a set of images was manually annotated to define the borders of the lesion and used to train a deep learning computer model. Using the learned data, this model was able to apply this to independently map out the borders of individual lesions. We tested our model on 150 images in the dermoscopic dataset from the International Skin Imaging Collaboration (ISIC) 2017 Challenge “Skin Lesions Analysis towards Melanoma Detection” which represents the latest competition in skin imaging.

Results: Our proposed model scored a Jaccard Index of 0.717. This value ranges from 0 to 1 and is a measure of the accuracy of border mapping for the individual lesion, with a higher value implying a better match. This was comparable to U-Net which is an established model used in biomedical image segmentation.

Conclusions: Our developed model was able to perform comparably to other deep learning modelling software to define lesion borders. This represents proof-of-concept for our proposed software. Building upon this, we will be able to further develop our software to identify dermoscopic features to more accurately differentiate malignant from benign melanocytic lesions.

UVA1 Phototherapy in Asian Skin: A Review of 159 Cases in Singapore

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Ultraviolet A1 (UVA1) phototherapy has been used to treat many inflammatory dermatoses. Reports regarding its efficacy and safety have largely originated from Europe and the United States in predominantly Caucasian populations but few published studies have been conducted in Asian populations. We performed a 4-year retrospective review of all patients undergoing UVA1 phototherapy at the National Skin Centre in Singapore from January 2007 to January 2011. 159 patients were included in our study comprising 103 patients with hand and feet eczema, 21 patients with atopic dermatitis, 17 patients with scleroderma, 4 patients with psoriasis and the remaining patients with miscellaneous dermatoses. Of these patients, 47.6% of patients with hand and feet eczema had good response after 10 sessions, increasing to 75% after 20 sessions and to 84.6% after 30 sessions. There was no relation between response rates and final dose of phototherapy. 47.6% of patients with atopic dermatitis had good response after 10 sessions with an increase to 66.7% after 20 sessions. After 30 sessions, all the 3 remaining atopic dermatitis patients experienced good response. Treatment response was lower with atopic dermatitis patients who received lower dosage of phototherapy, though this did not reach statistical significance. For patients with scleroderma, only 11.8% and 10% had good response after 10 sessions and 20 sessions respectively with an increase to 60% after 30 sessions. UVA1 phototherapy appears to be efficacious for hand and feet eczema as well as atopic dermatitis. However, in patients with scleroderma, a longer duration treatment may be necessary.
Comparison of Skin Irritancy of SLS-Containing Aqueous Cream to SLS-Free Aqueous Cream and Some Commercial Moisturisers: An Intra-Individual Skin Occlusive Study

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¹Duke-NUS Medical School, Singapore; ²National Skin Centre, Singapore

Introduction: There is growing body of evidence that Aqueous Cream BP may have deleterious effects on skin barrier. The potential culprit being identified is sodium lauryl sulphate (SLS), a surfactant included as a constituent in Aqueous Cream BP. The aim of this study is to evaluate how SLS-containing Aqueous Cream compares against SLS-free Aqueous Cream and other commercial moisturizers.

Materials and methods: Healthy volunteers aged 21 years or older were recruited for a double-blind, randomized intra-individual comparison of moisturizers. Eight different commercial moisturizers, a negative control of normal saline and a positive control of SLS 1% Aqueous formulation were applied once to ten different sites on the skin overlying the back of each subject on Day 0, and subsequently occluded with large Finn chambers for 72 hours. Each individual had randomized treatment sites such that no moisturizer was consistently applied over one specific skin area and all subjects had different treatment sites order. Assessments of the skin were carried out on three occasions: Day 0 (prior to application of moisturizers), Day 3 and Day 7 post application. Clinical assessments followed a 4-point severity scale to grade the degree of erythema, dryness, desquamation, stinging or burning and pruritus. Biophysical measurements employed to measure skin hydration and skin barrier integrity include Corneometer and Transepidermal Water Loss (TEWL) respectively.

Results: 12 patients have been recruited for this study. Aqueous Cream BP showed significant decrease in Corneometer and increase in TEWL readings in Day 7 post-application, with acute erythema on Day 3. However, other moisturizers such as Ceradan, Cetaphil RestoraDerm® and Urea cream showed similar findings of skin dehydration with significant decrease in Corneometer readings. In contrast, SLS-free Aqueous Cream showed no significant changes in Corneometer and TEWL readings, with no skin irritation.

Conclusions: Our study supports that SLS-free Aqueous Cream causes less skin irritation compared to SLS-containing Aqueous Moisturisers and other moisturizers. It appears that SLS contributes to skin irritation, dehydration and skin barrier disruption. SLS-free Aqueous Cream can be promoted as a cost-effective moisturizer with little skin irritancy potential.

Chemical Nail Avulsion – An Effective Alternative Treatment Option for Nail Dystrophy

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Introduction and objectives: Chemical nail avulsion is a lesser-known therapeutic option for nail pathologies. The dystrophic nail is trimmed, pared then occluded with 40% urea to dissolve nail keratin over a week. It is an alternative to long-term antifungals or painful surgical procedures. This study aims to evaluate its efficacy and safety.

Materials and methods: A retrospective analysis was conducted on chemical nail avulsions performed in the National Skin Centre, Singapore from 2013 to 2015. The indication, site and outcome of the nail avulsion was assessed, together with the number of therapeutic cycles required, presence of any side effects and patient satisfaction.

Results: Of 157 patients, the mean age was 49.8 (ranging from 3 - 90) years old. There were 78 men and 79 women. Chinese was the predominant ethnicity - 109 (69.4%) patients, followed by Indians 24 (15.3%), Malays 5 (3.2%) and others. The main indication was onychomycosis with residual nail dystrophy post-treatment (80, 51.0%). Others included onychodystrophy
(27, 17.2%), traumatic nail injuries (19, 12.1%), ingrown (15, 9.5%) and pincer toenails (12, 7.6%). Less frequent indications included chronic paronychia, melanonychia, onychogryphosis and onychomadesis. Most avulsions were performed on toenails (118, 75.2%) with fewer performed on fingernails (32, 20.4%). 8 patients had both finger and toenail involvement. 126 patients (80.3%) had one treatment cycle, the remainder required 2-4 cycles.

Outcome: Of 157 patients, 53 (33.8%) patients showed significant improvement, 90 (57.3%) patients showed partial improvement and 14 (8.9%) had no improvement of their nail dystrophy.

Side effect Profile: 6 patients reported a pain score of 5-6 upon 10. 1 had cellulitis, requiring oral antibiotics. 2 patients experienced irritant contact dermatitis.

Patient Satisfaction: 68 patients expressed feedback documented in the EMR; 56 reported a good outcome, 5 reported a high satisfaction. 7 patients reported being dissatisfied due to lack of response.

Conclusions: Chemical nail avulsion is an effective alternative therapy with most of patients experiencing good improvement. Its safety is evidenced by the few patients who expressed mild discomfort, with no reported major side effects.

Epidemiology, Outcome and Prognostic Factors of 246 Patients with Mycosis Fungoides and Sézary Syndrome in Singapore

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Introduction and objectives: Mycosis fungoides (MF) and Sézary syndrome (SS) are the most common types of cutaneous T-cell lymphoma (CTCL). There is a paucity of data on Asian patients with MF and SS. This study aims to evaluate the epidemiology, outcome and prognostic factors of patients with MF and SS from Singapore.

Materials and methods: A retrospective review of all MF and SS cases seen at the National Skin Centre from 2000 to 2011 was performed. Information was obtained from a cutaneous lymphoma database and by reviewing medical records, supplemented by telephone interviews of patients who were lost to follow up. The Kaplan-Meier method was used to analyse survival rates, and univariate / multivariate analyses were performed to evaluate prognostic factors.

Results: Of 246 patients, 63% were male and the mean age at diagnosis was 36.8 years. The ethnic distribution consisted of 73.2% Chinese, 12.6% Indian, 6.5% Malays and 7.7% other ethnic groups. There were 239 patients (97.2%) with MF and 7 (2.8%) with SS. Median follow-up duration was 6.3 years. The majority presented with early stage disease (91.5% stage IA-IIA). The median duration of symptoms at diagnosis was 13 months. Complete response to treatment occurred in 72.4%, partial response in 9.3% and persistent but non-progressive disease in 9.8%. There was disease progression in 9 patients (3.7%) and large cell transformation in 10 (4.1%). Death occurred in 9 patients (3.7%), of whom 5 (2.0%) were disease-related. Among subgroups, death occurred in 6 (2.5%) of MF patients (all ≥ stage IIb at diagnosis) and 42.9% of SS patients (3 of 7). The mean overall survival was 12.5 years, mean progression-free survival 12.4 years and disease-specific survival 12.7 years. Factors associated with a more favourable recurrence-free survival were male gender (p = 0.008), early disease stage (T1) at diagnosis (p < 0.001) and absence of maintenance treatment after remission (p = 0.010).

Conclusions: MF has a favorable prognosis with a low mortality rate in our cohort. A younger age at diagnosis is observed and is possibly due to the relative ease of access to tertiary dermatology care owing to geographical reasons.
## FREE PAPER (CASE REPORTS)

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Red Ears

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Introduction: Acral erythema is well-established side effect of chemotherapeutic agents. It commonly affects patients on cytarabine, pegylated liposomal doxorubicin, capecitabine, or 5-fluorouracil (5-FU). It begins with a tingling sensation in the palms and soles. Tender, symmetrical erythema and oedema ensues. In severe cases, the skin may blister and ulcerate. Symptoms often appear within 24 to 48 hours of chemotherapy initiation and resolve over 2 weeks. They may recur each time a new cycle is initiated. Rarely, acral erythema involves the pinnae of the ears. This is termed “ara-C ears” where Ara-C stands for arabinofuranosyl cytidine (cytarabine). Here, we describe such a case.

Case description: A 49-year-old lady with no significant past medical history is newly diagnosed with FLT3 negative acute myeloid leukemia, presenting with heavy menstruation and pancytopenia. She underwent the first cycle of induction chemotherapy using danorubicin (days 1 to 3) and cytarabine (days 1 to 7). On day 7, she developed pruritic, painful rashes over the bilateral upper limbs, lower limbs and trunk, involving 5% body surface area. The rashes were increasingly purpuric over a 2-day period. This was associated with erythema and edema of both ear lobes and the pinna. Histology of the affected skin demonstrated a superficial perivascular mixed infiltrate composed of lymphocytes, histiocytes and plasma cells with occasional neutrophils. With the use of betamethasone valerate 0.1% cream for symptomatic relief, the skin rashes and erythema over her ears resolved over the next 6 days.

Discussion: In our patient, she developed the classical involvement of her ears with use of cytarabine, with rapid resolution upon completion of her chemotherapy cycle. In typical cases, biopsy results will show basal cell vacuolar degeneration and upper dermal leukocyte infiltration. In this case, the short duration of the eruption and early biopsy on the first day or skin eruption may explain the lack of evidence of interface dermatitis.

We report this case with the intention of highlighting this key clinical feature of Ara-C ears as part of acral erythema due to chemotherapy. We hope to increase awareness of this side effect as cytarabine remains widely used as a chemotherapeutic agent.

Anatopic Phenomenon in a Patient with Tinea and New Onset Bullous Pemphigoid

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The anatopic phenomenon describes the presence of infection at a cutaneous site which modulates the inflammatory response of an unrelated dermatosis at the same site. We report a 69-year-old Indian gentleman, who presented with annular scaly plaques over the axillae bilaterally, groin and abdomen. He was diagnosed to have tinea corporis and cruris and started on topical anti-fungal therapy. Four weeks later, he developed new urticated plaques and bullae sparing previous hyperpigmented scaly plaques of tinea. Skin biopsy for histology, direct immunofluorescence and serum ELISA testing for BP 180 was consistent with the diagnosis of bullous pemphigoid. It is hypothesized that an immunomodulatory effect of fungal infections in a patient with bullous pemphigoid, may affect the inflammatory cascade in non-affected areas, yet suppressing the same inflammatory processes in prior affected sites. This is the first known case of an anatopic phenomenon occurring in a patient with bullous pemphigoid, sparing skin prior affected by tinea.
Bardet-Beidl Syndrome Occurring in Association with Erythrokeratoderma: A New Association?

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¹National Hospital of Sri Lanka; ²Teaching Hospital Kandy, Sri Lanka

Introduction: Bardet-Beidl syndrome (BBS) is a rare autosomal recessive disorder with genetic heterogeneity. 16 genes have been identified accounting for 80% of BBS. BBS is a ciliopathy characterized by retinal dystrophy, obesity, post axial polydactyly, renal dysfunction, learning disability and hypogonadism. Previously reported skin manifestations of BBS include psoriasis, atopic diathesis, acanthosis nigricans, purpura secondary to ITP, multiple melanocytic nevi and gingival hyperplasia. We report the first case of BBS associated with erythrokeratoderma which was successfully treated with acitretin.

Case history: Our patient was a 14 years old female with first degree consanguineous parents. She was obese, with poor vision, global developmental delay, hexadactyly and thick scaly skin since infancy. Patient had extensive hyperkeratotic scaly skin affecting the upper and lower limbs, trunk and scalp. Face was spared and there was no palmoplantar keratoderma. Fixed hyperkeratotic plaques had a figurate border with mild erythema extending beyond the keratotic border. Family history was negative for similar skin conditions. Patient was evaluated for starting acitretin for keratoderma which revealed dyslipidemia and diabetes mellitus. Ophthalmological evaluation revealed retinitis pigmentosa with bone spicule pigmentation. Diagnosis of BBS was made and ultrasound scan was done to screen for renal abnormalities which was negative. Skin biopsy was nonspecific with acanthosis and hyperkeratosis. Patient was treated with topical keratolytics and acitretin with rapid resolution of erythrokeratoderma, but acitretin had to be discontinued uncontrolled hypercholesterolemia.

Conclusion: BBS is a rare condition with many skin manifestations. Heterogeneity of skin manifestations may be due to the genetic heterogeneity of BBS. This case is the first case of BBS presenting with erythrokeratoderma. It also serves to highlight the challenges faced when treating patients with obesity and metabolic syndrome (cardinal features of BBS) with systemic retinoids.

Disseminated Herpes Simplex Virus and Varicella Zoster Virus Co-Infection in an Immunocompetent Patient

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Disseminated co-infection with herpes simplex virus (HSV) and varicella zoster virus (VZV) has been reported in immunocompromised patients, and only localised dermatomal HSV and VZV co-infection has been rarely seen in immunocompetent patients. We present a case of both viruses causing disseminated infection in an immunocompetent patient.

A 64-year-old Chinese man with history of an arteriovenous malformation (AVM) resulting in epilepsy was admitted for a breakthrough seizure secondary to intraventricular haemorrhage. He underwent insertion of an external ventricular drain, and replacement with a ventriculoperitoneal shunt 15 days later. He was stable post-operation and his Glasgow Coma Scale (GCS) was 14. At postoperative day 4, he developed a fever and a widespread blistering rash. He was febrile, tachycardic, and his GCS was 8. There were multiple tense clear fluid-filled small bullae on his trunk, upper limbs, and macerated erosions on the axilla and periumbilical area. There were extensive crusted erosions over his cheeks and forehead, and weepy erosions on the penis. Investigations revealed leucocytosis, mild transaminitis, and renal function tests were normal. Serum PCR for HSV Type 1 was positive. HSV PCR from a blister swab was negative. Serum VZV IgM, IgG and blister swab VZV immunofluorescence returned positive. Blood cultures were negative. Chest radiograph revealed air space opacification in
the right lower zone, suggestive of infection. The patient was commenced on intravenous acyclovir, and meropenem and vancomycin for healthcare-associated pneumonia. He responded well with haemodynamic stabilisation and resolution of the rash.

To our knowledge, this is the first case of both viruses resulting in a disseminated infection in an immunocompetent host. There were no pre-existing conditions to cause a lowered immunocompetent state or use of systemic immunosuppressant drugs such as steroids. Tests for retroviral infection and diabetes were negative. It is possible that stress associated with the surgery with consequent cortisol release contributed to transient lowered immunity. Also, the HSV PCR and VZV assays test kits stated no cross-reactivity.

In summary, we report a case of disseminated HSV and VZV co-infection in an immunocompetent host and wish to raise physicians’ awareness of this, especially in the postoperative period.

Acquired Idiopathic Generalized Anhidrosis – Successful Treatment with Cyclosporine

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¹National Skin Centre, Singapore; ²Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

Acquired idiopathic generalized anhidrosis (AIGA) is an uncommon disorder of generalized absence of sweating without other exogenous, dermatological and neurological causes. Fewer than 100 cases are reported worldwide. It is characterized by a sudden onset in early adulthood, with absence of other autonomic dysfunction. Heat-induced pain and urticaria may be features. There is no established treatment modality for AIGA, with systemic corticosteroids being most commonly reported. There were cases of successful treatment using intravenous immunoglobulin and cyclosporine.

We herewith report 2 cases of AIGA with debilitating symptoms being treated successfully with cyclosporine. Both patients demonstrated generalized anhidrosis, were forced to remain in an air-conditioned environment, and experienced intolerable heat-induced pain. Treatment with Prednisolone at (0.5–0.8mg/kg/day) was met with minimal improvement. Cyclosporine was started, and dose escalated to a maximum of 5mg/kg/day. Following a 6 month treatment period, their symptoms markedly improved. Starch-iodine test (Minor Test) post-exercise demonstrated sweating over previously anhidrotic areas.

The pathophysiology of AIGA remains unclear. Three subtypes have been postulated – idiopathic pure sudomotor failure (IPSF), sweat gland dysfunction (SGF) and sudomotor neuropathy. IPSF comprised the largest subgroup of reported AIGAs. Functional deficits in cholinergic receptors or acetylcholine transmission have been postulated as causative factors of IPSF.

Interestingly, lymphocytic infiltration around eccrine structures has been demonstrated in AIGA – particularly in the IPSF and SGF subtype. Specific lymphocyte subclass – CD3-positivity, were seen in these infiltrations. CD3-positive lymphocytes activate cytotoxic T cells, and induce cell-mediated disorders. Alongside elevated serum IgE levels in the IPSF variant of AIGA, an immunologic-mediated process is plausible, which explains AIGA’s responsiveness to systemic steroids.

Cyclosporine inhibits the activity of CD3- and CD4-positive T cells. It binds to cyclophilin and inhibits calcineurin, leading to decreased production of lymphokines and reducing effector T-cells function. This may explain cyclosporine’s efficacy in treating AIGA.

Both our cases responded well to Cyclosporine following failure with other treatment modalities. Our report of 2 cases demonstrates the promise of cyclosporine in difficult-to-treat and severely symptomatic cases of AIGA.
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