ONYCHOSCOPE
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Nail Society of India

Official Newsletter of NSI **Vol. 4, Issue 2, July 2015**

Dear Friends!

Time for yet another rendezvous through ONYCHOSCOPE. NSI is making steady progress with over 220 life members and a very active facebook group of nail enthusiasts from all across the globe that never stops buzzing with intriguing nail cases. This group has emerged as a great learning platform where members share good Nail cases and learn from each other. It's a matter of pride for all associated with NSI that the society is well recognized in international nail circle. Dr Chander Grover, Secretory NSI, was an invited faculty during 73rd Annual Meeting of American Academy of Dermatology (AAD), held at San Francisco, California, USA from the 19th-24th of March, 2015 and I was an invited speaker at recently concluded 23rd World Congress of Dermatology (WCD) held in Vancouver, Canada during 8th -13th June, 2015.

This issue will find a write up on the most evolving nail diagnostic procedure i.e. 'Onychoscopy' by eminent nail personality Dr Chander Grover. She has given a very lucid and basic description on how to do the procedure and what to expect in normal nail and nail in disease. In addition, this issue will feature snippets and carry home messages from Nail sessions in the 73rd AAD and recently concluded 23rd WCD. Regular and much awaited columns on Photo-quiz have been contributed by Dr Amit Dhawan and Nail maze by Dr Anupama. **The first two winners of this quiz will get complimentary registration to the forthcoming 3rd ISND and 4th ONYCHOCON**.

The year 2015 is going to be the most happening and exciting year in the history of Nail in India as we will witness the long awaited global event, **3rd International Summit for Nail Diseases (ISND) along with the 4th ONYCHOCON (Annual National Conference of NSI)** to be held from **20th Nov to 22nd Nov 2015**. This nail summit is organized by the department of dermatology, University College of Medical Sciences and GTB Hospital in hotel 'Holiday Inn' Mayur Vihar, Delhi. It's a matter of pride that we have the most **impressive list of participating International faculty**. I take this wonderful opportunity to extend a very cordial invitation to each one of you to attend the summit for which registration is already open. I also request you to disseminate the information to your colleagues, junior and senior friends. I assure you that this will be a unique and best platform to learn all about nail from the stalwarts of Nail from all across the world.

We at NSI are eager to extend a very warm welcome to you in the historic and vibrant city of Delhi. Should you have any query, please feel free to contact us at nailscocietyofindia@gmail.com. Please also visit www.nailsocietyindia.com and www.isnd2015india.com for further details.

Dr Archana Singal

Onychoscopy and Nail Fold Capillaroscopy

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Onychoscopy ('Onychium' + Dermatoscopy) refers to dermatoscopic examination of the nail unit and its various components. The technique permits an easier evaluation of features which may not be otherwise visible to the naked eye. The field of Onychoscopy is more or less a recent development. Mostly, it has been utilised in the field of nail unit pigmentation (especially to rule out melanomas). However, of late, it has been found useful in a number of different indications.

Just as Dermoscopy acts as a valuable interface between Macroscopic Dermatology (i.e clinical features) and Microscopic Dermatology (i.e histopathological features); the same way Onychoscopy acts as an interface between Clinical Onychology and Nail biopsy and histopathology. It opens up a valuable second front, and can potentially prevent many biopsies.

The technique offers many **advantages**. It is useful in enhancing the visible nail features mostly. However, it also helps in identifying additional unique and fascinating features, not visible to the naked eye. It is non-invasive, still opens up a second microscopic level of inspection. It is practical to use and can be used in a busy setup. It contributes towards confirmation of diagnosis, assessment of treatment and prognosis.

However, there are certain procedural constraints to be kept in mind. The peculiar anatomy of nail may make it physically difficult to perform dermatoscopy. The entire nail cannot be visualised in one field and frequent shifting of focus and angles is required. Nail convexity and hardness prevents complete adherence of lens. Taking pictures of different parts may not be easy and periphery tends to go out of focus. Above all, it cannot replace clinical examination

Prerequisites for performing successful onychoscopy include a thorough knowledge of nail unit anatomy. Various **instruments** could be used for the nail unit. A **hand-held dermatoscope**: generally provides a low magnification (X10) and may not be useful for evaluating the vascular architecture. **Video-dermatoscopes** are capable of providing higher magnification (x200) and are very versatile devices. In addition, one needs acetone or spirit swabs for cleaning the nail plate surface. The examination should be performed on a hard and dull, working surface with the hand being kept at the level of the heart. Maintenance of normal ambient temperature ensures that the capillary architecture is reliably evaluated.

The examination procedure involves first of all, choosingwhere to look, as the whole nail may not be visible in one field. One may then need to move back and forth as well as transversally. Depending on the part being examined, one will need to decide between dry vs wet examination; and the use of polarised vs non-polarised light. Various types of interface media can be used including mineral oil, ultrasound gel, and alcohol. Care should be taken to avoid pressure to prevent blanching of the nail bed.

Onychoscopic and Capillaroscopic parameters for the normal nail need to be understood before the disease induced changes can be appreciated. These are summarized below

1. Nail plate
The normal nail plate appears pale pink in color, with smooth shiny surface. Occasionally longitudinal striae may be appreciated with a beaded appearance. Such a change is common with age. The various surface abnormalities are best appreciated with the help of a dry examination (Fig 1).

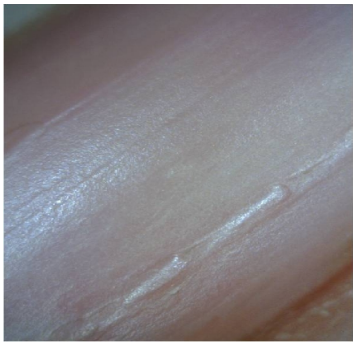


Figure 1

However for evaluating and color abnormalities an interface is needed to delineate the color changes appreciably (Fig 2a, b). Normally a magnification of 10-20x is enough to examine a nail plate.

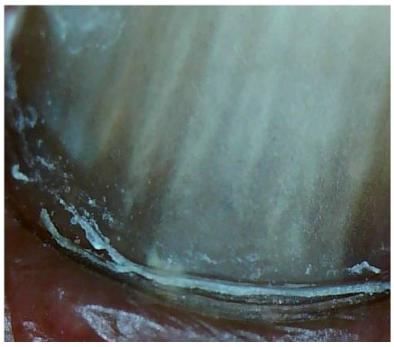


Figure 2 a

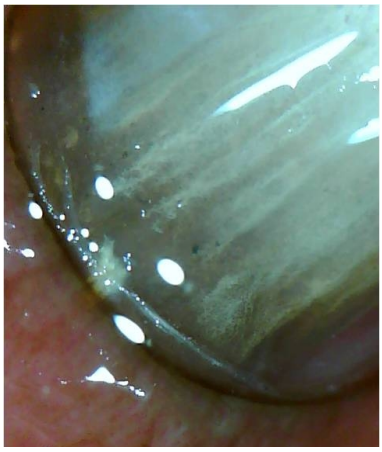


Figure 2 b

2. Nail bed

This becomes visible with an increased transparency of the nail plate. This can be ensured with the help of various interface media like mineral oil, ultrasound gel, antiseptic gels, or alcohol **(Fig 3)**. Similarly, the proximal nail bed changes may also be appreciated **(Fig 4)**.

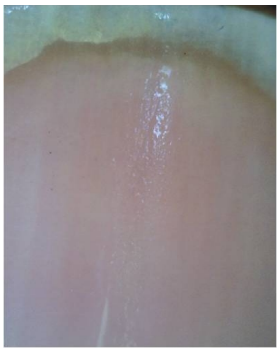


Figure 3

Figure 4

3. Hyponychium

For examination of the hyponychium, a slanting of the dermatoscope is required. This may be hard to achieve initially. One needs to focus under the free edge of the nail plate. At lower magnification (10-30x), one can visualise the nail plate structure and subungual contents (Fig 5); whereas at higher magnification (70-100x), the detailed capillary architecture can be visualised.

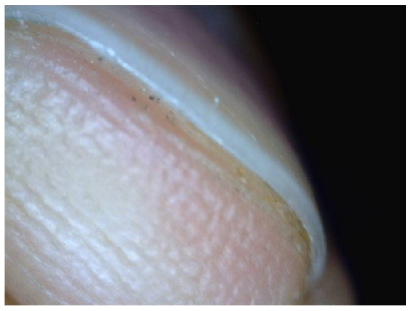
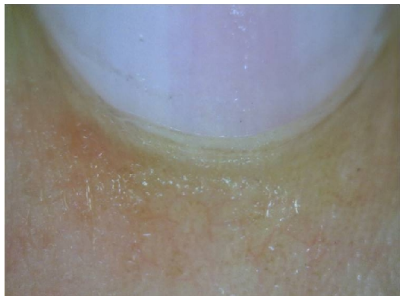


Figure 5

4. Proximal nail fold

At low magnification, it is seen to have a smooth surface, which is pale pink in color. The cuticle is seen as transparent transverse band sealing the plate (Fig 6).



At higher magnification, capillary vessels can be visualised. These are unique as they flow parallel to skin surface (each resembling a hairpin); with a uniform morphology and homogenous alignment (Fig 7).

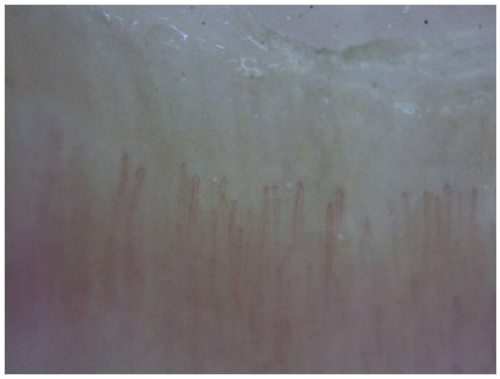


Figure 7

Indications for Onychoscopy

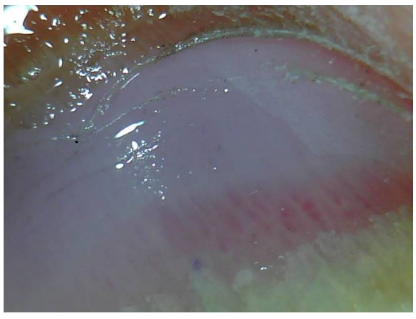
Well-defined Onychoscopic characteristics and/or criteria are available in literature forthe following conditions

- Nail pigmentation: especially longitudinal melanonychia
- Onychomycosis
- Nail Psoriasis
- Nail Lichen planus
- Traumatic nail abnormalities
- Subungual haemorrhage
- Occasional reports: onychomatricoma, glomus tumor
- Connective Tissue disease especially Systemic Sclerosis

Only a few of these are discussed here very briefly:

Nail Psoriasis

Characteristic nail bed features include an erythematous border surrounding onycholysis (**Fig 8**); salmon patch (**Fig 9**); pustular lesions; and splinter hemorrhages (**Fig 10**). The nail plate characteristics include nail pitting (**Fig 11**) and crumbling. The hyponychium and proximal nail fold area show irregularly distributed dilated capillaries (**Fig 12**).



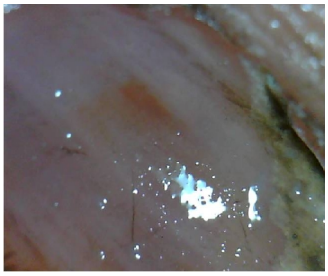


Figure 9

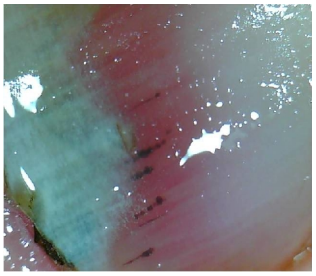


Figure 10

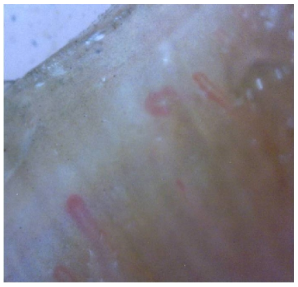


Figure 14

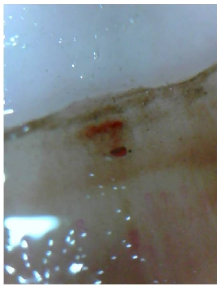


Figure 15

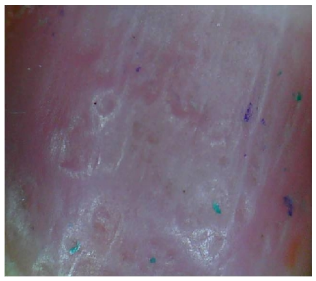


Figure 11

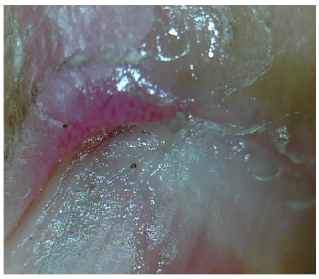


Figure 12

Onychomycosis

The salient dermatoscopic features described for onychomycosis include jagged proximal edges of the onycholytic area; 'Spikes' ofonycholytic areas (Fig 13); white-yellow longitudinal striae within the onycholytic nail plate; and parallel bands of different colors ('Aurora Borealis' pattern).

Figure 13

Systemic Sclerosis

Changes in nail fold capillaries can be visualised in most connective tissue diseases. The typical nail fold capillaroscopy pattern described in this condition is also known as "scleroderma pattern". These changes are best visualised in the 4th finger. Similar changes may be appreciated in dermatomyositis, mixed connective tissue disease, Raynaud's syndrome and various systemic diseases as well.

The NCP changes in SSc are best discerned on videocapillaroscopy. They are delineated as early changes [few enlarged capillaries (**Fig 14**) and few hemorrhages]; active disease[frequently enlarged capillaries and frequent hemorrhages (**Fig 15**)]; and late changes [irregular enlargement, severe loss of capillaries and avascular areas]

On dermatoscopy, these changes have been graded as **Grade I**[capillary dilation]; **Grade II** [Giant capillaries]; **Grade III** [disrupted vascular configuration]; and Grade 1V changes [both giant and dilated capillaries].

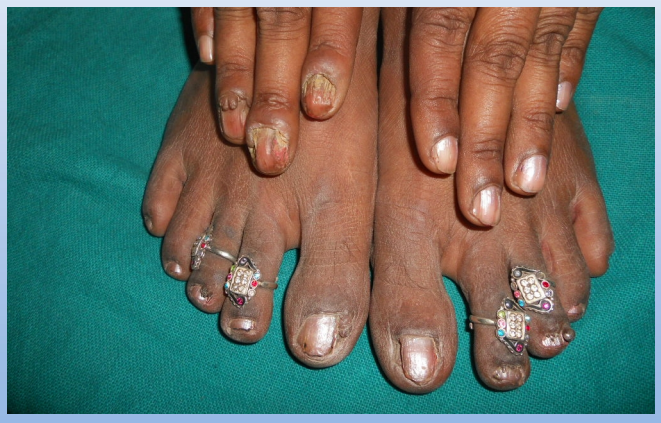
In conclusion, onychoscopy definitely permits a better visualisation of nail signs. For a few diseases, it may really add a lot to clinical examination. Both 'dry' and 'interface' examination of the nail is needed to form an opinion. The technique however, may not be easy to perform, and requires good knowledge of anatomy and nail diseases. It also has its critical limitations and cannot replace

Acknowledgement:

Dr Deepak Jakhar, 2nd Year Dermatology Resident, UCMS for help in taking few photos

Nail Quiz

We present a case of 35 year old female patient who presented with multiple skin lesions over face and around both finger and toe nails for 10 years. She also had history suggestive of generalized tonicclonic seizures. On examination she had multiple eryhtematous papules present over face especially clustered around cheek, nasolabial region. Her dental examination showed enamel pitting. Nail examination showed presence of skin colored papular outgrowth arising from proximal nail fold region in both finger and toe nails. There was also longitudinal splitting, ridging, dystrophic changes and proximal nail fold swelling in few nails.



Q A. What is your diagnosis and further line of management?

Answers on Page number: 8

Conference Report

73rd Annual Meeting of American Academy of Dermatology

19-24th March, 2015at San Francisco, California, USA

The 73rd Annual Meeting of American Academy of Dermatology was held at San Francisco, California, USA from the 19th-24th of March, 2015. Like every year, this was an event of global proportions, organized by the American Academy of Dermatology, the largest professional association of dermatologists. This conference brought together approximately 14,000 attendees from many countries in the world. The conference included numerous world renowned scholars conducting programs, focus sessions, symposia and workshops. The meeting was located in the Moscone centre, a vast convention and exhibition complex comprised of three large building complexes.

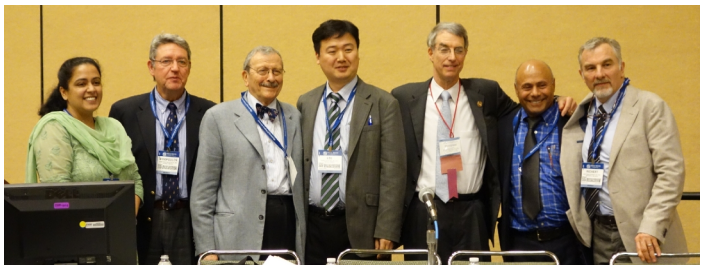
The Conference had a decent amount of emphasis and focus on Nail related research. I was fortunate enough to attend the **19th Annual Scientific Meeting of The Council of Nail Disorders (CND)** as well. It was held one day prior on the 19th of March. The Morning session on "Nail Basics: What's New?" was co-chaired by Drs Antonella Tosti and Martin Zaiac. It focused on various aspects of onychomycosis including its types, diagnostic considerations (including PCR), prognostic factors and newer treatments. The highlights were the sessions on newer topical antifungal treatment options. The afternoon session was conducted by Dr Bertrand Richert, President, CND. The Keynote speaker was Dr Zoe D Draelos who spoke on Nail cosmetics in diverse populations. The afternoon session also included the Scher/Baran Resident Awards apart from sessions on Nail Melanoma, Nail psoriasis, bacterial nail infections as well as an interesting collection of Nail cases.

The Main conference was also enriched with workshops, forums, and focus sessions dealing with different aspects of nail diseases. I participated as an invited faculty in the "Nails Symposium" (S045); a three hour session seeing participation by close to 500 delegates. The session was planned by Dr Adam Rubin, MD and was chaired by Dr C Ralph Daniel, MD, who also spoke on various new diagnoses as well as newer antifungal medications available in practice. **I presented my research work onutility of Nail Surgery and Lasers for Onychomycosis**. Presenting my research work and interacting with internationally known figures in the field of Nail disorders was an enlightening experience for me. DrAvnerShemer, Israel presented his experience on NDM onychomycosis, especially its diagnosis and treatment. Dr Christopher Miller shared practical tips for routine nail surgeries, including transportation of biopsy specimens. Dr Bertrand Richert, President CND spoke on squamous cell carcinoma of the nail unit. Interesting presentations of this entity were shared. Dr Richard Scher deliberated on the use of imaging techniques in nail disorders, including various nail unit tumors. Dr Rigopoulos, Greece, provided management tips for various types and severity of nail psoriasis. Dr Robert Baran, France shared insights on nail manifestations in systemic disease. Dr Dong-Youn Lee, South Korea shared his experience about diagnosis and management of nail unit melanoma. The session was followed by an elaborate and enthusiastic interactive session where audience queries and doubts were answered by all concerned experts.

The Symposium was evaluated as a part of AAD protocol. The session received an overall speaker score of 4.42 (scale of 0-5).

Apart from this session, I also attended sessions related to 'nail disorders and surgery' which are areas of major interest for me. I got to listen and learn from the experiences of stalwarts like Antonella Tosti, Bertrand Richert, CR Daniel, Robert Baran, Beth Reuben, Nathaneil Jellinek, Phoebe Rich etc. The conference format which allowed for enough interaction time with speakers helped me solve doubts and gather knowledge about newer approaches towards common nail problems.

-Dr Chander Grover



The Symposium "Nails" San Francisco, USA. Faculty for the session from Left to Right: Dr Chander Grover, India; Dr Dimitris Rigopoulos, Greece; Dr Robert Baran, France; Dr Doung Youn Lee, South Korea; Dr C Ralph Daniel, USA (Session Chair), Dr Avner Shemer, Israel; Dr Bertrand Richert, Belgium.

Drs Soni Nanda and Chander Grover at 73rd AAD, San Francisco, USA

Conference Report

23rd World Congress of Dermatology (WCD)

8th – 13th June, 2015, Vancouver (Canada)

The recently concluded 23rd World Congress of Dermatology (WCD) was held in Vancouver, Canada during 8th -13th June 2015 and was organized by Canadian Dermatology Association (CDA). WCD is a much awaited international event in the dermatology circle and is held once in every 4 years. The 23rd congress saw participation of over 11,000 delegates from 116 countries at swanky Vancouver Convention Centre (VCC), a state of the art convention centre situated at the stunning backdrop of mountain and sea. The scientific program offered Workshops, Plenary sessions, Symposia, Focus sessions and free paper sessions.

The **Nail Symposium (SY33)** was held on 11th June and I participated as an invited speaker. It was a 3 hours long session and saw attendance of more than 700-800 delegates. Prof AntonellaTosti from USA and Prof BertnardRichert from Brussel were the chairs for the session. The session had 9 invited speakers from all across the world (USA, Brazil, Greece, Brussel, Canada, France and India). The opening speaker was none other than Bianca M Piraccini, from Italy and she spoke about the 'Management of melanonychia'. She gave a step-wise

approach to the disorder and emphasized on the recognition of following points i.e. to decide if the pigment is melanin or not (on onychoscopy), if the melanonychia is involving single or multiple nails, Pattern of pigmentation (longitudinal or diffuse) and age of the lesion. She added that Onychoscopy/ dermatocopy is not very reliable in two situations;paediatric age group and when the whole nail shows diffuse pigmentation. This was followed by a talk on the Diseases of the proximal nail fold by Prof Patricia Chang from Guatemala. She explained with large number of clinical pictures that the PNF involvement can occur in variety of systemic disorders (vasculopathy, connective tissue diseases), infections (cellulitis, herpes, wart, paronychia), drug reactions (FDE, SJ syndrome and TEN) and tumors (fibroma, SCC and others). Prof Dimitris Rigopoulos elaborated on newer therapeutic modalities for Nail psoriasis including 8% clobetasol nail lacquer, Dexamethasone iontophoresis and use of 0.1% Tacrolimus ointment. Prof AntonellaTosti deliberated on the features of Yellow Nail Syndrome YNS (arrest of nail growth, over curvature and loss of cuticle resulting in secondary colonization by Ps. aeruginosa). She emphasized that yellow discoloration is not an important feature and involvement of respiratory system is not mandatory. The treatment modalities with good outcome included vit E (1200 UI/day), oral fluconazole (150-300 mg/wk) for 3 months and itraconazole pulse (400mg/day x 7d) for 3 pulses. She stated that nail changes restricted to middle and 2nd finger should raise a suspicion of carpel tunnel syndrome. **I presented interesting nail cases from India that included two cases of subungual malignant melanoma (MM), hpertrophicsubungual inclusion cyst, post-traumatic ectopic nail and extensive candidalonychomycosis in a child with underlying pulmonary histocytoma that showed excellent response to daily fluconazole given along with chemotherapy**. I lay emphasis on keeping high index of suspicion in all pigmented nail lesions and biopsying them as early detection may prevent distant metastasis thereby improving outcome in subungual MM. The treatment of localized subungual melanoma generated lots of discussion and it was agreed upon that for subungual MM in-situ without bone involvement, functional surgery (removing whole of the involved nail unit) and letting the lesion heal by secondary intention is better than digit amputation. Latter is preferred for invasive MM.

Prof BertnardRichert discussed his series of 8 cases of SCC of nail unit. The risk factors included trauma, ionizing radiations and oral exposure to Arsenic. SCC tends to involve fingernail more than toenails and often there is a mean delay of 6 years in its diagnosis as the tumour resemble wart very closely. He stressed that all non-responsive warty and/or oozy lesions with or without onycholysis should be biopsied for early diagnosis of SCC. Dr Judith Dominguez, from Mexico demonstrated infantile multiple ingrown nails caused by grasp reflex. The condition resolves spontaneously at 4 weeks. Finally DrNcozaDlova from South Africa discussed profile of nail cases and interesting nail cases from her region and Dr Adam I Rubin dwelled on the benign nail tumours.

The chairs allowed a very interactive session that helped bring clarity to the subject. The discussions with the international stalwart in Nail Diseases gave me a fresh perspective of the Nail disorders and advances that can be made in this field.

-Dr Archana Singal

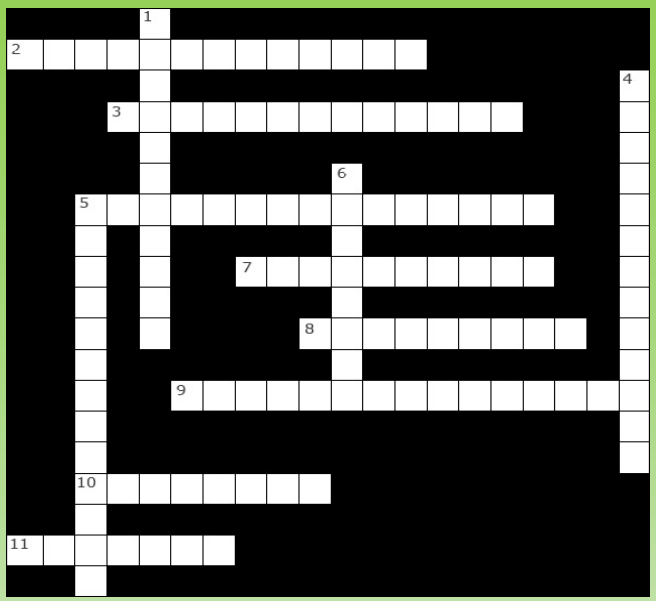
With Prof Dimitris Rigopoulos from Greece

Speaking At WCD ACSICON

Team ACSICON
Nail session

With Scientific chairs of ISND; Prof Bertrand Richert and Dr Sushil Tahiliani

Nail Maze



Across

2. 'Turtle back configuration' of nails is a feature of
3. Sand blasted nails are seen in
5. Ostler's nail is also known as
7. Yellow discoloration of nails in 'yellow nail syndrome' is due to deposition of
8. Triangular defect of fingernails with its base at the free edge of nail is known as
9. Long cuticle is characteristic of
10. Hippocratic fingers denote which nail deformity
11. Keratin pair K6/K16 is found in which part of nail apparatus

Down

1. Drug responsible for blue lunulae
4. Congenital anonychia is associated with mutation of
5. Growth of hair follicle longitudinally underneath the nail plate is known as
6. When compared to hair keratin, nail keratin has less amount of which amino acid

Compiled by:
Dr. Anupama
Senior resident
Department of Dermatology,VMMC and SJH, New Delhi

Please mail your answers to nailsocietyofindia@gmail.com

Names of the winners will be published in the next issue of the newsletter. **The winners who are members of NSI will be awarded free registration to the upcoming conference.**
The first two winners will be awarded Complimentary Registration for the upcoming **3rd ISND and 4th ONYCHOCON**

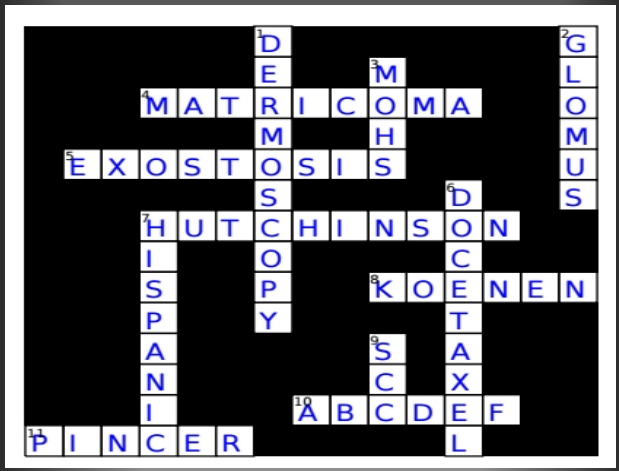
Answer to Photo Quiz

KOENEN'S TUMOR WITH TUBEROUS SCLEROSIS COMPLEX.

A detailed clinical history, examination along with thorough work up in view of visceral associations associated with tuberous sclerosis complex should be done. A multidisciplinary approach is warranted depending upon systemic associations. Koenon tumors can be removed surgically and ablative lasers.

Dr Amit Kumar Dhawan,
(MBBS MD)
Dr Dhawan skin, cosmetology and laser clinic, 61 1st floor Edward line,
Kingsway Camp , Delhi

Solution to Nail maze from Onychoscope Vol 4, Issue 1, Jan 2015



The winners are:
Nirmal B, Sumit Sethi, Kalpana Patel, Himanshu Gupta, Shikha Gupta, Deepashree Daulatabad, Kenit Patel
(All correct entries, in the order of their receipt by mail)

Congratulations!!

To the winners Complimentary Registration to the 3rd ISND.

Urmi Khanna, Nirmal B, Sumit Sethi, Kalpana Patel

Keep participating! Keep winning!!

Editorial Board Members


Dr Archana Singal


Dr Chander Grover


Dr Shikha Bansal


Dr Sidharth Sonthalia