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Dear Nail friends

It is my proud privilege to present to you the **11th ONYCHOSCOPE**; a biannual newsletter of NSI that encompasses news pertaining to NAIL from national as well as International platforms.

Nail Society of India (NSI) is 5-year old and have been able to fulfill to a large extent the vision of NSI i.e. to encourage and advance the current knowledge and practices about Nail in health and disease. This is evident by the fact that in this period, we have held successfully one National symposium, **5 ONYCHOCONS** (the Annual National Conference of NSI) and one International Summit (ISND, 2015), in different parts of India. These conferences have been well attended and appreciated for their academic contents. NAIL is finally getting its well-deserved attention in the form of exclusive nail sessions given in the prime slots during various conferences including Asian Dermatology Congress (ADC), DERMACONS and recently concluded World Congress of Cosmetic Dermatology (WCOCD). There is international recognition in the form of delegate participation and faculty invitation in CND, EADV and very recently ISND. Still there is 'miles to go before we become complacent'.

The present issue of **ONYCHOSCOPE** carries invited faculty write up by Prof Sanjeev Gupta elaborating 'Innovations in Nail surgery' and it is indeed heartening to see these pearls well suited for the resource poor settings. Prof Chander Grover has penned down very lucid conference reports from AAD and ISND. Latest news from the NAIL world comes from Dr Neha Kumar. Stimulate your grey matter while solving other constant features like Nail QUIZ and Nail MAZE contributed by Dr Deepak Jakhar and Dr Payal Yadav.

We at NSI value and appreciate our each and every member for keeping faith in us and for being with us in this Nail journey. We hope to see you all during **6th ONYCHOCON** to be held in the **historic and holy city of Amritsar** during 4th & 5th Nov 2017 and organized by **Prof B B Mahajan, Prof M L Gambhir and their team.**

Viva La Vida NSI!

Archana Singal



Innovations In Nail Surgery



Dr. Sanjeev Gupta,
MD, DNB, MNAMS.
Professor and Head.
Maharishi Markandeshwar
Institute of Medical Sciences & Research, Mullana,
Ambala

Over the years, nail surgery has evolved. Instead of the cumbersome and potentially scarring techniques, innovative techniques have been introduced to improve patient outcomes. This article describes few innovations introduced by us in the field of nail surgery.

Saw-toothed motorised punch for nail biopsy:-

Diagnosis of nail disorders is usually on a clinical basis; however, confirmation requires histopathological examination. Because of the cumbersome procedure of nail biopsy, this investigation is often neglected, main limitation being the unavailability of appropriate instruments for punching out the biopsy/tissue sample. The routine skin biopsy punch is commonly used but the nail being a rigid structure, is not easily penetrated. A great amount of pressure needs to be applied to pierce the nail plate. Often the punch breaks during the procedure, particularly the one with a plastic handle. Based on the concept of motorized FUE punches, we designed motorised punches for nail biopsy. As nail plate is a tough structure, we created a serrated/sawtoothed motorised punch for same. Unfortunately, the FUE punches available in market are of small sizes (maximum size of 1.2mm); whereas, we need motorised sawtoothed punches of sizes varying from 2mm to 4mm.

Design:- The motorized nail biopsy punch is a cylindrical device made of metal (brass or stainless steel) with hollow tube at one end and a solid rod at the other end (Fig 1). The edge of the hollow tube is sawtoothed with various sizes and angulated tips depending upon the requirement. For a thick, hard and tough nail plate the angulations of sawtoothed end were kept acute and the number of angulated tips were increased (Fig 2). For nail deformities/disorders with normal or thin nail plate, the cutting-edge of the hollow tube needed less number of angulated tips and the tip was made more obtuse with less number of angulated tips (Fig 2). We

can also have squared tips with furrows/groove in between the 2 tips (Fig 3).

Fig 1



Fig 2



The size of the hollow tube can vary depending on to the sample size/diameter of tissue to be taken. This is mostly determined by the type of nail biopsy being done. Size can vary from 2 mm to 4 mm according to requirement in most of the nail pathologies (Fig 4).

The inner and the outer diameter of hollow tube is kept around 0.4 mm . A window is provided on the side so that if the tissue sample gets stuck inside the hollow tube, it can be pushed out by using fine-tipped forceps or a hypodermic needle. The other end is a solid rod/

Fig 3



shaft with the length of 30 mm and diameter of 2.3 mm which suitable for fitting into commonly used micro motor (Fig 5). It is the same micro motor which can be used in dental and hair transplantation procedures. After all commonly pre-procedure precautions and preparations, required for nail surgery the biopsy

Fig 4



site is marked. Pre-sterilized biopsy punch is connected to the micro motor and the RPM is set between 2000-4000 per minute as per requirement. The punch is held vertically and penetrated on the marked site. It should be borne in mind that the device is motorised and the tool is rotating at a very high rpm; hence, the tissue penetration must be extremely slow and in vertical axis only. A constant irrigation of the site with normal saline can help reduce friction by draining the powder of the nail plate and keeping the tissue temperature low.

Fig 5



As soon as the nail plate is penetrated, there is a sudden decrease in the resistance offered. This is the indication to withdraw the punch if only nail plate sample is required. In case sampling of nail bed or matrix is to be done, the device is further penetrated for approximately 1mm and then withdrawn. The micro motor is then switched off. The tissue cylinder can be lifted with the help of fine-tipped forceps and separated from the base with help of small scissor or surgical blade. A firm pressure is given over the sample site for 5 to 10 minutes to stop the bleeding, and antiseptic dressing is done. Post-operative medications and follow up is like any other nail biopsy procedure. Using motorised punch with saw-toothed edges for nail biopsy makes the procedure easy, quick and effortless.

Nail Abrasion for debulking diseased nail plate:-

Fungal nail infections are one of the commonest diseases presenting to a dermatologist. Onychomycoses can be really difficult to treat, especially with altered nail plate architecture. It is a chronic & less successfully treated entity due to various factors including slow growth of nail plate, lack of vasculature, poor penetration of drugs etc. The infected pathological volume of nail plate persists and become a constant source of relapses, even during ongoing course of antifungal agents. Since, the diseased nail plate is rough & hyperkeratotic, there are little chances of penetration of topical & oral drugs; hence, debulking the diseased nail plate may increase the chances of drug penetration. Nail avulsion is an invasive procedure

with poor patient compliance and cosmetic acceptance. Ablative lasers have also been found useful in removing the thick onychomycotic nail plate, but cost, availability & uncertain efficacy are the limitations. As the nail is avascular and lacks sensory innervation, it is possible to remove the pathological infected nail plate with the help of micro-motor burs by gradual abrasion done from the dorsal aspect of nail plate towards the nail bed.

The routinely used motorised diamond fraises/burrs may not be appropriate for nail plate debulking; hence, we started using small sized burrs with variable shapes. Dental burrs fulfilled this requirement as they are available in wide range of sizes, shapes & designs. These could be carbide burrs used for cutting and removing the tough part of nail plate; or diamond burrs for fine grinding of nail plate (Fig 6, 7). These are again attached to the micro motor commonly used in hair transplantation and other procedures. The RPM is set at approximately 3000 per minute. A gradual abrasion of nail plate surface is done, starting from the central thick nail part towards the periphery in gradual strokes.

As the device is motorised and powerful, the strokes must be gentle to avoid penetration up to the nail bed. A constant normal saline irrigation over the operated area helps keep the field clean and prevents aerosolization of the infected debris. Lastly, the finishing is done by using the diamond burrs for fine grinding of the abraded nail plate (Fig 8, 9).



Fig 6



Fig 7

The procedure requires no anaesthesia, is quick and

easy, OPD based procedure, gives instant aesthetic improvement, ensures good patient compliance, increases



the penetration of topical agents, and decreases the fungal load. It does not require any dressing or post-operative care.

Acknowledgement: The work and contribution of **Dr Ravi Shankar Jangra, MD**. Senior resident, Department of Dermatology. Maharishi Markandeshwar Institute of Medical Sciences and Research . Mullana Ambala, is great acknowledged. He has a key role in devising these innovations.

Photo Quiz

Q. A 50 year old male presented with yellowish nail plate discoloration with slow growth and thickening of b/l hands and feet nails (as shown in the picture 1&2) for last 6 years. Few nails had onycholysis with partial loss of nail plate. On enquiring, he gave history of chronic cough. There was no other cutaneous or systemic complaints. He was non-smoker. KOH was negative and culture didn't show any fungal growth. X-ray chest didn't show any evidence of pleural effusion. Rest of the hematological and biochemical investigations were non-contributory.

What is your diagnosis?

Answer on Page - 10



CONFERENCE REPORT

4th International Summit on Nail Diseases 23-25th June, 2017, Hotel Divani Caravel, Athens, Greece

The 4th ISND was held in the historical city of Athens, hosted by **Dimitris Rigopoulos**, the founding father of the ISND. It was truly international conference attended by the stellar cast of nail researchers from all over the globe. The event saw participation of 416 delegates and 42 faculty members from 37 countries. Sixty-six E-posters displayed during the conference proceedings. **Dr. Archana Singal and Dr. Chander Grover** were the invited faculty from India.



The Conference began on 23rd June, 5.30pm, with an all-important symposium on Nail Unit Melanoma which is a leading cause of mortality. **M Trakattelli** (Belgium) spoke on various presentations of melanoma of the nail apparatus. **Dong Youn Lee** (Korea) presented histopathological differentiation between subungual melanoma and nail matrix nevus.

J Andre (Belgium) outlined the various histopathological aspects of longitudinal melanonychia. **Robert Baran** (France) made us aware about various non-melanoma causes where a positive Hutchinson's sign may still be seen. **N DiChiacchio** (Brazil) highlighted the role of cosmetically superior functional surgery vis-à-vis conventional amputation in the treatment of nail melanoma with similar long term outcomes.

This was followed by a workshop on Nail examination and fast evolving diagnostics.. **M Starace** (Italy) outlined the basic nuances of clinical examination with special emphasis on detailed history (clothings, shoes, hobbies) and examination of skin, mucosae and other body systems to arrive at a presumptive diagnosis. **A Tosti** (USA) discussed the features of non-melanocytic

tumors on dermoscopy, importance of free edge dermoscopy of pigmented lesion and intra-operative dermoscopy of the lesion as at times two pathologies may co-exist e.g. onychomatricoma with Onychomycosis (OM). **D Sgouros** (Greece) discussed dermoscopy of nail melanocytic lesions and described **atypical and pseudo Hutchinson's sign**. Also polychromia in a pigmented band is suggestive of malignant pathology. **A Rubin** (USA) lectured on recent advances in the diagnosis of nail tumors especially the special stains and immune-histochemical markers. **J Andre** (Belgium) outlined the histopathological aspects of Onychopapilloma. This was followed by a brief opening ceremony and welcome dinner.



The second day proceedings began with a session on Onychomycosis. **M Iorizzo** (Switzerland) highlighted the clinical types of Onychomycosis; while **DY Lee** (Korea) compared the various diagnostic methods for this common disease. A compendium of systemic antifungal treatments available and their efficacies was presented by **AK Gupta** (Canada). He also discussed newer oral antifungal agents VT1161 (Tetrazole) and Albaconazole (Triazole) that may soon hot the market.



Importance of sanitization of shoes and socks (60 and 30 degrees for 45 min for dermatophyte and candida respectively) was told that is often overlooked. He defined Terbinafine as gold standard for Dermatophytic OM and emphasized role of topical efinaconazole and tavaborole twice a week for 3 years or more in predisposed population as prophylactic Rx. The emerging role of non-dermatophyte moldin OM and its diagnostic clues was discussed by **A Shemer** (Israel). This was followed by an interesting session chaired by Dr Archana Singal showcasing interesting and challenging nails cases from various parts of the world.



S Chiheb (Morocco) showed interesting nail infections and tumors. **A Singal** (India) showed nail damage as a clue to neuropathy, rare case of Fibrous pseudotumour of digit in subungual location and pyoderma vegetans of nail unit.

C Prevezas (Greece) and **A Lencastre** (Portugal) showed uncommon tumors affecting the nail unit. **S Goettmann** (France) attempted to show otherwise common but therapeutic challenging office cases.

A complete session covered peculiarities of nail disease in special populations. **M. Zaiac** (USA) described the nail clues to systemic diseases while **M Caucasas** (France) focused on nail disorders in elderly. **E Haneke** (Germany) discussed various surgical approaches he had found useful in children. **M Holzberg** (USA) highlighted management of pediatric melanonychia and how benign lentigens, freckle of nail matrix and melanocytic nevi are common as compared to very rare occurrence of melanoma. **A Rubin** (USA) presented the spectrum of histologic changes in this condition. **AK Gupta** (Canada) discussed management of onychomycosis in the presence of various comorbidities.

The session on Nail surgery, chaired by Chander Grover, focused on surgical management of conditions where medical management has not been successful.

E Haneke (Germany) discussed surgical approaches to handle benign nail tumors and pre-op diagnostics prerequisites like X-ray, USG, MRI, bact and fungal cultures, probing, transillumination and dermoscopy. **N DiChiacchio** (Brazil) described the applications of the Super U technique for the treatment of ingrown nail. **C Grover** (India) described the technique and results of various injectable therapies in management of inflammatory nail disorders. **B Richert** (Belgium) discussed importance of surgical debridement in OM presenting with DLSO, yellow streaks, extensive onycholysis and TDO, with medical treatment for optimal outcome

The next session focused on the effects of newer pharmaceutical/ cosmetic agents on the nail structure. **BM Piraccini** (Italy) talked about the drug side-effects on the nails. **I Triantafilopoulou** (Greece) presented a compendium of special nail cosmetic procedures, highlighting newer techniques available commercially. **P Rich** (USA) talked about the new “no-light” gel nail enhancements while **S Gregoriou** (Greece) elaborated on the adverse effects of nail cosmetics.

The day also saw the proceedings of satellite symposia focusing on the effects of biologics on nail psoriasis.

The final day (25th June) began with a session on some lesser known aspects of nail disease. **M Hinshaw** (USA) offered practical pearls while attempting nail unit histology. **A Tosti** (USA) talked about subtle clues pointing towards exogenous and self-induced nail disorders. **CR Daniel** (USA) educated the house about the less recognized entity of the ‘disappearing nail bed’. **MG Trakatelli** (Belgium) spoke on various causes of blue appearing nails while **M Pasch** (The Netherlands) talked about the less recognized sarcoidosis of the nails. The workshop on inflammatory and autoimmune nail diseases saw interesting talks by **M Hinshaw** (USA) on nail lichen planus and **S Chihab** (Morocco) nail involvement in bullous disease. **A Howard** (Australia) showed practical pearls on managing Finger nail. **R Baran** (France) highlighted the queer observation of unilateral nail changes secondary to various cancer therapies in patients with hemiparesis/ CVA.

The workshop on Nail psoriasis had P Rich (USA) speaking on the absence of scarring in nail psoriasis in comparison to nail lichen planus. The topical and systemic treatment modalities were described by **M Pasch** (The Netherlands) and **D Rigopoulos** (Greece).

M Iorizzo (Switzerland) discussed the practical management problems in children, while **B Ruben** (USA) highlighted the Histologic aspects and mimickers of nail psoriasis.

The conference ended on an upbeat note with a spirit of fostering research in the field of nail disorders internationally.

Chander Grover, Archana Singal

21st Annual Meeting of the Council for Nail Disorders (CND)

2nd March, Hotel Hilton, Orlando, Florida

As always, the meeting preceded the **76th Annual Academy of Dermatology** meeting (3-7th March, 2017) in the beautiful city of Orlando. I had the good fortune to attend the meeting graced by the stalwarts of Onychology like **Robert Baran** and **Nardo Zaias**.

The meeting started with the **Nail Basics Session** planned by **Antonella Tosti** and **Martin Zaiac**. The session focused on the treatment of Nail Disorders.



Bianca Piraccini summarized five facts about nail therapy which one should know, highlighting that treatment results in the nail are slow and this needs to be clearly conveyed to patients.

Dimitris Rigopoulos, President of CND summarized the treatment advances in nail psoriasis emphasizing recent advances with newer biologics. **Michela Starace** talked about nail lichen planus summarizing that dermoscopy can be useful in diagnosis. Brittle nails were discussed by **Matilde Iorizzo**. She talked about the various morphological types including split nails, flaky nails and crumbling nails. Apart from primary preventive measures, the role of oral biotin, moisturizers and daily lacquer (hydroxypropyl chi-

tosan) was discussed. **Evan Reider** talked about self-induced nail disorders including onychophagia and onychotillomania. The high prevalence coupled with a need to recognize them early was discussed.

Onychomycosis was dealt with by **Boni Elewski** and **Phoebe Rich** discussing the current scenario and future possibilities respectively. Boni Elewski introduced an interesting concept of “Fungal Fridays” to make her patients remember to take their weekly doses. Phoebe Rich talked about the possibility of fungal vaccines being developed in the distant future. **Adam Rubin** discussed the diagnostic as well as therapeutic challenges in children with nail diseases. He emphasized the disorders which may self improve and when not to intervene. **Shari Lipner** talked about special consideration in the elderly including challenges with respect to oral or topical therapy. **Martin Zaiac** gave a video presentation about injectable steroids in the proximal nail fold. The technique of injection with the insulin needle was demonstrated. **Nilton Gioia** talked about small tips to ensure painless anesthesia including injecting slowly, using 30G needle and use of distraction techniques. **Nilton Di Chaiacchio** talked about ingrowing toe nail in a comprehensive coverage of the topic describing



different types of ingrown nails. **Tracy Vlahovic** talked in detail about pincer nail. She educated the participants about the Curvature Index. Surgical methods included the Zigzag nail bed flap and the Inverted T incision (Modified Haneke). **Antonella Tosti** showed good results with Bleomycin used for treating periungual warts. Subsequently, I (**Chander Grover**) talked about

chemical peeling in superficial nail abnormalities and in melanonychia. The attempt was to highlight an easy, non-invasive treatment modality for patients requiring treatment for nail plate irregularities. **Gabriella Fabroccini** shared her experience with photodynamic therapy especially in recalcitrant onychomycosis.

Nathaneil Jellinek, Secretary, CND and **Daniela Gutierrez** deliberated in detail about nail biopsy and its various techniques. Jellinek apprised regarding the tangential matrix excision for a pigmented lesion. Daniela talked about various sites of nail biopsy emphasizing the need for 3 mm punches. **C Ralph Daniel** talked about paronychia and onycholysis emphasizing in detail about their staging and its role in management.

The afternoon sessions started with detailed reports of CND year long activities by the President and the Treasurer. **Adam Rubin** presented a synopsis of the latest trends in literature pertaining to onychomycosis. **Antonella Tosti** presented interesting studies about non-inflammatory nail diseases including contact dermatitis, auto-immune bullous disease and trachyonychia. An increasing prevalence of contact dermatitis to acrylic nails was discussed. She also talked about the role of Tofacitinib (JAK inhibitor) given at 5 mg bd for Trachyonychia. **Shari Lipner** talked about latest literature about Nail tumors. Regarding glomus tumors, a “pink glow” has been described as a diagnostic sign on dermoscopy (UV light). **Molly Hinshaw** talked about recent advances in Nail Surgery. The single best agent of choice for anesthesia was Ropivacaine because of its neutral pH, long time of action, minimal discomfort and vasoconstricting effect. Also the single volar injection (not transthecal) was found to be better than the two lateral injections given.

The first **key note lecture** was delivered by none other than **Robert Baran** who talked about Leukonychia: Types and Causes. Many aspects of leukonychia were discussed in detail. This was followed by a series of panel discussions cum debates. The pros and cons of topical vs intralesional vs systemic therapy for nail psoriasis were discussed by **Dimitris Rigopoulos**, **Chris Adigun** and **Robert Baran** respectively. Candidates for systemic therapy were patients with moderate to severe nail psoriasis (marked nail dystrophy involving more than two nails) or a significant functional impairment. The role of biologics and apremilast was also highlighted. **Bianca Piraccini & Boni Elewski** talked about the various aspects of topical vs systemic therapy in onychomycosis. The negative inotropic effect of itraconazole and the subsequent need for cau-

tion in those prone to heart failure was discussed. **C Ralph Daniel & Nilton Chiacchio** deliberated upon phenol vs other possible surgical therapies of ingrown toe nail. Daniel talked about the role of soaks and topical steroids for 1-2 weeks to “cool the nail down” while Chiachio deliberated that different types and degrees of ingrown need different management strategies. **Dong Youn Lee** presented his study on histo-pathologic evaluation of nail plate specimen in malignant melanoma, showing presence of variable sized melanocytes within the nail plate providing possible evidence for melanoma.

The second **key note lecture** was by eminent onychologist **Nardo Zaias** who explained the linear lesions in nail bed. He highlighted that the presence of nail bed matrix (a collection of stem cells under the lunula) could explain distal splits in conditions like Darier’s disease which involve the nail bed seen as erythronychia. The meeting ended with a vote of thanks from the Secretary cum Treasurer and was followed by the Board meeting of CND.

Chander Grover.

Excerpts from Nail Literature

NAIL: WHAT'S NEW?

Dermoscopy in evaluation of nail disorders. Alessandrini A, Starace M, Piraccini BM
Skin Appendage Disorder 2017; 3:70-82

Nail dermoscopy may be of the dry type, used for evaluation of nail plate surface and the wet type which uses a gel interface for nail pigmentation, onycholysis, distal nail margin, periungual fold and hyponychium. Proximal nail fold capillary alteration is frequently seen in connective tissue disorders, usually on 3rd or 4th finger avoiding the thumb. Three diagnostic patterns are seen (1) normal (2) scleroderma (3) non-specific. These changes may be present as a precursor of disease and help to monitor response to treatment. In dermatomyositis, 75% patients have capillary changes, most typical being tortuous and arborescent capillaries. There is lower specificity in SLE showing tortuous loops with serpiginous appearance, stretched loops, odd shape and greater visibility of venous plexus (increased diameter). Pyogenic granuloma- principal finding is vascular pattern with red discoloration, milky red veil and regular pattern of vessels. Warts-small periungual warts not visible to eye are seen as well demarcated hyperkeratotic and rough lesions with regular micro papules, collarlet and small black dots (dilated capillaries of papillary dermis)

Nail plate- it reflects the proximal nail matrix damage.

Trachyonychia shows multiple fine and superficial longitudinal fissures and small scales, the shiny variety shows superficial ridging and plenty of small geometric pits.

Longitudinal fissuring and distal splitting- it is typical of nail matrix lichen planus. On dermoscopy, multiple deep long fissures reaching distally with partial absence of nail plate. It is useful in follow up where proximal nail plate re-growth may be seen

Pitting – broadly two types are psoriatic and lichen planus. Psoriasis-the pits are large, deep and irregular in shape, size and distribution with large scales. Lichen planus- the pits are regular, superficial and homogeneous with geometric pitting.

Nail fragility- dermoscopy has classified it into three types

1. Lamellar onychoschizia (horizontal split) of distal plate with irregular edge
2. Onychorhexis- multiple longitudinal fissures of distal edge
3. Keratin degranulation- small regular scales firmly attached to distal nail plate

Comment– Dermoscopy is a useful tool in diagnosis and monitoring response to therapy. Its use in nail disorders has been explained well to help understand its role in various conditions involving the nail.

An International survey about nail histology processing techniques. Wlodek C, Lecerf P, Andre J, Ruben BS, de Berker D.J
Cutan Pathol. 2017 Jun 7. Doi: 10.1111/cup. 12976 [Epub ahead of print]

An online survey was performed by the European Nail society and Council for Nail disorders . The nail specimens received were embedded in paraffin wax . Nail softening was performed . Hematoxylin and eosin (H&E) was routinely done for all biopsies and Periodic acid Schiff (PAS) 100% for fungus (15/15). The preferred stain for differentiating melanin and hemoglobin was Fontana Mason 60% (6/10). Melan-A was used by all respondents for pigmented nail lesions. (9/9).

Comment: This article highlights the limited data on nail histopathology techniques. There is lacuna in data regarding a nail biopsy which is confirmatory in diagnosis yet still not performed at many. It is an under utilized diagnostic modality which needs further documentation.

Efficacy and safety of Luliconazole 5% nail solution for the treatment of onychomycosis: A multicenter, double-blind, randomized phase III study. Shinichi W, Hiroshi K, Akihiro O. J of Dermatol 2017; 10: 1-7

A total of 293 patients were included and randomized 2:1 into luliconazole group (n=194) and vehicle (n=99).

Amongst them, 174/194 of luliconazole group (20 dropouts) and 93/99 of vehicle (6 dropouts) completed the study. In the luliconazole group; 4/20 dropouts had poor response or worsening of symptoms, 12/20 had adverse events, laboratory tests were not performed in 3/20 and non compliance in 1/20 patients. In the vehicle group; 2/6 reported worsening, 2/6 reported adverse events and in 2/6 laboratory tests were not performed. The primary end point for complete cure was clinical improvement and mycological cure (by direct microscopy). Complete clinical cure was seen in 14.9% (29/194) in luliconazole group Vs 5.1% (5/99) in vehicle group (p=0.012).

Comment: Luliconazole 5% solution showed statistically significant improvement in 14.9% patients (Vs 5.1% vehicle) with complete cure in 48 weeks of daily therapy. The complete cure rates could possibly be improved with additional oral antifungal. A longer follow up would be needed to observe for any recurrences.

Cosmetically induced disorders of nail with update on contemporary nail manicures.

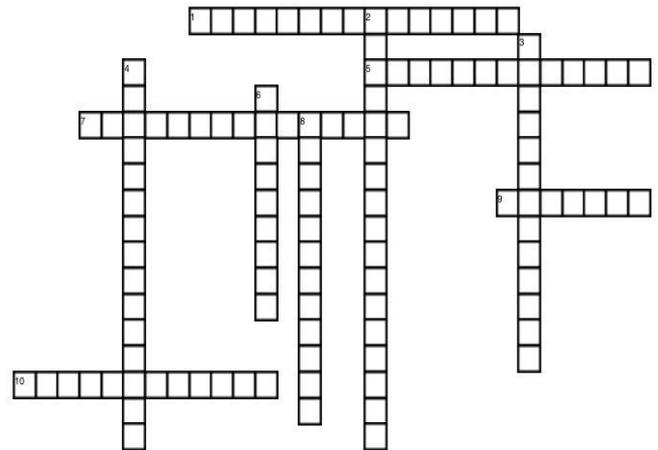
Rieder EA, Tosti A. J Clin Aesthet Dermatol 2016 Apr; 9 (4): 39-44

This review focuses on nail disorders caused by cosmetic procedures used to beautify nails, specially focusing on clinical presentations which are common, underreported and maybe misdiagnosed. The known risk of **manicure related infection**(bacterial/fungal/mycobacterial/viral such as HPV, HSV2) is due to inadequately sterilized equipment like clippers, blades, files and footbaths. **Micro and macrotrauma** may result from cleaning/ filing/trimming cuticle. Nail polish and enhancers are **contact sensitizers** and use of other chemicals such as acrylates, formaldehyde, toluene sulphonamide formaldehyde resin may lead to **contact dermatitis and chronic paronychia**. Primers and polish removers (solvents) cause **dry nails and brittleness**. **Discolouration** of nail plate is the most common sequelae due to staining of keratin (red/ yellow) usually seen if pigmented nail polish is left for >1 week and usually resolves within 2 weeks. **Traumatic onycholysis** is separation of nail plate from nail bed due to disruption of onychodermal band called as roller coaster nails- characterized by proximal border of onycholytic plate assuming oscillating pattern. It may be associated with chronic paronychia commonly seen with acrylic nail extensions. **Keratin degranulation** occurs upon nail polish application and removal, clinically seen as white striations, macules and patches. Dermoscopically, the white areas

correspond to exfoliation in nail plate. **Contact dermatitis** can develop with acrylate nails with positive patch test to methacrylates, **nail dystrophy, onycholysis and paronychia** have been reported. Peripheral neuropathy can occur with a positive patch test to methacrylates. Worn down nails (overfilled) is seen as distal thinning with triangular or half moon morphology, extending distally from mid plate forming mirror image of lunula with linear striations. On dermoscopy dilated capillaries and pinpoint hemorrhages can be seen. **Pseudo psoriatic nails** occurs with acrylic nails characterized by onycholysis and severe subungual hyperkeratosis. Gel manicure is firmly adherent, the removal of which is associated with generalized **nail thinning, weak, brittle nails, pseudoleukonychia, onychoschizia** and predispose to inadequate oxygenation of nail bed.

**Compiled by:-Dr. Neha Kumar
Specialist, Dept of Skin & STD,
VMHC & Safdarjung Hospital, New Delhi.**

NAIL MAZE



ACROSS

- 1 Single band of longitudinal erythronychia is most commonly due to
- 5 Nail pathology caused by coxsackie virus infection in children
- 7 Pachyonychia congenita has this nail finding
- 9 Longitudinal erythronychia is due to the involvement of
- 10 Classical nail finding in Laugier-Hunziker syndrome

DOWN

- 2 Pattern of onychomycosis which may indicate underlying HIV
- 3 Onychoschizia is due to
- 4 Beehive appearance of distal margin of the nail is due to
- 6 Green pigmentation of nails due to pseudomonas colonisation is by pigment
- 8 Brown black pigmentation of periungual skin in melanoma of nail is called

Compiled by:

Dr. Payal Yadav

Please mail your answers to nailsocietyofindia@gmail.com. Prize winners will be announced in the next issue of Onychoscope.

Solution to the Nail Maze from Onychoscope Vol. 6, Issue 1, January 2017

Across

1. Multiple brown streaks are characteristic of –
laugierhunikersyndrome.

Down

1. Onychochaxis (thick nail) is seen –**psoriasis.**
2. Angelwing deformity is seen –**lichenplanus.**
3. Treatment with podophyllin –**brown nails.**
4. Triangular lunula is seen in –**nailpatella.**
5. Red longitudinal streak (erthronycha) is seen –
onychopapilloma.
6. Blue nail is seen in –**minocycline.**
7. Azure lunula is seen in –**wilson disease.**
8. Embedding of nailfold with subsequent inflammation is called –**retronychia.**
9. Wedge shaped nail dystrophy is seen in –**pachyonychia.**

No correct Entries were received this time.



6th ONYCHOCON

Annual National Conference of
Nail Society of India
4-5TH November 2017



Organised by:

Department of Dermatology
Government Medical College
Amritsar, Punjab.

Venue : College Auditorium

www.nailsocietyindia.com

Answer to Photo Quiz

Yellow Nail Syndrome

Yellow nail syndrome (YNS) is a rare disorder occurring after 50 years of age with no sex predilection. YNS is diagnosed based on a triad (2 out of 3 should be present): yellow nail discoloration, pulmonary manifestations (chronic cough, bronchiectasia, pleural effusion) and lower limb lymphedema. Complete triad is present in 27-60% of patients. Chronic sinusitis is frequently associated with the triad. Yellow nails are the main feature usually associated with thickening, hardening (difficult to trim) and over curved of nail plate. Nail growth is reduced and onycholysis leading to partial or complete nail shedding may also be observed. Chronic cough is the most frequent pulmonary manifestation. Pleural effusion is reported in 14-46% of patients. Bronchiectasia are seen in around 44% of the patients. Lymphedema usually involving lower limbs is seen in 29-80% of the patients.

Pathogenesis: It remains unknown shown role of lymphatic impairment is usually evoked. More recently role of titanium ions (tooth implants, joint implants, surgical staples, chewing gum, sunscreens, etc) has been hypothesised.

Treatment: 1/3 of cases resolve on their own irrespective of treatment. Oral vitamin E (1000-1200 IU/day) is the only successfully used treatment. The success of antifungals in isolated case reports has been attributed to stimulation of linear nail growth. Pleural effusion can be treated surgically. Lymphedema treatment is based on low-stretch bandages and the wearing of elastic compression garments.



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