YUVA DERMA E-BULLETIN

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YUVADERMA E-BULLETIN
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EDITOR'S NICHE

"Any fool can know. The point is to understand."

- Albert Einstein

We know there's no dearth for information available today due to scientific advances. But applying the information acquired into practice requires a deeper understanding of the subject.

Here we bring to you the 15th edition of Yuvaderma e-bulletin with a fresh entree of topics, not just limited to the subject but also related to current practices. We have taken a special interest in aesthetic dermatology in this current edition and introducing its nuances to the post graduates. We have articles on botox and neuromodulators for beginners and an article introducing fat filler grafting. Keeping up with the ever growing field, we have articles highlighting the uses and downside of nail cosmetics which a rapidly growing industry in the current times.

Keeping the non-academic interests alive while pursuing their academic endeavour is essential for a fulfilling life. We at Yuvaderma encourage non-academic articles, poems and art to keep this fire alive in an otherwise mundane life. Our non academic section has poems along with a few photographs. I

would like to thank Dr. Ravi Rathod and Dr. P Jayanth for giving me this opportunity to head the editorial team that I was an integral part of for the last 4 years.I wholeheartedly thank my team for their efforts in bringing this edition to its conclusion. I thank Dr Sanjay for being a great advisor. I also thank all the residents who sent their articles and made this edition a success.

HAPPY READING FOLKS!

Regards,

Dr. Priyanka Karagaiah

Editor in chief

Yuvaderma E-Bulletin

TREASURY

DR RAVI RATHOD
PRESIDENT

PRESIDENT'S PREAMBLE

Greetings to all young budding Dermatologists

At the outset it gives me immense pleasure to write this message as the President of IADVL Karnataka

Yuvaderma E-bulletin is the brainchild of IADVL, Karnataka which was started in 2016, thanks to the then IADVL president late Dr. Umashankar.

This bi- yearly bulletin has become hugely popular mainly among young dermatologists not only in Karnataka, but all over India.

The hard work put by the editorial team is evident by quality articles published in the bulletin with great deal of professionalism.

I wish, 15th edition of this bulletin is going to be one of the most useful scientific publication and hope that it will benefit everyone academically and prompt more and more youngsters to contribute to the bulletin.

Wishing all the very best
Regards,
Dr Ravi Rathod
President, IADVL Karnataka

DR D P JAYANTH
HON. SECRETARY

FROM THE SECRETARY'S DESK

Dear residents,

Karnataka has 60 medical colleges and produces more than 300 dermatologists per year. Young residents are the backbone of Dermatology departments.

In this regard, Yuvaderma journal edited by Dr Priyanka Karagiah and team represents the issues and aspirations of the new generation. IADVL Karnataka Academy is conducting a Resimed online training program. This is in line with the Skill India mission of the Central government.

India has a huge demographic dividend (young population). If they are provided the right support and guidance, they can carry forward the legacy of Indian Dermatology. At present, India has 4 dermatologists per lakh population. Hence, the ability and skill set of each and every dermatologist adds value to society.

Residents must utilise every opportunity to learn and upgrade their skills. Hybrid learning is the norm. Yet clinical examination of patients guided by experienced faculty has no substitute. Hence, I request residents to attend Derma basics and Derma advance personally.

Editorial team has brought out a fine journal with good academic content. I wish them and all the young residents a bright future !

Long live IADVL!
With regards,
DR D P JAYANTH
Honorary Secretary
IADVL Karnataka 2021-2023.

DR SANJAY THEJASWI R
ADVISOR

ADVISOR SPEAKS

The Journey of a thousand miles begins with a single step Confucius Every resident, whose articles grace the pages of Yuvaderma journal, have travelled a Journey unique to their own lives. Each Journey is marked by hard work and diligence, but more so by grit and determination. Pushing forward against the tides of time, all the contributors have cast their creations as their dice, ensconced in fact, shrouded in dedication and have crossed the fires of review.

The current edition takes us to procedural dermatology with the basics of Botox and fat fillers. It also has academic and nonacademic poems brimming with the writer's creativity. A sincere appreciation to the Editor in chief Dr. Priyanka Karagiah who has bought out the journal with collective information.

I would like to render my humble thanks to the Honarary General Secretary Dr. D P Jayanth for the constant support and I also wish to thank our President Dr. Ravi M Rathod for the steady guidance.

The zest of life, lies is zeal and curiosity, leaving upto the readers to unreveal the new edition and to conquer the knowledge.

Dr. Sanjay Thejaswi R
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A Beginners Guide to Botulinum Toxin and Its Use

Botulinum toxin, a deadly neurotoxin produced by the bacteria Clostridium botulinum, was initially known for its devastating effects. Since time immemorial, it has been associated with food-borne botulism and the dreaded floppy-baby syndrome. Such are its properties, that it was developed as a biological weapon during World War II.

However, in the late 1960s and early 1970s, Dr Alan Scott tested its clinical potential in strabismus and blepharospasm in animal models and by 1989 it had received FDA approval for the same. Allergan bought over Dr Scott's company 'Oculinum', rebranded the molecule as Botox, and its exponential marketing and use has cemented its use as one of the pillars in anti-ageing treatments in the world.

Botox, which was approved by the US FDA in 2002 for the treatment of glabellar rhytids, has gone on to receive approval for 20 indications in more than 75 countries. Most commonly and popularly known for its cosmetic potential, botulinum toxin has also been FDA approved for chronic migraine, cervical dystonia, hyperhidrosis, stress urinary incontinence and lower limb spasticity.

Mechanism of Action

C. botulinum produces eight antigenically distinguishable exotoxins (A, B, C 1, C 2, D, E, F and G). Type A is the most potent toxin, followed by types B and F toxin.

All the serotypes inhibit neural transmission by blocking the release of acetylcholine, which is the principal neurotransmitter at the neuromuscular junction. Intramuscular administration of botulinum toxin acts at the neuromuscular junction to cause muscle paralysis by inhibiting the release of acetylcholine from presynaptic motor neurons.

Botulinum toxins act at four different sites in the body: The neuromuscular junction, autonomic ganglia, postganglionic parasympathetic nerve endings and postganglionic sympathetic nerve endings that release acetylcholine.

The heavy chain of the toxin (Figure1) binds selectively and irreversibly to high affinity receptors at the presynaptic surface

of cholinergic neurones. Then, the toxin-receptor complex is taken up into the cell by endocytosis. The disulphide bond between the two chains is cleaved and the toxin escapes into the cytoplasm. The light chain interacts with different proteins (synaptosomal associated protein (SNAP) 25, vesicle associated membrane protein and syntaxin) in the nerve terminals to prevent fusion of acetylcholine vesicles with the cell membrane (Figure2).

The peak of the paralytic effect occurs four to seven days after injection.

Doses of all commercially available botulinum toxins are expressed in terms of units of biologic activity. One unit of botulinum toxin corresponds to the calculated median intraperitoneal lethal dose (LD 50) in female Swiss-Webster mice. The affected nerve terminals do not degenerate, but the blockage of neurotransmitter release is irreversible. Function usually recovers in three to four months by the sprouting of nerve terminals and formation of new synaptic contacts.

Fig 1: Structure of Botulinum Toxin

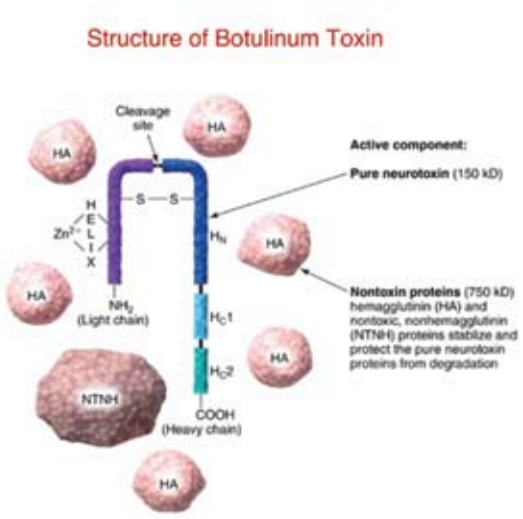
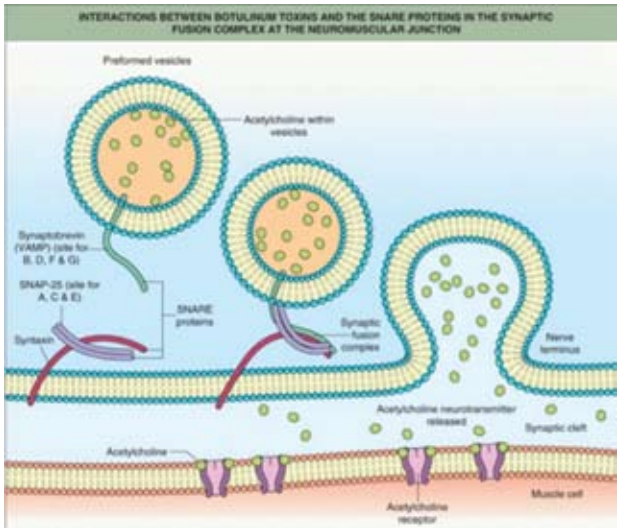


Figure 2: Site of action of Botulinum Toxin



Preparations and source of Botulinum toxin				
Name	**Neurotoxin**	**Availability**	**Manufacturing Company**	**FDA Approval for Cosmetic purposes**
Botox	OnabotulinumtoxinA	50units, 100units, 200units	Allergan	Glabellar Lines, Crows Feet, Forehead lines
Dysport	AbobotulinumtoxinA	300units, 500units	Galderma	Glabellar Lines
Xeomin	IncobotulinumtoxinA	50units, 100units	Merz Aesthetics	Glabellar Lines
Jeuveau	PrabotulinumtoxinA	100units	Evolus Inc	Glabellar Lines
Daxxify	DaxibotulinumtoxinA	100units	Revance Aesthetics	Glabellar lines

Storage and Reconstitution

Vacuum-dried powdered botulinum toxin A should be frozen at -5°C until it is ready to be diluted with preservative free normal saline and administered.

Ideally, reconstitution should be done few hours prior to use with 0.9% sterile preserved, saline solution. Nonetheless, some studies showed that botulinum toxin A remains safe and effective for 2 to 6 weeks after reconstitution. Reconstituted vials should be kept refrigerated at 2- 8°C at all times.

Dilution

Different dilutions are used worldwide by different physicians. In general, a higher concentration allows for more accurate placement and, therefore, greater duration of effect and fewer side effects. This is recommended for areas like the face. Lower concentrations will encourage the spread of the toxin. This is recommended for larger areas like the palms, soles, underarms. However, the most recommended dilution is with 2.5ml saline for 100units of onabotulinum toxin A and 3ml saline dilution for 300units abobotulinum toxin A. This makes the ease of injection with insulin syringes easier where one insulin unit is equivalent to one unit of reconstituted botulinum toxin. It is important to remember that one unit of onabotulinum toxinA has a potency of 3 units of abobotulinum toxin A.

Injection

Botulinum toxin is injected into affected muscles or glands using a 30-gauge 1/2-inch needle. Doses are tailored according to the mode of use and individual patients, and the dose depends on the mass of muscle being injected. The larger the muscle mass the higher the dose required. However, lower doses may be required in patients with pre-existing muscle weakness and in females.

Suggested total doses of botulinum toxin A based on the consensus for Botox dosage and other publications are 10- 40 U for glabella, 10-30 U for periorbital area, and 6-15 U for forehead. Patients must remain in the vertical position and avoid intense physical exercise and manipulating the injected area for at least 4 hours after injections.

Technique (refer figure 3 for injection points)

We'll be discussing the FDA approved indications of botulinum toxin for minimising rhytids.

Glabellar Lines : Multiple injections (5 or 3 points) of relatively concentrated doses and low volumes are placed in the procerus and the corrugators to treat this area. Intramuscular injection of toxin at the midpoint of an imaginary "X" formed by the lines joining the inner brows and the contralateral inner canthus, into the procerus are done. After palpating the medial aspect of the eyebrow as the patient squints and frowns, 6-8units of the toxin is slowly injected into the belly of the corrugator muscle, keeping the needle tip pointed upward and away from the globe, at a distance of approximately 1 cm superior to the orbital rim. The injection points should not cross lateral to the mid-pupillary line.

Crows Feet : Injections should be placed superficially into the dermis, forming a wheal at the injection site. It is injected 1 cm lateral to the orbital rim at three sites (2-4 U/site) overlying the lateral fibres of the orbicularis oculi muscle. The injections are given with the needle bevel tip pointed up and oriented away from the eye.

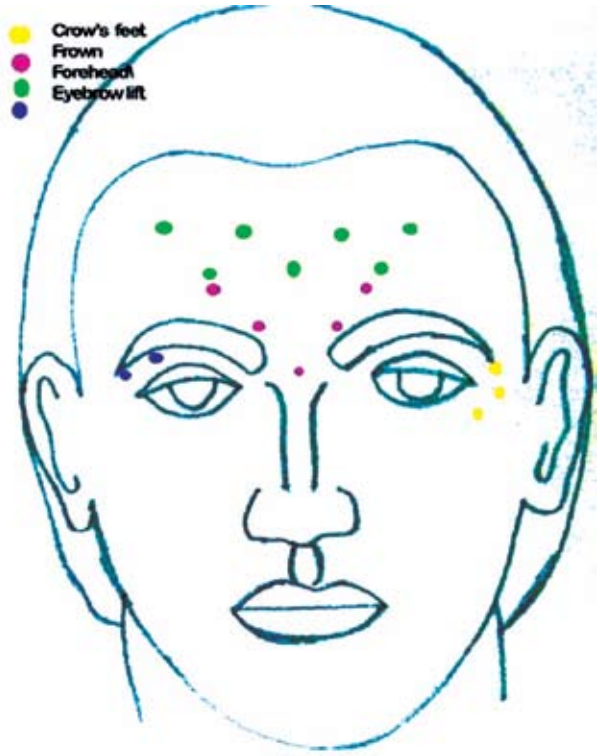
Forehead Lines : Injection points should be marked and then 1-2units of toxin should be placed subcutaneously or intramuscularly, at 1.5-2-cm intervals on either side of a deep crease in a "V'', “M” or horizontal configuration, starting approximately 1 cm above the eyebrows and finishing at the hairline. Muscle activity should be assessed prior to injection and the injection points marked accordingly.

Three to four sites can be injected on either side of the midline for a total of six to eight sites for an entire forehead.

One finger breadth area above the orbital ridge lateral to the mid papillary line should be avoided.

Lateral Brow Lift : Elevation of only the lateral brow can be achieved by selectively treating the lateral brow depressors, i.e., the lateral fibres of the orbicularis oculi muscle. 2-3units injected sub-dermally here will elevate the lateral brow.

Figure 3: Pictorial representation of injection points for botulinum toxin



Contraindications

Contraindications for botulinum toxin include pre-existing neuromuscular disorders (e.g. myasthenia gravis and amyotrophic lateral sclerosis); local infection at the expected injection site; known hypersensitivity to any component of the formulation; pregnancy; lactation; patients taking concomitant aminoglycosides or other substances interfering with neuromuscular transmission (e.g., curare-type non-depolarizing blockers, quinidine, magnesium sulphate, and succinylcholine) and patients with psychiatric disorders.

Complications	
Non-Muscular Complications	Management
Bruising	Prior icing, injecting intradermally, using a fresh needle every 4-5 pricks, stopping blood thinners 3 days before injections
Pain	Prior icing, use of topical anaesthesia prior to injection
Hypoesthesia	Temporary and self-resolving
Cutaneous Infections	Prior detailed history and maintaining aseptic precautions
Dry Skin and flakiness	Topical Moisturisers
Headache and heaviness	Oral pain killers

Muscle Paralysis	Reason	Prevention	Management
Lid Ptosis while injecting Glabellar Lines	Migration of toxin via orbital septum into Levator Palpebrae Superioris muscle	● Lesser dilution of toxin and smaller volume injections ● Grasp the corrugator muscles while injecting ● Placing injections 1cm above level of supra-orbital ridge	Apraclonidine 0.5% with Phenylephrine 0.25% eyedrops, 2-3 times a day. Helps stimulate Mullers muscle
Transient Strabismus while injecting Crows Feet	Diffusion of toxin into orbital muscles-lateral recti	● Small Volume injections ● Facing needle away from the orbit while injecting ● Placing a finger against orbital rim while injecting to reduce risk of diffusion	Refer to ophthalmologist
Brow Malposition while injecting Forehead Lines	Imbalance of forehead muscle elevators and depressors	Treating both lateral and medial aspects of forehead conservatively	Touch up toxin injections to balance muscle activity after 2 weeks

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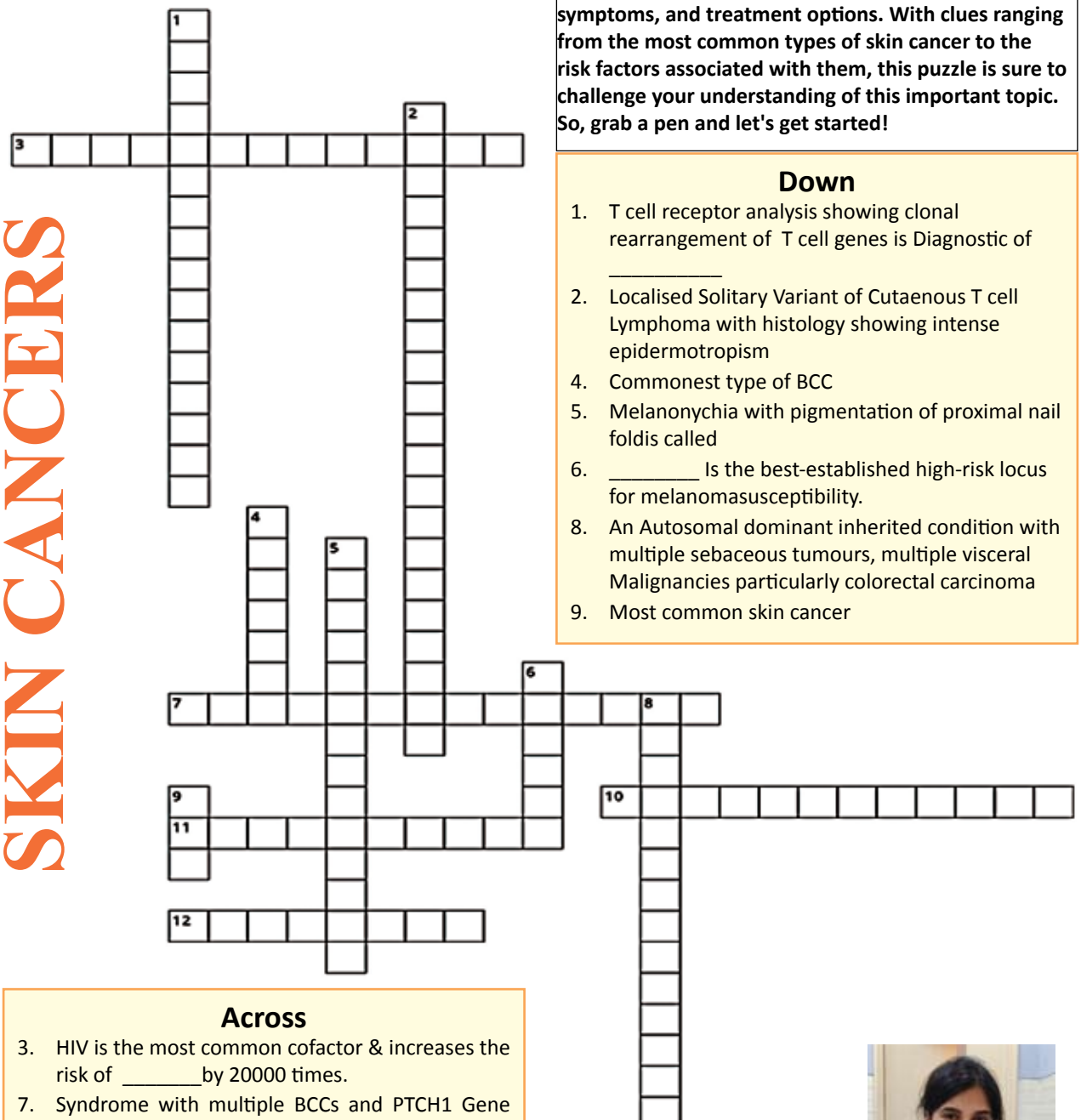
CROSSWORDS

SKIN CANCERS

Get ready to flex your brain muscle, and solve this skin cancer puzzle!
On occasion of skin cancer awareness month, this crossword puzzle is designed to test your knowledge about the different types of skin cancer, their causes, symptoms, and treatment options. With clues ranging from the most common types of skin cancer to the risk factors associated with them, this puzzle is sure to challenge your understanding of this important topic. So, grab a pen and let's get started!



Down

1. T cell receptor analysis showing clonal rearrangement of T cell genes is Diagnostic of _____
2. Localised Solitary Variant of Cutaenous T cell Lymphoma with histology showing intense epidermotropism
4. Commonest type of BCC
5. Melanonychia with pigmentation of proximal nail foldis called
6. _____ Is the best-established high-risk locus for melanomasusceptibility.
8. An Autosomal dominant inherited condition with multiple sebaceous tumours, multiple visceral Malignancies particularly colorectal carcinoma
9. Most common skin cancer

Across

3. HIV is the most common cofactor & increases the risk of _____by 20000 times.
7. Syndrome with multiple BCCs and PTCH1 Gene mutation.
10. Best Prognostic factor for melanoma is
11. Jigsaw puzzle appearance is seen in
12. Actinic Keratosis is associated with Mutation of which gene

Dr. Jinisha Anand Jain
Assistant Editor
Yuvaderma

FAT FILLER IN DERMATOLOGY

Autologous fat transfer (AFT), also known as fat filler or lipofilling is an advent in dermatology with a wide scope and numerous applications. Tissue volumization and the regenerative potential of autologous fat is being optimally used especially in acne scars and lipoatrophy. AFT has a potential for long lasting results which adds to its value in comparison to other volumization techniques (eg: soft tissue fillers-hyaluronic acid fillers).

The first documented use of AFT traces back to 1893 when Neuber transplanted multiple 1cm fat grafts from the arm to fill atrophy caused secondary to tuberculosis. [1] In 1987, Klein introduced tumescent anaesthesia which now is the backbone of effective liposuction.[2] William Coleman in 1993 described 'lipolytic dermal augmentation' suggesting that mechanically processed fat when injected intradermally resulted in neocollagenesis which revolutionised the field of regenerative medicine.[3]

Human body fat is primarily of three types :

white fat (most common), brown fat (predominantly seen in infants) and beige fat. The highest yield of stem cell components is present in brown fat.

Adipose tissue has the following components: [4,5]

1) Adipocytes
2) Extra cellular matrix: Collagen, fibronectin, and laminin.
3) Stromal vascular fraction (SVF):

a. Adipocytes, fibroblasts, smooth muscle cells, endothelial cells etc.,
b. Endothelial progenitor cells, pre-adipocytes, vascular progenitors, hematopoietic progenitors
c. **Stem cells :** Mesenchymal stem cells, hematopoietic stem cells etc.,

Types of fat :

1) Macrofat :

a. Harvested with cannula having hole size grater than 2.4 mm.
b. Used when large volumes of fat have to be transferred eg: breast and buttocks.

2) Millifat :

a. Harvested with cannula having hole size of 2.4 mm.
b. Used mainly for volumizing the face at sites such as malar areas, temple, mandibles etc.

3) Microfat :

a. Harvested with cannula having hole size of 1.2-2.4 mm which is further passed through an emulsifier or a three-way connector.

b. Useful for fat grafting in superficial areas like forehead, eyelids, perioral areas, hands and for acne scars.

4) Nanofat :

a. When fat is passed through emulsifiers sequentially, it is broken down into smaller particles called nano fat with a diameter of 400-600 um.

b. Passing the fat through emulsifiers leads to a mixture of adipocytes, trighycerides and SVF.

5) Stromal vascular fraction :

a. Mechanical or enzymatic emulsion of fat when further subjected to centrifugation or sedimentation leads to separation of oil and a pellet at the bottom containing SVF.

Common indications of fat transfer in dermatology:

1) Facial contouring
2) Acne scars
3) Lipoatrophies (secondary to drugs, HIV infection, lupus panniculitis)
4) Morphea
5) Atrophic scars
6) Ectodermal dysplasias

It is pertinent to note that fat transfer requires high standards of sterilisation and disinfection as infection and fat necrosis are common complications.

Step-1 : Administration of tumescent anaesthesia. Tumescent solution is prepared using Klein's formula : 500 ml of normal saline, 20 ml of 2% lignocaine, 0.5 ml of 1:1000 adrenaline and 2 ml of sodium bicarbonate. Common sites for liposuction include waist, lower abdomen, hips and inner thigh. The entry point for introducing tumescent solution is created with a No. 11 blade. A harvesting cannula is used for introducing tumescent anaesthesia (80-100 ml) along subcutaneous plane.

Step-2 : Liposuction/Fat harvesting: Harvesting cannulas with hole size ranging from 1.2 to 2.4 cm attached to 10/20/50 cc syringes and liposuction is performed under constant negative pressure. Usually, 15-20 cc of fat is harvested for volumizing bilateral cheeks. After fat harvesting the donor area is dressed with a compression dressing.

Step-3 : Fat processing : Decantation is a process of separation of tumescent fluid from the fat by keeping the syringes vertically upside down. The tumescent solution settles at the bottom which is discarded. Certain commercially available kits with a sterile sieve are also available to wash the fat. Centrifugation is then done at 3000 rpm for 3 mins to further concentrate the fat. Microfat is prepared by emulsifying the fat by passing it 3-4 times through a three-way connector between two syringes. For preparing nanofat, the fat should be beaten 30-40 times through the three-way connector.

Step-4: Fat injection/grafting: The knowledge of facial fat compartments and volume of fat normally present in each is essential for optimum results. In case of acne scars the fat is injected just below the scars at subcutis level and above the SMAS. A blunt 22G cannula is ideal for injecting fat. Nanofat and SVF have tremendous regenerative potential resulting in overall improvement in scar texture and contour overtime.

Complications of AFT:

1) **Donor area :** ecchymosis, pain, blistering, surface irregularities.
2) **Recipient area :** erythema, overfilling, vascular obstruction.

Points to note :

1) Proper patient counselling pertaining to exact plan of procedure, expectations, side-effects etc., must be done. Numerous myths and facts are associated with liposuction and must be addressed.
2) Pre and post operative photographs are required for follow-up and evaluation. Over or under correction and defects can be assessed by utilizing facial analytical software and artificial intelligence.
3) Post fat filler, ablative energy-based procedures or acne scar surgeries should not be performed for a period of 6 months as the dermal tissue is in a state of remodelling.

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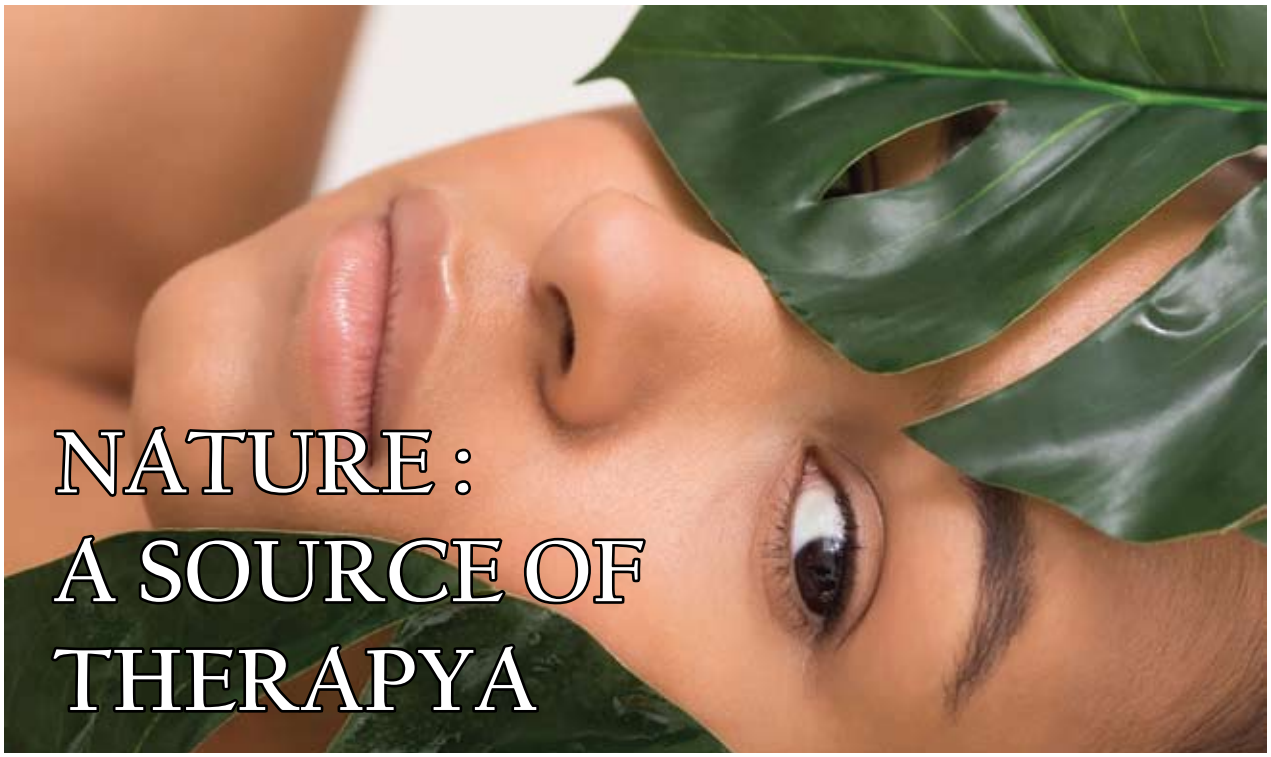

NATURE : A SOURCE OF THERAPYA

Nature, the craftsman of molecules is an infinite resource for efficacious drug development for a multitude of disease indications and other valuable bioactive agents. In addition to the direct medicinal application as drug entities, many natural products serve as chemical models or templates for the design and synthesis of novel substances for treating diseases. Even though popularity of synthetic products has increased due to its production cost, time effectiveness, easy quality control and quick effects, many natural products have been the drugs of choice despite facing a tough competition from compounds derived from computational and combinatorial chemistry, due to their safety and efficacy.[1] This article highlights few plants and microbes which have been a source of drugs widely used as systemic or topical agents in dermatology.

Amphotericin B

It is derived from Streptomyces nodosus and is used in the treatment of leishmaniasis and systemic fungal infections. [2]

Arginine

It is an alpha amino acid which does not cause any irritation to the skin. It is derived from brown sugar. [3]

Bacitracin

It is derived from Bacillus subtilis-Licheniformis group of Tracy 1 strain. It is a bacterial cell wall synthesis inhibitor. [2]

Black peel

It is derived from fermentation of black rice. [4]

Bleomycin

It is a glycopeptide antibiotic with antitumor activity derived from Streptomyces verticillus.

Cephalosporins

They are derived from Cephalosporium

acremonium, a mould. It is a β-lactam antibiotic and inhibits cell wall synthesis. [2]

Clindamycin

It is derived from Streptomyces lincolnensis. The drug is a derivative of lincomycin that has antibacterial activity and is better absorbed than its parent drug. [2]

Colchicine

It is derived from Colchicum autumnale and is used as an anti-inflammatory agent for treatment of Behcet disease. [5]

Cyclosporine

It is derived from a soil fungus, Tolypocladium inflatum gams. [2] It is a calcineurin inhibitor.

Erythromycin

It is derived from Saccharopolyspora erythraea. It is used in inflammatory facial dermatoses such as acne and rosacea because of its anti-inflammatory properties. [2]

Ferulic acid

It is derived from cereals and is an effective scavenger of free radicals. [4]

Fusidic acid

It is derived from Fusidium coccineum and is used as a topical antibiotic.

Gentamicin

It is an aminoglycoside antibiotic effective against gram negative organisms and is derived from Micromonospora purpurea. [2]

Glycolic acid

It is derived from sugarcane.[2] It has anti-inflammatory and keratolytic effects.

Griseofulvin

It is derived from a mould Penicillium griseofulvum which is indicated for the treatment of dermatophyte infections of the skin, scalp and nails. [2]

Ivermectin

It is derived from Streptomyces avermitilis. [2] It is a systemic antiparasitic agent.

Jasmonic acid

It is derived from jasmine and has antitumor, anti-inflammatory and cosmetic activity.[7]

Kojic acid

It is derived from the fungus Aspergillus oryzae and is used as a depigmenting agent.[8]

Lactic acid

Lactic acid is a keratolytic agent derived from sour milk, bilberries and yogurt.[4]

Malic acid

Scheele isolated this acid from unripe apples in 1785. It is found in other fruits such as grapes, watermelons and cherries and in vegetables such as carrots and broccoli.[9]

Mandelic acid

Mandelic acid is named after the German word ‘mandel’[10] for almond, as it is derived from bitter almond extract.

Methoxypsoralen

It is derived from Psoralea corylifolia and is used as a photosensitizer.

Mupirocin

It is derived from Pseudomonas fluorescens and inhibits bacterial isoleucyl-tRNA synthetase, thereby hindering bacterial RNA, protein and cell wall synthesis. [2]

Mycophenolate mofetil

It is derived from Penicillium brevicompactum.[2] It has antibacterial, antiviral, antifungal, antitumour and

immunosuppressive properties.

Neomycin

Neomycin is a bactericidal aminoglycoside antibacterial agent produced by Streptomyces fradiae.[2]

Nystatin

It is derived from Streptomyces noursei and is used as an antifungal agent.[2]

Penicillin G

It is derived from a fungus Penicillium chrysogenum. [2] It is a broad-spectrum antibacterial agent. [11]

Permethrin

Pyrethrins are derived from a flower species of the genus Compositae, which is related to chrysanthemum and is used in scabies and ticks. [2]

Pimecrolimus

It is a calcineurin inhibitor[12] used in the treatment of atopic dermatitis derived from Streptomyces hygroscopicus. [2]

Podophyllin

It is derived from the roots of Podophyllin peltatum (mayapple). It is cytotoxic agent used in the treatment of genital warts. [13]

Polymyxin B

Polymyxin B is isolated from the aerobic gram-positive rod Licheniformis group of Tracy 1 strain of Bacillus subtilis and disrupts bacterial cell membrane. [2]

Phytic acid

All edible seeds, grains, legumes and nuts contain phytic acid in varying quantities, and small amounts are also found in roots and tubers.[14]

Retapamulin

Retapamulin, a topical antibacterial is a semi-synthetic pleuromutilin derivative. Pleuromutilin is produced by Clitopilus scyphoides (previously known as Pleurotus mutilus).[2]

Rifamycin

It is an inhibitor of RNA synthesis and is derived from a mould Amycolatopsis rifamycinica/Streptomyces mediterranei.[4]

Sinecatechins

It is derived from green tea polyphenol extract from Camellia sinensis used in the treatment of external genital and perianal warts.[15]

Tacrolimus

It is derived from the fermentation of a Japanese soil sample that contained the bacteria Streptomyces tsukubaensis. It is a combination of the words Tsukuba, macrolide and immunosuppressive. Tacrolimus inhibits calcineurin by binding to the FK506 binding protein.[16]

Tartaric acid

Tartaric acid is a constituent of fruits such as grapes and bananas and exhibits a slightly astringent and refreshing sour taste.[2]

Tetracycline

It is derived from Streptomyces species. It is a bacteriostatic agent with gram-positive and gram-negative activity.[2]

Vancomycin

It is a macrolide derived from Streptomyces orientalis (actinomycetes) used in the treatment of methicillin resistant staphylococcal infections.[2]

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A PICTURE IS WORTH A THOUSAND WORDS :

PHOTOGRAPHY IN DERMATOLOGY!

Master folder has to be made for each patient, in which all relevant data can be added – clinical, dermoscopy and histopathology images. Follow up images are added as sub-folders with dates within the same master folder.

INTRODUCTION:

It is said that photography is 'drawing with light'. Dermatology being a visual field has come a long way in clinical photography. And it is now an essential part of documentation and follow up. Clinical photography improves the dermatologist's ability to communicate with peers and patients. It has role to play in various fields from teaching, publication to tele-dermatology.

BASICS OF CAMERA :

All cameras have a shutter which allows light to enter, then a series of lenses focus this light which then reaches an array of sensors; these sensors record the light electronically. A computer then converts the electronic information into digital data, in the form of photograph.

APPLICATION OF PHOTOGRAPHY :

- **Educational tool :** for teaching purpose and presentation in conferences.
- **Diagnostic tool :** to determine patterns of disease
- Tool for documentation
- Maintenance of reliable and objective medical records
- Monitoring disease process and response to treatment
- Surveillance of at-risk patients
- Tool in research and publications
- To obtain a second opinion

- To share with pathologist
- Tele-dermatology
- Creating diagnostic tolls under artificial intelligence.

PARAMETERS

LIGHT :

- **Source :** Ambient, In-built flash or external light can be used.
  - Natural light is the best source of light.
- **Duration :** given by Shutter speed (SS) i.e., the time during which it stays open.
  - Longer the SS, more light enters, brighter image but with higher chance of blur.
  - If SS is fast, the image is darker but less chance of blur.
- **Aperture :** is how much the shutter opens.
  - Smaller the aperture size, lesser light enters. It gives a darker but sharper image.
  - Wide aperture, more light enters. It results in brighter image but with more blurring.
- **ISO :** It is the camera's sensitivity to light. Higher the ISO, brighter the image. ISO of around 100 is optimum for clinical images.

SENSORS : It is the part that records the image and is expressed in megapixels. The greater the number of megapixels, the more information the sensor can capture and the more an image can be enlarged.

PIXEL :

- It is "Picture el ement". It is the smallest element of a digitalized image.
- Digital images are made up of millions of tiny squares or pixel.
- It is the total number of individual pixels that go into making each image. In the cameras available now, this number varies from 1 million (1 megapixel) to around 14 million (14 megapixels). Million pixel is abbreviated as MP.

RESOLUTION:

- Provides an indication of the amount of detail that is captured. The higher the resolution, the more pixels in an image and therefore the greater the image quality.

FOCUSING :

It can be either manual or automatic. DSLR cameras have both automatic and manual focus whereas smartphone cameras have only automatic focus settings.

ZOOM CONTROL :

- The zoom control allows you to get 'close' enough to capture that image.
- Most cameras have both optical and digital zoom.
- **Optical zoom :** The lens changes the focal length and magnification as it is zoomed. Image quality stays high throughout the zoom range.
- **Digital zoom :** It crops the image to a smaller size and then enlarges the cropped portion to fill the frame again. There is a significant loss of quality.

FRAMING :

- **For a single lesion :** a single close-up shot is sufficient, which should also include an anatomical landmark.
- **In case of extensive lesions :** three images may be needed.
  - A zoomed-out image to show full extent of lesions.
  - A medium shot
  - A close-up shot for detailed morphology of lesion.

- Placing a ruler beside the lesion when image is taken, helps to know the evolution of lesion.

BACKGROUND : Ideally a blue or green background should be used.

STANDARDIZATION : It means consistency, in terms of camera parameters, patient position, camera position, background and lighting. This is very important during follow while comparing pre-post images.

STORAGE :

- It is a good idea to keep least one backup on a physical drive and one on a cloud.
- Also, use back-up SD (Secure Digital) card for your main camera in case of shortage of space.
- It is important to back up the images on a day-to-day basis and also in a manner that is easy to recover.
- The principal key here is tagging of the images, which has to be done appropriately for retrieval of images.
- A bare minimum for tagging would be patient's name, diagnosis, and identification number.
- Master folder has to be made for each patient, in which all relevant data can be added – clinical, dermoscopy and histopathology images. Follow up images are added as sub-folders with dates within the same master folder.
- It is important that storage is adequately password protected. Strong security is necessary for both physical and cloud storage, to prevent data leakage.

CYBERSECURITY :

- We need to take measures to keep all valuable information in our computer system against unauthorized attacks.
- For a system to be secure, it needs to address the concept known as the CIA triad: Confidentiality-Integrity-Availability.
- Cameras on personal devices should never be used, at least not on phones with internet access.
- Storage should be in safe devices of limited and known access. Avoid connecting to public Wi-Fi for medical activities, use updated security software and have a secure system.
- It is the doctor's responsibility to protect your patient's data.

TYPES OF CAMERAS

Camera	Advantages	Disadvantages
DSLR (Digital Single Lens Reflex)	• Better quality of in-built flash • Larger sensor size • Better flash synchronization • More options of lenses • Advance manual control • Macro mode is available	• Expensive • Bulky • Transfer of images cumbersome
Point and shoot/Compact camera	• Easy controls • Light and handy	• Smaller sensor size • No flash • No options of lenses
Prosumer/Bridging camera	• Larger sensor size • Good optical zoom • Manual options • Economical	• Fixed lenses • Transfer of images relatively complex. • Relatively bulky
Smartphone Camera	• Easy to capture • Easy to transfer images • Videos can be taken • Saves space and time	• Smaller sensor size • Lesser resolution • Lack of consistent lighting and optical zoom • Unavailability of exposure settings • Less advanced manual control • Image distortion

ETHICAL ASPECTS:

- Patient needs to be asked if he/she can be photographed.
- Patients need to be explained the reason for taking the photograph, where it is going to be stored, how it is going to be used whether for teaching or publications and who may have access to it.
- Obtaining written consent from the patient prior to taking images as well as sharing them with a third party is mandatory. The consent at least should include details of purpose of photography, disadvantages to the patient related to treatment outcomes if photography not done, and explanation of security and confidentiality.
- The images must be shown to the patient.
- The professional conduit, etiquette and ethics regulations by medical council of India (MCI) and National Medical Council (MCI) states “A registered medical practitioner shall not publish

photographs or case reports of his/her patients without their permission, in any medical or other journal in a manner by which their identity could be made out. If the identity is not to be disclosed, the consent is not needed.

- The clinicians receiving images for second opinion are also bound by the same ethical and legal regulations as those taking the images.

TIPS:

- Always take written informed consent from the patient.
- Always take multiple images, review and keep the good ones.
- Maintain standardization: consistent lighting, position and background.
- Maintain a dedicated area of clinic with fixed for the purpose of photography.
- Use of tripod helps in stabilizing the camera/phone.
- Marking the spot on floor to seat the patient helps to keep position constant.
- Macro mode may be used for close up images.

CONCLUSION:

Digital photography has changed the way images are captured and stored in clinical dermatology. Further incorporation of cameras into smartphones advanced it more rapidly. Standardization of clinical photography and following the ethical principles are two key factors. It is important to keep ourselves updated with technology and its application in dermatology.

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MENTAL HEALTH DECODED!

In the middle of the day, when you are surrounded by your friends, suddenly, you may be hit. There is an uncomfortable feeling in your mind that something is not right at all. You want to go and hide in a quiet and dark place. You are consumed by your own thoughts and feel so afraid. You feel wrecked from the inside out.

You hear voices, people plotting against you, trying to hunt you down. You hide in your room, close the door and windows, and you cover your ears, yet you can't stop those voices, they just grow louder.

What can you do? Suffer? That's what most people end up doing, albeit silently. Fear eats our insides away, till we are nothing but bones. When the suffering gets too much and you cannot handle the darkness that is pulling you into an external abyss, you decide the only way to stop the darkness, is to join it. You decide to take your own life, suicide….

The state of Mental Health care in India is dismal. We are a population of 1.3 billion people, yet there are only 7000 to 8000 psychiatrists in the country. According to NHMS figures, 85% of patients who suffer from common mental health issues do not get treated. Eighty to ninety percent of people who resort to substance abuse and who attempt suicide, do not seek professional help. The government only spends 881 crore on mental health care which is only 0.2% of GDP. One out of every five of us faces mental health issues at some point in our life. Yet, we do not know where to go, or whom to speak to.

The first thing, an individual should do is ACCEPT, accept that he/she is feeling sad or depressed, or anxious. Accepting the fact that we have mental health issues is the hardest thing to do. We are afraid, what will my peers or my family say if they find out that I have a mental health issue, will they abandon me, will I be shunned from society? What will people say if they find out that I am meeting a psychiatrist? Will I be labeled a mad person my whole life?

This has to stop right now.

The seeds of good mental health have to be sown at the age when the mind is in its tender, growing stages, that is childhood. Good mental health practices should be encouraged from childhood itself, in schools, by teachers, and by parents. Children should be taught how to face common life situations, with a calm mind, and also how to strengthen interpersonal ties, to be with people in their time of need.

Life is not a bed of roses, everyone has their ups and downs, and everyone faces stressful issues at some point in life, be it workplace-related, health-related, or family related. That

does not mean we give up and end our life.

Currently, we are still reeling under the effects of one of the worst pandemics the world has ever seen. Not only have families lost their sole breadwinner, but also entire families have been wiped out. People are losing jobs, and facing layoffs, salary cuts, and so on. They are unable to meet their daily expenses.

The societal stigma needs to be curbed. We as a society should strengthen interpersonal ties, accept people who face mental health issues, and encourage them to overcome this battle of the mind. If we isolate these people, who are in need of a helping hand, we only push them further to take the extreme step.

In metropolitan and Tier 1 cities, there are encouraging trends visible. Many schools, colleges, and private organizations have in-house counselors. Students and employees are encouraged to reach out and discuss any professional or personal issues, in a way in which their identity is protected. Individuals have started stepping out of their comfort zones to seek professional guidance, thereby bringing about significant change in their lives. However, the penetration of availability of counseling and acceptance of mental health issues has not reached Tier 2, 3 cities, towns, and rural India. This is where the mental health burden is most prevalent and unaddressed, thus forming the submerged portion of the iceberg. Counseling sessions should be made more available and affordable, as many who aren't aware of the gravity of their condition find it unnecessary to spend so much on counseling.

It is very easy for us to say the Government should introduce newer mental health programs, better hospitals and facilities for people with mental health issues, incentives for medical students to take up Psychiatry, and so on. Whether the government will implement all this, is not in our hands, only time can tell, we can just raise our voices. But, we as individuals can do so much to help these people in need. All they want is a helping hand and a few comforting words. In our social circles, we should be ready and willing to listen who want to speak and unburden themselves and maybe offer a word or two of comfort and support. In this way, we counsel people in our own circles. This may be a small step for us but it will go a long way in making a difference in someone else's life.

To all those suffering deep inside, pushing those feelings to the back of your mind, please don't give up, fight the demons inside and you will end up victorious. Come out, and speak for yourselves, because you are the leaders of your own lives. Please remember that no matter how distant your dream may seem, how distant love may seem, it will always be there. Your dreams are valid, and on your path, you are never denied but only redirected. Never lose hope. Magic happens when we refuse to give up because the Universe always listens to a stubborn heart. We are rocks in a sea of chaos. We cannot let every storm knock us around.

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PG Y1, Dr BRAMC.

Nail Cosmetics

Introduction

- The earliest use of nail coloring dates back to 5000-3000 BC in ancient Egypt and China.
- The first nail polish – made froom egg white, flowers, and wax.
- Natural henna was also used as a nail colorant.
- Specific colors like red, gold, and silver were chosen for royalty, and the common folk had to use lighter shades.
- Artificial nails date back as far as 600 BC to the Chou dynasty in China, where nails were made from gold, silver, and precious stones.
- Modern day nail polish was formulated in 1920 by the Charles Revlon Company, which were inspired by the enamel paint used on cars.

WHAT IS AN ATTRACTIVE NAIL?

A nail is generally considered aesthetically pleasing if it has:

1. A smooth glossy surface.
2. No overhanging or ragged cuticle.
3. A tip extending beyond the nail.
4. An oval contour to the nail plate.
5. A gentle curve when visualized from the side.
6. Translucency so that the pink nail bed is clearly visualized.

The beauty of the nail can be further enhanced using various shades and colours of nail polish.

Utility of nail cosmetics in dermatological conditions

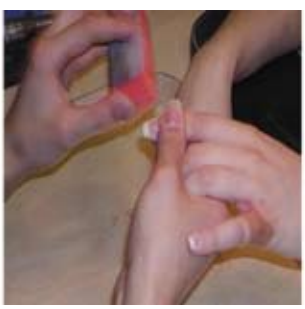
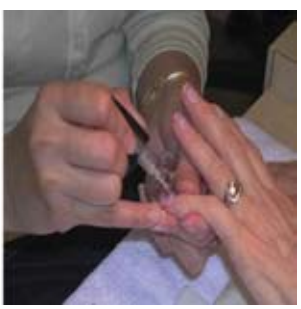
- Disguise and conceal unsightly nail abnormalities
- Lacquer-based nail enamels and ridge fillers may help smooth longitudinal ridging associated with aging.

- Manifestations of psoriatic nail disease such as nail pitting, onychorrhexis, splinter hemorrhages, salmon patches, and onycholysis can be disguised with lacquer.
- Nail shape abnormalities such as brachyonychia can be hidden with artificial nail enhancements.
- Persons aiming to break bad habits such as nail biting or cuticle picking can employ nail overlays as a helpful deterrent.
- In addition, nail cosmetics can be utilized in the management of brittle, soft, and/or splitting nails Brittle nails arise when the water content of the nail plate falls from roughly 18 to 16% water content

Manicure and Pedicure

- The previous polish is cleaned off with a chemical remover the nails
- The hands/feet are soaked in warm water with a mild detergent to soften the nail plate and Cleanse cuticle and to remove any dirt or grease from the surface.
- A foot scraper or a pumice stone is used to buff away any rough skin or thick callus.
- The nails are cut to the required length with nail cutters or clippers
- The cuticle is soaked in a softener (alkaline substances like 0.4% sodium and potassium Trim hydroxide) and pushed back with a specially designed metallic or wooden stick, and then trimmed off with a cuticle cutter.
- The surface of the nail is buffed with an emery board to smoothen any ridges.
- The hands/feet are rinsed and dried, and and emollient cream is massaged to soften the skin and trap moisture into the nail plate.
- The cream is cleaned off from the nail plate.



FRENCH NAIL MANICURE

This method is used to provide a “natural” appearance to the nail. A pink color is applied to the main nail plate, while a white color is applied to the free edge, simulating a natural un-painted nail, picturing good health

Nail lacquer

The ideal nail polish application procedure includes three layers:

1. Base coat: This is the first layer to be applied. It is transparent with a strong adhering capability due to higher resin content. It protects the nail plate from staining.
2. Nail polish: A plethora of colors are available, with or without a metallic finish. The expertise of the nail technician provides various styles of nail polish application, of which the "French nail manicure" is very popular.
3. Top coat: This transparent layer contains more of nitrocellulose and less resin, so as to protect the varnish from chipping.

Nail polish is a complex combination of

1. Film-forming agents (most commonly, nitrocellulose).
2. Resins (e.g., tosylamide–formaldehyde) for adherence.
3. Plasticizers (e.g., dibutyl pthalate) for flexibility.
4. Solvents (butyl stearate and acetate compounds) for keeping the polish in fluid state and to help in quick-drying once applied.
5. Thixotropic agents (e.g., bentonite) for keeping the ingredients uniformly suspended.
6. Various mineral pigments (calcium carbonate, zinc oxide, titanium dioxide, iron oxides), synthetic pigments (D and C red 6/7/19, FDC yellow).
7. Natural agents (guanine, bismuth, oxychloride, and micatitanium) for the color and shine of the nail polish.

NAIL HARDENERS

- These are applied as a base coat for the purpose of strengthening the nail plate.
- They may contain titanium– silicone–zirconium polymers, polytef, nylon, calcium, and biotin.
- Those containing formaldehyde may cause paronychia and irritant dermatitis, and are not in common use anymore.
- Nail hardeners need to be cleaned off every 2–3 days to prevent onycholysis and chromonychia.

NAIL POLISH REMOVER

With the innumerable color choices available, nail polish is constantly changed to suit women's moods and clothes. This involves cleaning off the existing one with removers.

The following varieties are available:

1. Acetone – the most commonly available. It has been reported to cause an irritant dermatitis.
2. Acetone-free nail polish removers containing ethyl acetate, butyl acetate, or ethyl lactate.
3. Nail polish remover pads containing gammabutyrolactone, which are safe and convenient to use. Rarely they get converted to GHB (gamma-hydroxybutyrate) resulting in systemic toxicity.

NAIL ADORNMENT

1. The cosmetic appeal of nail polish can be enhanced with the application of ready-use plastic or metal artifacts immediately before the polish dries.

2. The design pieces are skillfully lifted from a template with forceps and placed on the freshly applied wet nail polish, in a planned pattern
3. This is then covered by a top coat, which prevents it from getting dislodged.
4. Nail design can also be made, allowing the first layer of color polish to dry completely and subsequently painting a second contrasting color on top of the first, with a design template.

Artificial nails

Artificial nails evolved from the need for lengthening or reinforcing soft, brittle, or damaged nails.

These can be partially attached as nail tips or used to reinforce the entire length as sculpted nails (acrylic or gel based).

NAIL TIPS

Ready-to-use plastic plates, shaped like nail tips are available at nail salons. These are glued to the free edge of the nails with adhesives containing methacrylate or ethyl cyanoacrylate. The nail surface is filed roughly prior to gluing the nail tip, in order to improve adhesion. Painted or decorated with nail art and finally coated with acrylic or gel. Entire plastic nails can be stuck on. The tips can be removed with acetone.

SCULPTURED NAILS

- These are either acrylic or gel based and are sculpted over the existing unaesthetic nail. Both acrylic or gel-based nails involve a mix of a powder and a solution, applied to the nail. A disposable foil with a printed grid is used as a template for the application of materials.

Acrylic nails

- A few drops of ethyl methacrylate mixed with powdered poly-methacrylate results in a polymerized mixture that needs to be applied quickly due to the instant setting potential.
- A uniformly thin layer is applied to achieve the desired effect.
- Individual brands may add titanium dioxide and permitted colors.
- A further modification of the process is the gluing of pieces of silk, linen, or fiber glass to the nail, prior to the acrylic application. These are called “nail wraps” and add strength to the nails.
- Acrylic nails can be removed with acetone.

Gel nails

- The powder and the liquid phase of gels is akin to dental resin
- Requires specific UV-light exposure to set and cure (harden) the gel
- These nails appear glossy, are aesthetically appealing, have greater strength for endurance to physical wear and tear, and need less after-care.

- Gel nails can be removed only by completely buffing them off the nail plate.
- This results in physical damage to the nail plate during each removal.
- "Touch-up" procedures are required for both acrylic and gel nails -- usually every 2–3 weeks.

UV-cured shellacs

- A variant of the nail gels, shellacs, or UV-curable nail lacquers, were developed to better satisfy consumer demand for rapidly drying, highly durable nail lacquer .
- Shellacs resist chipping and are designed to be worn atop natural nails for 4–6 weeks after which time they can be removed by simply soaking in acetone.
- Shellacs possess the same pigments that are used in traditional nail lacquers, but use a base containing polymerization photoinitiators, and UV-curable methacrylate or acrylate oligomers and monomers rather than the standard solvent/resin base.
- The application process for shellac involves a series of six coating steps (two coats of base polymer, two coats of pigmented polymer, and finally two clear coats), each of which is followed by exposure to lowintensity UVA light for 1–3 minutes to photocure the polymer .
- Patients may develop an ACD to uncured methacrylate or acrylate oligomers and monomers, and great care should be taken to prevent sensitization by avoiding skin contact .

ADVERSE EFFECTS

These can be broadly categorized as those due to the chemical components or complications during or subsequent to the nail-grooming procedure.

These may occur in the periungual tissue, the nail plate, or at distant sites due to an allergic contact dermatitis.

Procedural complications of a manicure/ pedicure

1. Cuticular cuts and "hang" nails are common with the cuticle-trimming procedure and can be very painful.
2. Irritant reactions or chemical burns following use of the cuticle softener are usually seen around the proximal paronychial fold.
3. Clipping nails when dry can cause onychoschizia, with horizontal splitting of the nail plate in layers, making it brittle.
7. Over-zealous buffing of the nail plate can thin the nail plate and cause fragility.
8. Paronychias, bacterial, fungal, and viral infections, especially verrucae, can be inoculated or spread between patients with the use of non-sterile implements.

9. Pedicure tubs in which hands and feet are soaked have been reported to cause Mycobacterium fortuitum infections from a nail salon in California.
10. Repeated use of nail polish, especially deep colors like red, often stain the nail plate.

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Table 1: List of reported adverse reactions to individual constituents of nail cosmetics

Nail cosmetic	Component	Reported side-effect(s)
Nail polish	Nitrocellulose	Allergic contact dermatitis[8]
	Formaldehyde	Allergic contact dermatitis[7]
		Paronychia[8]
		Desquamative gingivitis[9]
	Tosylamide-formaldehyde	Onycholysis[4,10]
		Outbreak of contact dermatitis[11]
		Allergic contact dermatitis (occupational)[12]
		Allergic contact dermatitis[13-15]
	Dibutyl phthalate	Allergic contact dermatitis[16]
		Decreased sperm mobility and viability[17]
		Altered development of the fetal testis[18]
	Butyl stearate	Contact dermatitis[19]
	D and C yellow 11	Allergic contact chelitis[20]
Nail polish removers	Gamma butyrolactone	Withdrawal delirium with acute renal failure[21]
		Acute toxicity in 9 and 15 month olds[22,23]
		Rapid onset of coma, respiratory depression[24]
		Fatal and nonfatal intoxication[25]
Nail adhesive	Methyl acrylate	Skin sensitizer[26]
		Respiratory sensitizer[27]
	Ethyl 2- cyanoacrylate	Allergic contact dermatitis[28]
		Occupational asthma[29]
Acrylic nails	Methacrylate	paresthesia[30]
		Eyelid dermatitis[31]
		Allergic contact dermatitis[32]
		Occupational asthma[33]
	Hydroxyethyl methacrylate	Allergic contact dermatitis (occupational)[34]
	Benzoyl peroxide	Allergic contact dermatitis (occupational)[35]
Gel nails	UV light	Nonmelanoma skin cancer[36]
	Photobonded gel nails	Allergic contact dermatitis[37]

TIPS TO PROVIDE TO PATIENTS VISITING A NAIL SALON

1. The nail salon should have a clean environment.
2. The nail technicians should be neatly attired and have clean nails.
3. Sterilized Implements like nail clippers, nail cutters, foot scrapers, callus removers, and electric drills
4. Carrying one's own implements is a wise decision.
5. Nails should be cut only after soaking for 10–20 min in water to prevent onychoschizia.
6. Over-zealous pushing back the cuticle or nipping the cuticle by the technician should be avoided, as it leads to infection and inflammation of the nail folds.
7. Nail polish should be left on for few days only, and cleaned off with acetone-free cleansers.
8. Nail hardeners too need to be cleaned off every 2–3 days. Inform the patient about the probable staining effect of dark nail polish. Avoid layering on nail polish without cleaning off the old one.
9. Inform the patients about nail plate damage with application of artificial nails.
10. Any swelling, pain, redness, and growths around the nails should be attended to by a medical practitioner.

CONCLUSION

Although nail cosmetics are advantageous for "beautifying" or concealing various nail disorders, adverse effects are a definite possibility. As dermatologists, a complete knowledge of various nail products, nail-enhancement procedures, and anticipated complications and their management can result in better patient care.

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NAMED ITCHES

7 year itch : Scabies if untreated may last for years, hence the name.

Anal itch : Caused due to itching in the perianal region due to various causes such as infection, inflammatory skin condition, dermatitis.

Barber's Itch : Staphylococcus infection of hair follicle in the beard hair, usually upper lip.

Gentleman's itch : Scabies in hygienic individual

Grain itch/Barley itch : Caused due to contact with a mite, Pyemotes Ventricosus present on straw, grain, other plants

Grocer's itch/Baker's itch : Pruritic dermatitis occurring due to contact with mites such as Carpoglyphus passularum (fruit mite) or Glycyphagus domesticus (common house mite) found on stored hides, dried fruits & grains.

Ground itch : Also known as Cutaneous Larva Migrans, is a type of pruritic skin lesion caused by entry of Non human Ankylostoma species, usually Ankylostoma Braziliensis in the feet.

Harvest itch : Caused due to Contact with Trombiculid mite larva found in forest & grass lands

Jock itch : Also known as Tinea cruris, is an infection involving the genitals, pubic, perineal, and perianal skin caused by Dermatophytes.

Phantom itch

Occur after amputation of any innervated body part. Here person will feel itch sensation coming from their amputated body part but it cannot be scratched.

Puncta pruritica : Also known as Itchy points, consists of one or two itchy spots in clinically normal skin, sometimes followed by the appearance of seborrheic keratoses at exactly the same site

Referred itch : Also known as mitempfindung is the phenomenon in which a stimulus applied in one region of the body is felt as an itch or irritation in a different part of the body.

Renal itch : Seen in patients of Chronic renal failure or end-stage renal disease due to uremia

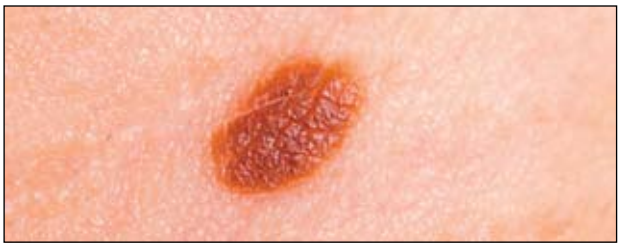
Swimmers itch : Also known as Cercarial dermatitis, occurs due to penetration of larva of Schistosoma in the people involved in open-water activities in fresh and salt water areas.

Telepathic itch (pruritus) : Type of delusion in which patient feels that some other person use mental telepathy to make him itch

Winter itch : Also known as pruritus hiemalis, is a type of subclinical dermatitis, that affects individual during cold weather

Dr Sanketh S
First year Post-graduate
MIMS Mandya

S.O.S. - SAVE OUR SKIN



Skin cancer is becoming a common plight,
Caused by exposure to sunlight.
Basal cell, squamous cell, and melanoma,
Each can cause trouble, such a drama.

Basal cell, it's usually benign,
But it's important to catch it in time.
Raised bumps and pearly edges to see,
Remove it, and you can be free.

Squamous cell, it's more aggressive,
A rough patch, it can be obsessive.
It can grow and spread, it's clear,
To other parts of the body, it can adhere.

Melanoma, it's the deadliest of all,
A mole or dark spot, it can appall.
Irregular shape, or changing size,
Get it checked out, before it can surprise.

Prevention is key, so protect your skin,
Use sunscreen, and cover up, and then
You can reduce your risk, it's true,
And keep your skin healthy, it's up to you.

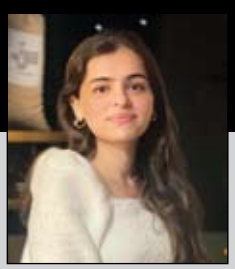
Skin cancer, it's a warning of the sun's harm,
Be aware, and stay vigilant, it's no charm.
With the right care, you can be alright,
And keep your skin healthy, both day and night.

Dr. Jinisha Anand Jain
Assistant Editor
Yuvaderma

SCARED OF THE DARK?

Blessed are those, who aren't scared of the dark
Not coz of ghosts, witches or what lies beyond mankind
But coz of what lies within men
Which if crossed paths with,
Can only offer you dread, hopelessness and fear
Leave it's imprints deep within the crevices of your soul
Permeate the corners where no light has ever reached
Make your insides scream louder than any deafening sound
Make your skin crawl at the sight of a dark alley
All coz he asked "don't tell me you're scared of the dark?"

Dr Vedika Barman
JR-3
KVG Medical College Sullia



THE ART OF QUIZZING

Growing up, I was always intrigued by puzzles, riddles, and challenging games. But little did I know that my passion for trivia would extend to the world of dermatology after joining PG. When I walked into our department, as a first-year resident, 3 years ago, I was quick to pick up on the strengths of our department. From being strongly patient-oriented to being strongly academically inclined, I noticed that my seniors had already imbibed excellent clinical knowledge. To my surprise, they seemed to be exceptionally good at something else - the art of the quiz.

What gradually then began as my Head of Department's everlasting series of puzzling questions and riddles during ward rounds, spotter discussions and pedagogy sessions, which got me and my batchmates hooked to our books, racking our brains, and restlessly seeking out the answers, eventually turned into a new outlet for us, a path that led us to our new-found passion of being quizzed.

Our zeal for quizzing soon left the confines of our academic discussions and classes and entered the portals of state and national conferences. It wasn't long before we realised that quizzing on a public platform was completely different from that of a comfortable controlled environment.

For instance, the first in-person quiz I attempted was the DermaZone South 2022 quiz, held in Visakhapatnam. With numerous teams taking part, for me and my team-mate, the prelims were the survival of the fittest. After ticking and erasing our answers numerous times, deciding if a question was a trick question or not, and sometimes just trusting our instincts, we managed to nerve-rackingly clear the prelims. The real test was the finals on the stage the next day, being placed in front of an audience of about 100 people and being asked dermatology questions back-to-back, put us in an initial state of shock. But, motivating each other as the quiz progressed, we calmed down and regained our poise and confidence. Sure enough, that quiz was exhilarating and by the final round, which was rapid-fire, we regained our initial lost points and were ecstatic when it was announced that we had won gold.

My batchmates had their own share of brilliant quiz victories at Cuticon Karnataka 2022, Torrent Scholar and the Amala PG Quiz. I later proceeded to give the Muller Derma PG Quiz a shot. The catch at this quiz was that I was paired with a prelims winner who was not known to me. Having to team up with a PG from another college and make it work, did seem challenging but we made it through. Despite quizzing being quite a hobby by then, the adrenaline rush remained quite the same! After being tested in numerous rounds of dermatology, we were elated to finally be announced the winners!

Participating in dermatology quizzes allowed me to challenge myself in new ways, while also gaining a deeper appreciation for the complexity of the subject. From teamwork, strategic thinking skills, and time management to maintaining a sportive spirit, quizzing has helped me build skills for life. I strongly urge all my fellow aspiring young dermatologists to try quizzing if they want to mix serious learning with a splash of fun.

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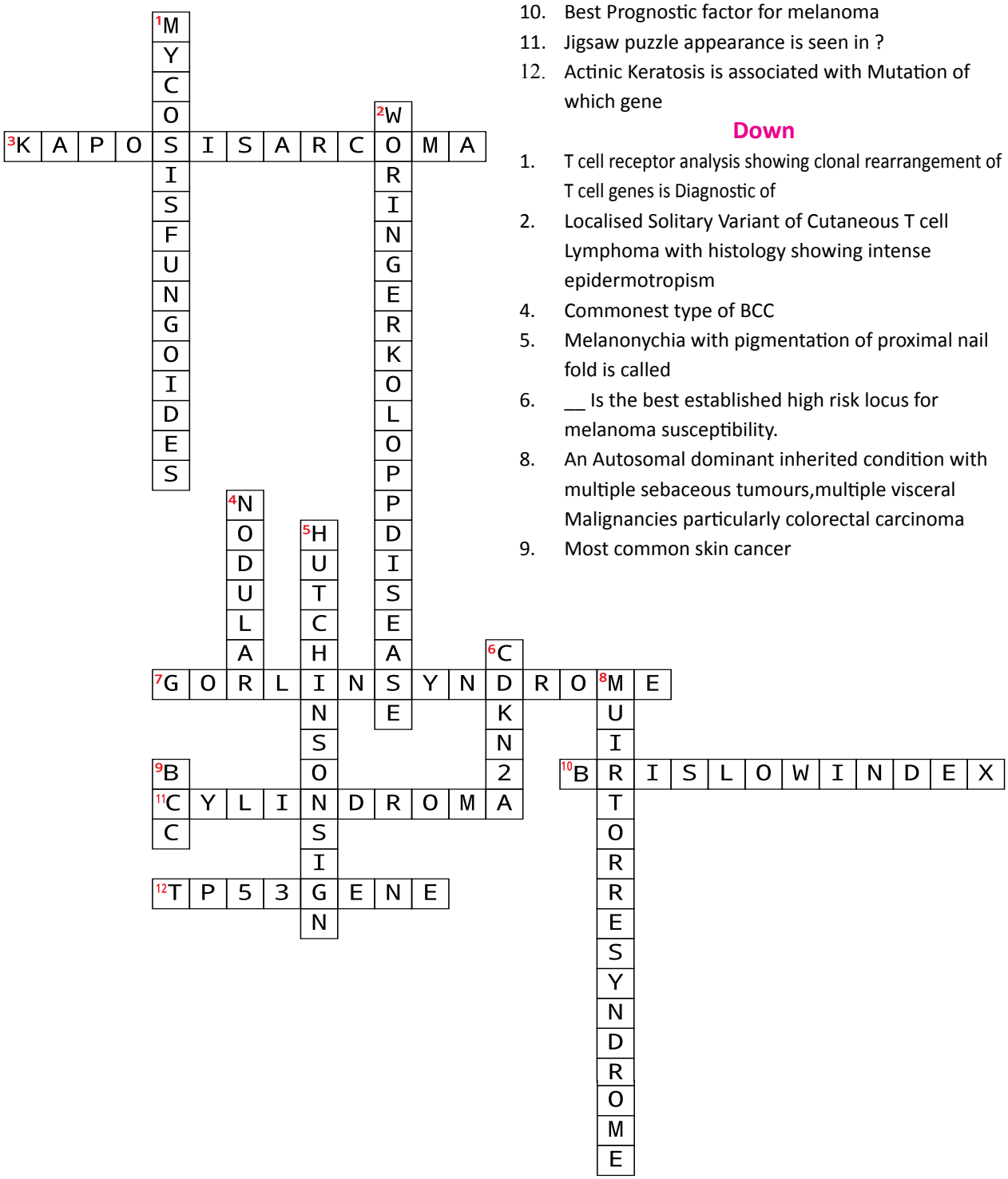
CROSSWORDS

Answer



Across

3. HIV is the most common cofactor increases the risk of by 20000 times.
7. Syndrome with multiple BCCs and PTCH1 Gene mutation.
10. Best Prognostic factor for melanoma
11. Jigsaw puzzle appearance is seen in ?
12. Actinic Keratosis is associated with Mutation of which gene

Down

1. T cell receptor analysis showing clonal rearrangement of T cell genes is Diagnostic of
2. Localised Solitary Variant of Cutaneous T cell Lymphoma with histology showing intense epidermotropism
4. Commonest type of BCC
5. Melanonychia with pigmentation of proximal nail fold is called
6. __ Is the best established high risk locus for melanoma susceptibility.
8. An Autosomal dominant inherited condition with multiple sebaceous tumours,multiple visceral Malignancies particularly colorectal carcinoma
9. Most common skin cancer

We hope you have liked this effort of ours.

Mail us your feedback, queries and articles at

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Regards,

Editorial Team