

Vol: 2011;1: Jan-Jun



Suggestions and opinions are invited about the news letter and kindly contribute relevant articles for the subsequent editions

Write to the Editor - ACSIPEN at

Dr. Raghunatha Reddy R

Mathapitha Poly Clinic, # 8, G K Plaza,
Banasawadi Main Road, Jaibharath Nagar,
Bangalore - 560033

Email:raghunatha18@yahoo.com

Ph - 09845007154

ACSIPEN

The official News letter of
Association of Cutaneous
Surgeons (I)

Index	Page No
1. The Editorial Board	1
2. From the Editor's Desk	2
3. ACSI President's Message	3
4. Minutes of Meeting of ACS(I)	4
5. CRS Becomes President elect of IADVL	8
6. 10th National Conference	9
7. Dermato-surgery Fellowship Programme	10
8. Surgical management of Vitiligo	11
9. The Advent of Surgical dermatology in India	20
10. Dermato-surgery Registry	21
11. ACSI Dermato-surgery Quiz for Post Graduates	24
12. Q-Switched ND: YAG Lasers	25
13. Whats new in Sunscreen	26
14. Resident's Corner	31
15. Updation of ACS(I) directory	33
16. Procedure of application for membership of ACSI	34

The Editorial Board - ACSIPEN

Editor	:	Dr. Raghunatha Reddy R
Assistant editor	:	Dr. Shashi Kumar B M
Editorial team members	:	Dr. K C Nischal, Dr. Nagesh T S
Advisory	:	Dr. Venkatram Mysore Dr. C R Srinivas Dr. Niti Khunger Dr. Narendra Patwardhan Dr. Somesh Gupta Dr. S Sacchidanand Dr. Koushik Lahiri

Executive Committee

President	:	Dr. Venkataram Mysore (Bangalore)
Immediate Past President	:	Dr. Somesh Gupta (New Delhi)
Vice Presidents	:	Dr. S. Sacchidanand (Bangalore) Dr. Koushik Lahiri (Kolkata)
Secretary	:	Lt Col Dr. Manas Chatterjee (Pune)
Editor (JCAS)	:	Dr. Somesh Gupta (New Delhi)
Joint Secretaries	:	Dr. Niteen Dhepe (Pune) Dr. Raghunatha Reddy (Bangalore)
Treasurer	:	Dr. Pradyumna Vaidya (Pune)

STATE CO-ORDINATORS FOR ACS(I)

Gujarat	:	Dr. Rajesh Buddadev
Maharashtra	:	Dr. Vijay Zavar
Karnataka	:	Dr. Umashankar N, Dr Shashikumar BM
Kerala	:	Dr. Saleem T, Dr RemaDevi T J
Tamil Nadu	:	Dr. Kumaresan
Andhra Pradesh	:	Dr. Sanjeev Aurangabadkar, Dr Satyanath
Orissa	:	Dr. Prasenjit Mohanty, Dr Tanmay Padhi
Madhya Pradesh	:	Dr. Anurag Tiwari
West Bengal	:	Dr. Nilendu Sarma
Assam	:	Dr. Shyamanta Barua
Rajasthan	:	Dr. Dilip Kachhawa, Dr Asit Mittal
Bihar	:	Dr. Abhishek Jha
Uttar Pradesh	:	Dr. Abir Saraswat
Delhi	:	Dr. Munish Paul, Dr Anil Ganjoo
Haryana	:	Dr. Sanjeev Gupta
Punjab	:	Dr. Aman Dua, Dr Neerja Puri, Dr Silonie Sachdeva
Chandigarh	:	Dr. Sunil Dogra
Himachal Pradesh	:	Dr. Vikram Mahajan
Jammu & Kashmir	:	Dr. Imran Majid, Dr Iffat Hassan

From the Editor's Desk – ACSIPEN

Dear ACSI members,

It is my proud privilege to be the editor of ACSI newsletter, "ACSIPEN". I am indeed privileged to take over from Dr Niti Khunger, whom I complement for doing a wonderful job as editor; The association has grown exponentially in the past few years and boasts of an indexed journal "JOURNAL OF CUTANEOUS AND AESTHETIC SURGERY". Hats off to the past editor Dr Venkataram Mysore, for this great effort and I am sure the present editor Dr Somesh Gupta will take it to even greater heights.



Dr. Raghunatha Reddy R.

I thank all the office bearers particularly the president Dr Venkataram Mysore, for having selected me as the Editor and supporting me constantly, to bring out this news letter after a gap of nearly two years. My special thanks to vice presidents, my teacher – Prof. S Sacchidanand, and Dr Koushik Lahiri. We are thankful to Dr Manas Chatterjee, the dynamic Hon. General Secretary, who has been doing a commendable work in tandem with President Dr Venkataram Mysore.

The main purpose of the newsletter is to communicate to the members, all the current activities of our association and future projects. Several articles such as Dermato-surgery quiz, Dermato-surgery registry, reflect this effort. I thank all the authors for their contributions

My special thanks to Dr B M Shashi Kumar, the assistant editor of this news letter and the entire editorial team members, for their constant support and help in bringing out this news letter.

The newsletter will be published biannually and I appeal to all the members to contribute relevant articles, for the next issue.

Thanking you all
Jai hind

Dr. Raghunatha Reddy R.

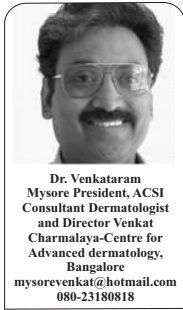
MD, DNB, FRGUHS (Dermato-surgery)
Professor and HOD, Dept. of DVL, PESIMSR,
&

Consultant Dermatologist and Dermato-surgeon,
Mathapitha poly clinic, Banaswadi main road,
Jaibharath nagar, Bangalore, 560033,

PH. 09845007154,
Email, raghunatha18@yahoo.com

ACSI President's Message

Minutes of meeting of ACS(I) held at Aurangabad ACSICON on 27 Nov 2010



Dr. Venkataram
Mysore President, ACSI
Consultant Dermatologist
and Director Venkat
Charmalaya-Centre for
Advanced dermatology,
Bangalore
mysorevenkat@hotmail.com
080-23180818

I am delighted to note that, ASCIPEN, the official newsletter of ACSI is being released. I congratulate the editor Dr Raghunatha Reddy R for his outstanding efforts.

The newsletter is an important publication to communicate the association's activities, achievements of members, calendar of events, and other administrative matters of interest to the members. It could not be published due to several reasons in the last two years, and I am therefore extremely happy that the newsletter is being published again, filling up a lacuna in our activities.

The forthcoming year is a busy year for our association. A number of events are being planned. ACSI is supporting different academic activities in several cities in India- Vitolicon at Bangalore, Acne CME at Hyderabad,

Aesthetics. Of course, the big event this year would be the National Conference ACSICON at Kaziranga in November 2011. Dr Shyamantha is busy preparing a fine scientific program and a great social event at this picturesque one horn Rhino resort- so plan your trip and register early.

I am also happy to share some more information; Preparation for ISDS-ACSI joint meeting, in Delhi in March 2012 is in full swing and Dr Somesh Gupta is busy getting the agreement signed. And for the first time ever, ACSI has been invited to organize a sister society session at WCOCD-World Congress of Cosmetic dermatology, Cancun, Mexico in January 2011. These events will give an international profile and create awareness about ACSI and its membership benefits.

There are other programs which deserve special mention: Patient's helpline on our website has been updated. Website is now updated and the members' area is active. I complement our indefatigable secretary Lt. Col. Manas Chatterjee for all his effort and request all to register in the member's area. State level coordinators have been appointed to coordinate the efforts in each state. Dermatosurgery registry will be started soon and Dr Niti Khunger is busy giving final touches to this ambitious and unique program. ACSI text book on dermatosurgery is on course- the authors and the editorial board has been finalized. Dr Vinay Saraf is giving finishing touches to a unique certificates program which will be announced shortly. Dr Koushik Lahiri has submitted guidelines for conference organization. With the efforts of Niteen Dhepe, we hope to start a national dermatosurgery quiz soon.

I am handing over the editorship of our flagship publication Journal of cutaneous and Aesthetic surgery to the capable hands of Somesh Gupta. The forthcoming issue, which will be the last issue under my editorship, has a supplement on vitiligo surgery, which is aptly being released on the eve of Vitolicon-Global Conference on vitiligo.

And with great pleasure, I congratulate our Past President C R Srinivas who has been selected as President Elect of IADVL. This is indeed a matter of great pride and happiness for all members of ACSI. I also wish Dr Sacchidanand S, the Convener of WCD bidding committee of IADVL success in his efforts to bid for world congress of dermatology in Bangalore and request all ACSI members to support this prestigious project of IADVL.

Hence, friends, ACSI is making significant strides. I thank all members of the executive committee, for their support, cooperation and guidance. I invite prospective members to join our organization. Together we will take it to greater heights.

I once again complement our joint secretary and dynamic editor Dr Raghunatha Reddy R in making the re-launch of ACSIPEN possible.

Best wishes



Lt Col Dr. Manas Chatterjee, MD, DNB (Derm and STD),
Hon. General Secretary, ACS (I)
Classified Specialist (Derm and STD) & Associate Professor, AFMC,
Command Hospital (Southern Command), Pune – 411040

1. The meeting was called to attention by Dr Somesh Gupta.
2. Dr Imran handed over cheque of Rs 70000/- and report of conference & was thanked by general body.
3. Secretary's report: Lt Col (Dr) Manas detailed about website.
 - Mentioning changes in website management from Sumeet Lamba to Sumeru Infosystems.
 - He mentioned the new features on the site
 - Present cost:
 - Renewal cost (annual): 14,000/- incl
 - A: WEBHOSTING : domain name + 100MBwebpace(windows)+ email ids + 2 GB bandwidth + MSACCESS database support + one year webhosting + service maintainence : Rs 4500/-
 - B: AMC : 06 times website updating in a year, on exiting web pages : Rs 9500/-
 - He requested approval of amount of Rs 10,500/- for private and public parts of website which was approved by GB.
 - Member registration (with user Id & Password will be given to the member)
 - Administrative panel:
 - In this all the member data will be listed here, according to valid entry of member, admin can give access to member to activate their membership account
 - Membership activation mail will be going to member automatically once the admin activates the member with their login details
 - Login panel for the admin
 - Login panel for the member through which the member can access information will be accessible only for the members
 - Creation of 5 email id's.
 - He requested approval for dynamic websites for ACSI membership and Fellowship: Rs 2500/- each which was approved by GB

Minutes of Meeting of ACS(I) Held at Aurangabad ACSICON on 27 Nov 2010

- He stated that:
 - Link to JCAS has been included
 - Forms of last conferences and meetings were available in the website
 - Dr. Neeti and Dr. Gulanikar will update the secretary on members list (from ACSICON registration database)
 - List of doctors who were given fellowship in last 06 months:
 - Dr Dimple Rangparia
 - Dr Jadhav Vikrant Madhukar
 - Dr Mohan Kudur
 - Dr Shivali Sethi
 - Dr Dhruv Gopal
 - Dr Surajit Nayak
 - Dr Akshat Mittal
 - Membership update of last 6 months to be updated on website
 - The following events had been conducted in the past year:
 - Joint meeting of IADVL DSB and ACSI held on 14 Mar 2010
 - Became sister society of IADVL
 - To have sister society meeting during DERMACON 2011
4. Presentation of audited accounts by treasurer (Dr Sharad Mutalik presented the accounts)
 5. ACS (I) has been registered as a charitable organization and PAN Card issued. This was discussed and body thanked Dr Patwardhan.
 6. JCAS accounts approved: The GB approved that part of ACS (I) fund to be given to Journal accounts (Rs 1500/- per member) from membership account to journal fund.
 7. The body approved hike of lifetime membership to Rs 5000/- after Kaziranga conference.
 8. 50% of savings of conference held in last 2 years (Srinagar & New Delhi) will be transferred to Journal's account. Till next AGM, all expenses/deficits of funds to be met from Association's account (corpus fund / conference surplus)
 9. Dr Patwardhan, Dr Saraf, Dr Srinivas will inspect as a committee the Indore conference accounts and submit report to President.
 10. Dermatosurgery registry: to take more quotations & search for quote not more than 1 lakh.
 11. Dr. Shyamanta Barua presented preparations of Kaziranga conference.
Theme: Minimally invasive surgery or Rejuvenation
 - 20% of registration fees will be given to ACSI (deduction at source)
 - In addition, 50% of surplus will go to ACSI.
 - Non members fees to be Rs 8000/- (i.e. twice members fees)
 - And for members it will be Rs 4000/-
 12. Membership for non dermatologists: Non dermatologist will not be voting members. All other PG qualifications with surgical elements in their post-graduate training will be associate members without voting & constitutional rights.
 13. Election of new office bearers:
 - Dr Patwardhan proposed Dr Dhepe as Joint secretary and seconded by Dr. Sanjeev Aurangabadkar.
 - Dr Salim proposed Dr Raghunath Reddy as Joint secretary and seconded by Dr Srinivas.
 - Dr Manas to continue as secretary suggested by Dr Patwardhan seconded by Dr Sanjeev Aurangabadkar.
 - Vice President: Dr Sacchidanand: Proposed by Dr Shyamanta; Seconded by Dr Raghunatha Reddy
 - Vice President: Dr Koushik Lahiri: Proposed by Dr Salim; Seconded by Dr Sushil Tahiliani
 - President Dr Venkataram Mysore: Proposed by Dr Koushik Lahiri and Seconded by Dr Sacchidanand
 - Dr Pradyumna Vaidya to take charge as treasurer post. Proposed by Dr Narendra and seconded by Dr Niti.
 - Dr Somesh Gupta to take over as Editor of JCAS after next 2 issues.
 - State co-ordinators: The list is being finalised
 - It was decided that selection of President is not automatic for Vice President to become President. GBM will elect a President. The same was agreed by body.
 - Dr Venkat took charge of President from Dr Somesh
 14. Further conduct of the meeting was by Dr Venkataram Mysore
 15. Journal subscription for non members Rs 1500/- increased to Rs 3000/- proposed by Dr Narendra and seconded by Dr Dhepe
 16. Members will pay Rs 1000/-per year to have link of ACSI website on their website. Rate revisable annually.
 17. It was decided that Journal access should remain open access only. There is no plan to charge in near future as it will increase reach, accessibility and popularity of Journal and Association.
 18. Appointment of heads of various committees.
 - Central council: all past office bearers
 - Constitution committee : Dr Putta Srinivas
 - Dermatosurgery Textbook: Dr Venkataram Mysore
 - Conference Committee: Dr Koushik Lahiri
 - Website Committee : Dr Manas
 - Newsletter: Dr Raghunatha Reddy

Minutes of Meeting of ACS(I) Held at Aurangabad ACSICON on 27 Nov 2010

- Finance Committee: Chaired by Dr Tawde and will be supported by Dr Sacchidanand and Dr K G Singh
 - Legal & Ethical committee : Dr P Srinivas
 - Technical advisory committee : Dr Aurangabadkar, Dr Buddhadev and Dr Dhepe
 - Dermatosurgery Quiz-Dr Dhepe to report by Gurgaon.
 - Certificate course- Drs Sacchi, Dr Sharad Mutalik and Vinay Saraf
 - Dermatosurgery Registry-Dr Niti Khunger
19. ACSI will approve centres for hands on training certificate courses and will certify the same. Fees charged will be shared by ACSI and the centre.
 20. It was decided that during next conference, forms would be filled at Registration from all members to update database.
 21. Rs 3000/- per month for clerical work at Secretary office was proposed by Dr Manas and approved by body
 22. All financial documents and control to be handed to the new secretary and treasurer.
 23. Future conferences:
 - ISDS meeting 2012 March at Delhi with annual ACSICON. MOU to be discussed in DERMACON
 - ACSICON to be arranged annually with 1st Day surgical workshop.
 - 2012 ACSICON, November at Bangalore. org. chairman- Dr Venkataram Mysore, org. Secretary- Dr Raghunatha Reddy R, Scientific chairman –Dr S Sacchidanand
 - 2013 ACSICON at Hyderabad to be organised by Dr Sanjeev Aurangabadkar
 24. Multicentric trails for Isotretinoin safety, vitiligo stability:
 - Dr Imran to coordinate vitiligo stability trial.
 - Dr C R Srinivas to design proposal of trial on Isotretinoin.
 25. One more oration in ACSICON: Dr Dhepe will explore possibility of fund raising. In principle agreed to have one more. Will start after 2 years, subject to fund raising.
 26. The meeting ended with a vote of thanks to the outgoing committee.

CRS Becomes President Elect of IADVL

It is with great pride and happiness that ACSI congratulates Dr Chakravarti Rangacharlu Srinivas, who was elected the President Elect of IADVL. He will assume office as president in February 2012.

Dr C R Srinivas, affectionately known as CRS to his students, friends and dermatologists in India and around the world, is a much admired and respected figure, for his outstanding clinical skills, deep knowledge of the subject, pioneering research efforts, erudite oratory, and dedication to teaching, Sense of humor and constructive criticism. He has been an inspirational figure for a generation of dermatologists.



Passing out from Cuttack medical college, Berhampur, Orissa in 1980, he joined JIPMER Pondicherry as a senior resident where he honed his clinical skills. His joining Kasturba Medial College, Manipal, where he had a long stint ending as the professor and Head of dermatology lead to two decades of prolific and productive research in several areas of dermatology. His path breaking research in phototherapy, particularly PUVA and PUVASOL, was to prove inspirational in spurring several dermatologists to learn and establish this subspecialty in India. The epithet “Father of phototherapy in India” aptly fits his work in this area. His efforts in contact dermatitis, to start an Indian patch test series, lead to great awareness in this hitherto poorly established subject. Scores of young doctors trained under him and hundreds learnt from him (among them the undersigned) , listening to his lectures as he travelled widely, in India and abroad , regaling his audience with his erudite and articulate oratory, and mastery of the subject. This was also the time, when he produced several outstanding research papers, putting India on the international map and inspiring youngsters to take up research. He moved to PSG Medical College, Coimbatore, in the year 2000, where he continues his highly impressive academic work.

Awards and recognitions have followed him; IADVL Khandhari Oration, ACSIs PN Behl oration, and honorary FRCP (Glasgow) are prominent among them. His organizational abilities are legendary, as he continues his mission of teaching, research and patient care. He has a keen sense of humor and an uncanny ability to provide innovative and out of the box, if some what unconventional, solutions to problems and we earnestly hope he will take IADVL to the next level. He was one of the founding members and past president of ACSI- and this is the reason why we are particularly proud of his election. On behalf of the executive committee and all members of ACSI, I congratulate CRS and wish him a successful presidency.

Venkataram Mysore
President ACSI

10th National Conference of Association of Cutaneous Surgeons (india)

Dermato-surgery Fellowship Programme

**ACSICON 2011
NOVEMBER 25-27, 2011
Iora, kaziranga, Assam**

The Organizing Committee takes the privilege and pleasure to invite you to ACSICON 2011 at Kaziranga, Assam from 25th to 27th November, 2011. The endeavour will be to make this event a holistic academic and wildlife experience for the delegates.

CONFERENCE HIGHLIGHTS

Recent updates and latest concepts in

- Wound healing & scar management
- Melanocyte transplantation
- Nail surgery
- Facial rejuvenation, liposuction & body sculpting
- Mesotherapy, newer peels & fillers
- Lasers in Asian Skin

REGISTRATION TARIFF

Category	Upto 31 st March, 2011	Upto 30 th June, 2011
ACSI Member	Rs. 4000	Rs. 5000
Non ACSI Member	Rs. 8000	Rs. 9000
Accompanying person *	Rs. 3000	Rs. 4000
Postgraduate student **	Rs. 3000	Rs. 4000
Foreign delegates	US\$ 250	US\$ 300

Note: All remittance (other than electronic transfer) to be sent by registered post/courier mail

* Registration is free for children below 6 years

** Post Graduate Students should attach a letter from Departmental Head

PAYMENT MODE

1. Demand Draft drawn in favour of "ACSICON 2011" payable at Guwahati, Assam
2. Electronic transfer: A/C name: ACSICON 2011; A/C No.: 31602712415; Bank details: State Bank of India, Gauhati Medical College Branch, Guwahati, Assam; IFSC Code: SBIN 0007700

**Conference Secretariat
Dr. Shyamanta Barua**

Organizing Secretary, ACSICON 2011
Department of Dermatology, Assam Medical College & Hospital,
Dibrugarh - 786002, Assam, India
Mobile: +91 94355 46944, Email: drshyamanta@gmail.com, Website: www.acsinet.net

Dermatology is a fascinating subject. It is growing by leaps and bounds and is no more considered to be under Internal Medicine. It has acquired several wings like Dermato-pathology, Dermato-surgery, Medical Cosmetology, Trichology, Contact Dermatitis and Pediatric Dermatology and is growing. These offshoots have made Dermatology all the more attractive. Coupled with comfortable practice hours and attractive monetary incentives, it is one of the most sought after specialties at present.



Dr. S. Sacehidanand
M.B.B.S., M.D., D.V.D., D.H.A
Vice-President, ACSI

This rejuvenated interest in the specialty has made it all the more necessary to introspect our UG and PG curriculum. We need to train our postgraduate students in these newer branches of Dermatology. Equip them to handle such cases during their practice. The situation demands thus. Unfortunately, there is no formal training either in our UG or PG curriculum to impart knowledge in these aspects. Not only there is a need to sensitize our postgraduates but also plan structured programs to provide hands on training to deserving and aspiring youngsters. The future of Dermatology lies in the fact that our young graduates need not only have sound clinical knowledge in the basics of Dermatology but also update their skills and acumen in these new fields of interest.

Keeping these things in mind and to create opportunities to learn Dermato-surgery to those who wish to learn, during 2002, I made an attempt to start a one year full-time structured Dermato-surgery fellowship under the aegis of Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore. It took almost another two long years to convince the concerned authorities as regards to the need for starting such courses. Text books on Dermato-surgery and Journals of Dermato-surgery were exhibited as evidence to prove my point! They had the fixed idea that Dermatology is essentially a branch of Internal Medicine and what surgeries will they do? They were also worried about encroachment in the field of Plastic surgery too. Drawing out a detailed curriculum which clearly showed that we were concerned with surgeries pertaining to Dermatological conditions and after repeated visits to the University finally I got the green signal to start the course at Bangalore Medical College. Now the course is already in its Sixth year with twice as many students already graduating as Dermato-surgeons! It has also been started at St. Johns Medical College since three years.

It is a full fledged one year structured course teaching the students the basics of surgery, OT etiquettes, suturing techniques, vitiligo surgeries, hair transplantation, excision of small skin tumors and scar revision. We have a tie-up with Plastic Surgery department to train the students in basics. Every year both in January and July, two students each are admitted through interview and selection process. The admissions are open for both Diploma and Degree students. They need to maintain a log book recording their activities. Seminars, journal clubs, CME presentations, workshops are held as a part of the curriculum. At the end of one year, the students will have to write two theory exam papers and undergo practical and Viva examinations subsequently. Those who score 50% and above are declared pass. RGUHS awards the fellowships in its regular convocation. We have also started fellowship programs in Medical Cosmetology and Paediatric Dermatology too. We are planning to start fellowships in Trichology, Dermato-pathology and Contact Dermatitis in the near future. My fervent appeal is that more and more such courses should be started at several centers so that many of our young postgraduates get an opportunity to learn and develop these skills. Dermatology on the whole benefits. I wish that ACSI takes initiatives in this direction. The following centres are recognised by Rajeev Gandhi University institute of health Sciences in Bangalore for fellowships:

1. Bangalore medical college: Dermatologic surgery, medical cosmetology, Paediatric dermatology
2. St John's medical college: Dermatologic surgery
3. Venkat Charnmalaya -centre for advanced dermatology-medical cosmetology
4. Kempegowda Institute of Medical sciences, bangalore Medical cosmetology

The next selections for these fellowships will be due in June 2011

Surgical Management of Vitiligo

* Dr. Raghunatha Reddy R.M.D. DNB, FRGUHS(Dermato-surgery), ** Dr. ShashiKumar B M, MD

*Professor & HOD, Dept. of DVL., PESIMSR, Kuppam

Consultant Dermatologist & Dermato-surgeon, Mathapitha poly clinic, Bangalore.

Phone-09845007154, E – mail, raghunatha18@yahoo.com,

** Assistant Professor, Dept. of DVL, MIMS, Mandya. shashi_b_m@yahoo.com

Introduction:

Vitiligo is an acquired cutaneous hypomelanosis with a 0.5–2% incidence worldwide, without predilection for sex or ethnicity and with great cosmetic distress leading to social stigma. It has a profound psychological impact and greatly affects the quality of life. Surgical management for Vitiligo is an important therapeutic option, for the management of vitiligo. However it can be a complete therapy with successful results only in localized and stable vitiligo, it should be combined with other modalities of therapy for the successful and acceptable results.

The most important factors for success of the vitiligo surgery are the Stability of the disease, cosmetic acceptability, and the rapidity with which the results can be obtained post surgically.¹

Most of the surgical therapies, except tattooing works with the important concept called “DONOR DOMINANCE PRINCIPLE”, which enables the pigment retention over the recipient site.²

Vitiligo may be treated by Various surgical procedures and they work by different principles, the following are the surgical options for the treating dermatologist to choose from, depending on the type, and site of vitiligo and needs of the patient^{1,3,4}

1. **Tattooing:** Introduction of artificial pigments into the lesion.
2. **Vitiligo surgeries by different types of skin graftings-** Repopulation of the depleted melanocytes by various grafts, for example,
 - a) **Split thickness skin grafting (SSG)/Thiersch's grafting**
 - b) **Ultra thin SSG**
 - c) **Suction blister grafting**
 - d) **Miniature pocunch grafting**
 - e) **Non-cultured epidermal cell suspension or Transplantation,**
 - f) **Epidermal melanye culture and transplantation**
 - g) **Hair grafting**
3. **Removal of the de pigmented areas:** (Dermabrasion, surgical excision)
4. **Therapeutically wounding:** (Stimulate the melanocytes present in the normal pigmented skin around the lesion and the black hair follicles to proliferate, migrate and re pigment the lesion) E.g.: Dermabrasion, laser ablation, cryosurgery, Needling, Spot chemical peeling (Phenol or TCA).

Surgical Management of Vitiligo

Patient selection criteria

Patients should be thoroughly evaluated with respect to the age of the patient, the type of vitiligo, sites involved, extent of involvement, skin type of the patient, stability of the vitiligo and most importantly the realistic expectation. All the patients should be properly counseled and be explained about the possible results, side effects and complications. The ideal patient should be one with localized stable vitiligo, over the exposed areas, not responding to adequate medical line of management or PUVA or NBUVB and with realistic expectations.

Stable vitiligo:

The outcome of surgery is good in stable lesions whereas unstable lesions respond poorly. Thus, the Stability of vitiligo is the most important prerequisite in case selection. However the recommended period of stability in different studies has varied from four months to three years, in this regard the Task force for IADVL Guidelines on Dermato surgery authored by Dr Davinder Prasad and Dr Somesh Gupta has recommended, “vitiligo can be classified as being stable when there is no progression of old lesions and/or development of new lesions during the past **one year**”³

Njoo et al. in 1999 suggested a set of objective criteria - the vitiligo disease activity score (VIDA), it is a 6-point scale on which the activity of the disease is evaluated by appearance of new lesions or the enlargement of preexisting lesions gauged during a period ranging from, < 6 weeks to one year.⁵ The task force recommends that surgery for vitiligo should be performed only in patients with VIDA score of -1 or 0 (level D). 3 t surgery for vitiligo should be performed only in patients with VIDA score of -1 or 0 (level D).³

Parameters for establishing stability of vitiligo are³

- History of progression: Absence of new lesions
- No extension of old lesions
- Absence of Koebner phenomenon
- Mini grafting test or test grafting: The original test was proposed by Falabella⁶ et al. The test was considered positive if unequivocal re pigmentation took place beyond one mm diameter from the border of the implanted grafts, over a period of three months. Although this test has been considered as gold standard for establishing stability and success of re pigmentation, doubts have been expressed over its utility. It has been seen that even if the mini graft test is positive the disease itself may be unstable.³
Another important issue related to stability in generalized vitiligo is, even if the disease is stable for many years it can become active any time and the re pigmentation attained may not sustain to persist

Contraindications for vitiligo surgery;

Are similar to any other Dermato-surgical procedures and Active vitiligo, Infection, Keloidal tendencies, bleeding disorders, Atrophic overlying skin

Surgical Management of Vitiligo

Miniature punch grafting:

Among all the available surgical methods, miniature punch grafting using skin punches is the easiest, fastest, and minimally expensive method,⁷ and it can be performed by a dermatologist with minimal surgical skills. For these reasons it is the most often employed surgical procedure for the surgical management of vitiligo.

Before surgery all the precaution should be taken and the patient should be prepared similar to that of any other minor surgical procedure and strict aseptic precautions are to be adhered to and an informed consent must be taken explaining all the possible side effects complications and the possible outcome.

The newer disposable punches of the cutting diameter of 1.5, 2mm are the ideal punches, preferably with recipient site punches generally being 0.5 mm smaller than the donor site punches or of the same size the use of punches with larger diameter than 2 to 2.5 mm increases the chances of cobble stoning, so should be discouraged.

A mini grafting test is recommended to be performed three months before performing the surgery for larger areas, this test is more appropriate to the MPG compared to other procedures in assessing the outcome of the surgery, apart from assessing the stability

Method

The instruments required for the surgery are, 1.5 and 2 mm disposable sterile punches, jeweler's forceps, and a small curved scissor.

Recipient area is prepared first; 2% Lignocaine with or without adrenaline is infiltrated as local anesthetic, if larger areas are to be infiltrated the Lignocaine should be diluted to 1% to avoid complication and toxicity of xylocaine over dosage

Mark the area to be grafted with a sterile marker. To minimize the chance of developing achromic fissure, the initial recipient chambers are made on or very close to the border of the lesion, the recipient chambers are to be spaced according to the results of the test grafting or at a distance of 5-10mm from each other⁷. Overcrowding or spacing the grafts too widely may both be counter productive for the optimal results

The donor area is to be selected from upper lateral portion of the thigh, gluteal region, and upper medial aspect of the arm or post auricular area, depending on various factors, like patients likes and dislikes the area to be grafted and the number of grafts required

Punches should be held between the thumb and index and middle fingers and supported by the other hand while punching with rotator motion and the punches are to be made as close as possible without overlapping to obtain maximum number of grafts and enabling better healing of the donor area. The size of the punches should preferably be 0.5 mm larger than the recipient site or of the same size and ideally 1.5 or 2 mm size

The grafts can be directly placed from the donor site to the recipient area to save time and reduce the chances of infection⁷ and also avoid the wastage of grafts, or may be stored in a sterile bowl containing cold saline and transferred to the recipient area later. While placing the grafts, care should be taken to place the grafts in the right direction avoiding placing them upside down, and pressing the grafts with the flat surface of the scissor, to snugly fit in the recipient site, if the grafts are still floating the dermal portion of the graft can be trimmed with the scissor by placing the graft over the finger tip with the graft placed upside down (authors technique), and refitted. And haemostasis is achieved by applying pressure with saline soaked gauze taking care to avoid dislodgement of the grafts

Surgical Management of Vitiligo

The wound at both the sites is dressed with sterile paraffin soaked non adhesive gauze as the first layer than followed by sterile cotton gauze and cotton pads and the micro pore adhesive plaster, the recipient area may be made immobile if necessary over the sites like joints. Proper instructions, like avoiding soaking and disturbing the area are advised particularly for the sites like lips

Dressing is preferably changed on the second or third day, over the recipient area, but changed over the donor site after 5 to 7 days. However it is not always necessary to change the dressing over the recipient area on the second day, if all the precautions are adhered to, to avoid dislodgement and infection

The patient is given oral antibiotic like Ciprofloxacin or as per the surgeon's choice in the appropriate dose for 5 to 7 day along with NSAIDs for 3 days

Post surgically either medical line of management or PUVA/PUVASOL, or NBUVB is given, starting 3 to 4 weeks after the grafting, for three months to sufficient time till the complete re-pigmentation occurs

The results are usually good with good to intense re-pigmentation, if the procedure is properly executed, but the most important problem / side effect is the cobble stoning (Figure 1), which is not acceptable over the cosmetically important areas like face, lips etc. But if the sizes of the punches are small, the cobble stoning may slowly flatten out. If the cobble stoning persists it may be addressed with superficial electro fulguration, Radiofrequency ablation or Dermabrasion,

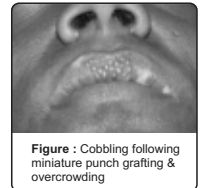


Figure : Cobbling following miniature punch grafting & overcrowding

Advantages of the Miniature punch grafting

Simplicity of technique (an extended biopsy procedure), relatively larger areas can be covered, 1 Good to intense re-pigmentation,

The major disadvantage is the COBBLE STONING, initially seen in almost all cases, but if persists, is cosmetically unacceptable to the patient, so this is not an ideal technique for areas like face, lips, and other visible sites (authors view), while it can be good option for covered areas, over the joints, palms and soles and finger/toes.

Nipple and areola are the most appropriate sites for the MPG, because cobble stoning, considered to be the bane of MPG will be a major boon as they resemble natural Montgomery glands. If the nipple is also involved in the male patient it can be excised completely and replaced by the same sized graft, for its reconstruction. (Authors recommendation).

Suction blister grafting technique

“Split at the dermo-epidermal junction (blister) by application of suction by negative pressure to normal pigmented donor skin and grafting these epidermal sheets (blister roofs) to the dermabraded recipient site”

Most melanocyte transplantation techniques using non-cultured melanocyte-bearing donor skin involve transplantation of dermo-epidermal grafts with the exception of epidermal graft obtained by suction blistering³.

Presently; the only reliable technique to harvest “pure” epidermal grafts is through suction blistering⁸ as the cleavage occurs just below the basal cell layer and without any damage to melanocytes. Many authors have recommended various procedures like raising blister b

Surgical Management of Vitiligo

y applying psoralenes followed by photo therapy and by cryo therapy, but the evidence is lacking regarding their potential to destroy the melanocytes, particularly in cryo blisters as the lethal temperature for melanocytes is -40 C. (authors view).

The blisters may be raised from the donor sites, preferably, the medial aspect of the upper thigh with the use of a negative pressure Cutaneous suction chamber system to which different sized and shaped glass cups are attached and fitted snugly and held in place with minimal, pressure till the negative pressure is sufficient to hold the cup in position.

Syringes of 10, 20, or 50 ml may be used after de plunging and placing the base snugly fit over the recipient area, and to the nozzle a three way or two way cannula is attached, in such a way one is fitted to the syringe placed over the recipient site (Figure 2), the other is fitted with the same sized syringe to induce negative pressure by suction, and the third one to the manometer interconnected with a rubber tubing to fit them air tightly (Innovative technique by Dr Somesh Gupta and Dr Bhushan Kumar, India). Multiple syringes may be used to raise multiple blisters based on the requirement of the recipient area, in the same sitting.

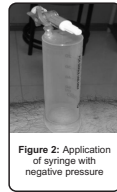


Figure 2: Application of syringe with negative pressure

Alternatively suction apparatus system of microdermabrasion can be used, for induction of negative pressure.⁹

Various authors have suggested different range of ideal negative pressure (-200 to -500 mm hg.), Dr Gupta and Kumar suggests that, the ideal negative pressure is -300 to -400 mm hg., by both syringe or cups technique¹⁰, while a very low pressure may fail to raise the blister, very high negative pressure above -500 mm hg. May result in the failure to raise the blister or may rupture the blister³.

Usually it would take 90 minutes to 120 minutes, for the blister to form⁸; however the author suggests the following modifications for the technique to make it quick and easy, (1 to 4 as below)

1. Infiltrate 2ml - 5ml of normal saline to the base of the proposed blister site into the dermis without piercing the needle directly over the proposed site for raising the blister (Figure 3). Insert the needle of the syringe 1-2 cm away from the border of the proposed site and enter the needle intradermally to reach below the proposed site and infiltrate the saline in the dermis. (May work by providing firmer base and possibly by a mechanism similar to salt splitting technique). This, Significantly reduces the time for induction of blister (authors technique)
2. Inducing negative pressure can be painful and has to be borne by the patient for nearly 1 to 2 hours, and can be very discomfoting, the pain can be reduced by mixing 2 % xylocain with normal saline in 1:1 concentration and injected in the same manner as described in the above paragraph
3. If the blister is not a single and unilocular or incomplete (Figure 4), inject 2- 3 ml of normal saline by piercing the needle 1-2 cm away from the outer margin of the blister and enter the cavity of the blister from the dermal side without disturbing it and inject the saline slowly into the blister cavity (Figure 5), till all the multiple small blisters will get merged into a single large blister, taking care not to rupture the blister. By this technique usually an incomplete blister can be converted into a complete and unilocular blister, since sufficient cleavage must have already taken place, by the negative pressure applied.

Surgical Management of Vitiligo



Figure 3: Injecting saline mixed with 2% Xylocain intradermally at the donor site for rising blister

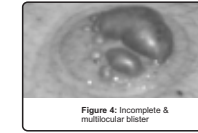


Figure 4: Incomplete & multilocular blister



Figure 5: Injecting normal saline into the blister, piercing needle away from the blister margin and from below

4. If the blister still does not arise the same area may be taken out as a graft, from a blade attached to the haemostatic forceps, or graft harvesting knives and grafted on the recipient site.
5. The recipient area is prepared surgically and superficially dermabraded to the level of upper papillary dermis by motored dermabraders, or initially abraded superficially by radiofrequency (Figure 6) (authors recommendations), Erbium: YAG LASER which makes it easy to dermabrade the tough keratinized epidermis, but the same area should be further dermabraded lightly with manual dermabraders (Figure 7), to remove the damaged tissue produced by the above procedures by the lateral heat

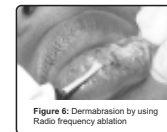


Figure 6: Dermabrasion by using Radio frequency ablation



Figure 7: Manual dermabrasion following RF ablation

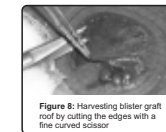


Figure 8: Harvesting blister graft roof by cutting the edges with a fine curved scissor

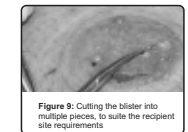


Figure 9: Cutting the blister into multiple pieces, to suite the recipient site requirements

The graft (roof of the blister) may be harvested by carefully cutting the edges with a fine curved scissor (Figure 8), all around and a clean glass slide laced with an antibiotic ointment/cream is placed over the graft so that it adheres to the slide with its undersurface facing upwards. This slide with the graft is placed over the dermabraded recipient site with its undersurface (dermal side) facing downwards and the graft is spread with graft spreaders to spread it uniformly, covering the recipient site beyond the margins of the lesion.

6. If the recipient area is linear, the graft may be cut into multiple pieces with the help of a non toothed thumb forceps and scissor as per the requirement before cutting the graft at its periphery (Figure 9), and these bits of grafts are transferred directly on to the recipient bed and adjusted by spreading it (useful for lip vitiligo - authors modification).

After waiting for few minutes fine (small) drops of tissue glue may be applied over the edges of the grafted blister grafts, with the help of a needle attached to the nozzle of the glue tube from a safe distance (Figure 10) so as to prevent grafts getting attached to the glue tube. Wait for sufficient period for the glue to dry and apply the dressing with Sterile, paraffin soaked gauze, cotton pad and micro pore adhesive plaster carefully without disturbing the grafts. The donor area is dressed the same way.

The patient is advised to take measures not to disturb the area, to prevent dislodgement of the grafts, for at least 1-2 days.

Author proposes to dermabrade the recipient area as superficially as possible for the faster healing and also prevents edema, swelling and infection and also enables us to remove the dressing in 3-4 days.

The patient is given appropriate oral antibiotic and NSAIDS, for 5 days.

Surgical Management of Vitiligo

Usually the pigmentation will be seen as early as 1 week after healing of the wound and as the time progresses the pigmentation increases to leave a slightly hyper pigmented area, which resolves slowly,

Advantages

Suction blister grafting results in cosmetically more superior results over the lips, face and other visible areas, with uniform pigmentation

Disadvantages

Time consuming, skilled procedure and not an ideal procedure for the larger areas to be grafted

The observation of the author suggests that blister grafting can be better alternative to tattooing, over the lip and face for the person in a hurry due to compelling circumstances to get the vitiligo patch covered with pigmentation by tattooing and the author also discourages the tattooing for multiple reasons.

Split thickness skin grafting (Thiersch's grafting) (SSG)

Free transfer of epidermis along with a portion of dermis (upper papillary dermis).¹¹ It is a time tested and commonly practiced procedure for surgical management of vitiligo since many years. This procedure is done to re pigment small to moderate sized stable vitiligo patches except over the face It is a skilled procedure to be done by a trained Dermatologist-surgeon,

The pre surgical preparation and procedure is same as that for any other grafting. If the recipient area is larger, spinal anesthesia may be required to take a larger graft. Otherwise graft can be taken by local infiltration of 1% xylocaine field block in the donor area.

To harvest the graft the ideal site is the gluteal region, medial or lateral aspect of the thigh and the medial aspect of the arm. While harvesting the graft the role of the assistant is more important to apply the counter pressure from below to provide uniform, smooth, and a firm surface which is very essential to take the graft.

It is also very important to adjust the skin grafting blade into the Humby's knife with a hair thin gap between the blade and the leading rod, which is an acquired skill by the surgeon by experience.

A sterile lubricating oil / jelly are applied on the surface of the skin after preparing the donor site. Assistant is advised to apply counter pressure and another assistant helping to stretch the skin in one end and the operating surgeon applying the counter traction on the other end (Figure 11). The knife is placed with a 20-30 degree angle and with a uniform smooths to and fro movements a thin graft is harvested as per the requirements of the recipient area. The harvested graft is transferred to the bowl containing sterile cold saline. However power driven dermatomes may be used with experience, and conveniently

The donor area is dressed with a paraffin soaked gauze and cotton pads.

The recipient area may be dermabraded by the motor dermabraders or if the anatomical site is conducive, the donor site may be prepared by removing the epidermis and superficial dermis by a Humby's knife. Similarly as explained above to harvest the graft. The harvested graft is transferred on to a sterile wooden slab with the dermal side facing upwards and multiple windows are made by stabbing the graft at equidistance with the tip of a number 15 blade (meshing). The advantages of meshing are, to increase the surface area of the graft to cover more recipient area and also serves to drain the exudates or blood, which prevents hematoma formation and infection and hence the chances of graft survival



Figure 11: Harvesting ultrathin SSG

Surgical Management of Vitiligo

The grafts are secured to the recipient bed by suturing it at the edges to the skin and at few places in the centre, complete haemostasis achieved by gentle and careful pressure with saline soaked cotton pads. And dressing applied with sterile, paraffin soaked gauze, cotton pads and micropore adhesive plaster. Wherever necessary, the part should be immobilized by applying plaster of Paris casts or by other immobilization methods for a period of 5-7 days. Patient is given appropriate oral antibiotic and NSAIDS

The dressing is changed after two days to inspect the graft take and survival, and the second dressing along with that of the donor site is removed after 8-10 days.

A Modification of the above technique, by taking very thin (**ultra thin**) SSG, and grafting the same on to a recipient area in a similar fashion as described above has more advantages than the routine SSG. The grafts take up better than the routine SSG, and the possibility of stuck on appearance can be avoided. The thickness of Ultra thin split thickness graft is 0.005 inch / 0.1mm thin epidermis obtained by dermatome¹¹. By this technique, the re-pigmentation can occur even if the graft is rejected after few days or if it dries and falls off. This technique works by the mechanism almost similar to non-cultured melanocyte transfer.

The partial/split thickness skin grafts can be utilized for multiple purposes by a Dermatologist-surgeon, for example, obtaining melanocytes or epidermal suspension, for cellular grafts, for the treatment of non healing ulcers etc. So, it should be the priority of every Dermatologist-surgeon to master the technique of harvesting the SPLIT THICKNESS SKIN GRAFTS (SSG),

FACTORS DECIDING THE TYPE OF VITILIGO SURGERY^{12,3}

Size, site and pattern of lesion, along with age, are some of the important factors to decide about the type of vitiligo surgery which can give optimal results to the patient, however, facilities and equipment available and dermatologists lack of knowledge and skill to perform the best possible procedure should not be the reason

One's expertise along with experience, Cost effectiveness of the procedure, Time interval and location of the lesion apart from the above mentioned reasons do play an important role in choosing the best procedure suitable to a particular anatomical site

The following are the best possible procedure to the particular sites in that order of preference

Angle of the mouth - Tattooing, (if the vitiliginous lesions are very small over the angles of the mouth) and blister graft

Lips- Suction blister, ultra thin SSG, Cultured / non cultured epidermal cell suspension, miniature punch graft, tattooing (least preferred)

Tips of fingers & toes, palms, nipple, areola and scrotum – Miniature punch graft, ultra thin graft, non cultured epidermal cell suspension / cultured melanocyte grafting

Hairy areas - Miniature punch graft or thin split skin (Thiersch's) graft, epidermal cell suspension

Eyelids - Thin split skin (Thiersch's) graft, miniature punch graft or suction blister graft

Based on Size of the lesion¹²

Small lesions (1-4mm): Suction blister graft, split skin (Thiersch's) graft, ultra thin graft, non-cultured / cultured epidermal cell suspension or surgical excision and closure

Surgical Management of Vitiligo

Large patch (>4cm):

Spilt skin (Thiersch's) graft (SSG), ultra thin graft, miniature punch graft, non-cultured epidermal cell suspension

Take Home Message

Dermato-surgery can be rewarding in cases of stable vitiligo.

Appropriate selection of technique, to a particular patient's type of the disease, size and anatomical site of the lesions, plays a major role in achieving good cosmetic end results. One may have to adapt surgical procedures as per the patient's needs, and the treating doctor's lack of skills or the facilities should not be the criteria to select the type of the procedure

Each technique has its own advantage and disadvantage, but the aim of the surgeon should be to get the best possible and cosmetically acceptable results for the satisfaction of both the patient and the treating doctor.

References

1. Savant S S. Textbook of dermatosurgery and cosmetology. 2nd ed. Mumbai: ASCAD; 2005. Chapter 35, Introduction to vitiligo surgery; p.336.
2. Beck HI, Schmidt H. Graft exchange in vitiligo. Studies on the outcome of exchanging biopsies from vitiliginous skin to normal, pigmented skin and vice versa. Acta Derm Venereol. 1986;66(4):311-5
3. Parsad D, Gupta S. Standard guidelines of care for vitiligo surgery. Indian J Dermatol Venereol Leprol 2008;74:37-45.
4. Bahadoran P, Ortonne JP. Classification of surgical therapies for vitiligo. In: Gupta S, Olsson MJ, Kanwar AJ, Ortonne JP Editors. Surgical management of vitiligo, Blackwell publishing; 2006. p.59-68.
5. Njoo MD, Das PK, Bos JD, Westerhof W. Association of the Kobner phenomenon with disease activity and therapeutic responsiveness in vitiligo vulgaris. Arch Dermatol 1999; 135:407-13
6. Falabella R, Arrunategui A, Barona MI, Alzate A. The minigrafting test for vitiligo: Detection of stable lesions for melanocyte transplantation. J Am Acad Dermatol. 1995;32:228-32.
7. Malakar S, Lahiri K. Minigrafting for vitiligo. In: Gupta S, Olsson MJ, Kanwar AJ, Ortonne JP Editors. Surgical management of vitiligo, Blackwell publishing; 2006. p. 87-95.
8. Gupta S, Goel A. Suction blister epidermal grafting. In: Gupta S, Olsson MJ, Kanwar AJ, Ortonne JP Editors. Surgical management of vitiligo, Blackwell publishing; 2006. p.96- 107.
9. Kaliyadan F, Manoj J, Venkitakrishnan S. Using a microdermabrasion machine as a suction blister device. Indian J Dermatol Venereol Leprol 2008;74:392-3.
10. Gupta, S. and Kumar, B. (2000), Suction Blister Induction Time: 15 minutes or 150 minutes?. Dermatologic Surgery, 26: 754-757.
11. Savant S S. Textbook of dermatosurgery and cosmetology. 2nd ed. Mumbai: ASCAD; 2005. Chapter 37, Thin Thiersch's split thickness skin grafting; p.335-8.
12. Savant S S. Textbook of dermatosurgery and cosmetology. 2nd ed. Mumbai: ASCAD; 2005. Chapter 43, Vitiligo surgery: Which? Where? Why?; p.394-7.

The Advent of Surgical Dermatology in India in Antiquity

"Dermatologists are therapeutically eclectic. Not only they are well grounded in dermatopathology, but they are versatile in choosing procedures. They are neither plastic surgeons nor cosmetic surgeons, but rather specialists in surgery of the cutaneous surfaces. The term 'plastic' comes from a Greek word meaning to mold or to shape. Although this applies to 'molding' a nose or breast, it does not apply to hair transplantation. The term 'cosmetic' comes from a Greek word, meaning to adore or to beautify. Actually the origin of the term in Greek itself meant to set in order, since 'cosmos' means order. 'Cosmetic' is preferable than 'plastic', because of its other Greek meaning it is less than perfect. So the word corrective is the most suitable term, and **corrective cutaneous surgery as most applicable to the work performed by dermatologic surgeons'**



Dr. Koushik Lahiri

Richard G. Bennett

Cutaneous surgery is a relative neophyte as an independent member of dermatologic community. But its root goes well back to ancient times. Corrective surgery or various forms of plastic surgery were performed way back during the Vedic period in 3500 BC in India. The history of Indian Dermatology dates back to 1400 BC when the first report of 'phototherapy' in Dermatology using some plant extracts and sunlight exposure was used in some dermatological conditions.

The first documented/recorded treatise was **Sushruta Samhita** published in 800 BC. This astonishing book incorporated astonishingly sophisticated techniques of reconstructive surgery of mutilated noses, ears and lips, even treatments of fractures and dislocations of bones. This book was based on the lectures on major surgery (**Shalya**) by **Dhanwantari**, a teacher of Sushruta. Sushruta in his milestone book described path breaking techniques of plastic surgery were used, to raise a depressed scar (**utsadanakarma**) or depress the raised scar (**abasadanakarma**), softening a hard scar (**mridu karma**), hardening a soft scar (**daruna karma**) darkening a white patch (Krishna karma) or whitening a dark patch (pandu karma) unwanted hair removal (**roma apaharana**) or even hair transplantation (**roma sanjanama**). Sushruta in his treatise laid down fundamental principles of plastic surgery. He documented a detailed list of 125 instruments.

The great Physician-poet of Taxila University **Atreya** who first observed a couple of thousand years back that Leprosy is a disease and not a curse! His student **Jeevaka**, a friend of Lord Buddha in 2nd century BC used to perform cosmetic surgery with such precision that scars were hardly visible.

In 4th century AD, **Vagabhatta** compiled another book **Ashtanga Hridaya Samhita** where he described detailed steps of rhinoplasty by rotation flap from cheek and techniques of scar removal.

References:

1. http://en.wikipedia.org/wiki/Sushruta_Samhita
2. http://www.newsfinder.org/site/more/jivaka_kumarabhacca/
3. http://www.easternbookcorporation.com/moreinfo.php?txt_searchstring=143
4. http://www.itm.org/publications/AyurVijnana/Vol_03/AV_V03_1.htm
5. Cordier, Palmyr. Vagbhata. Etude historique et religieuse. In: Journal Asiatic. Paris 1901. P147-181.
6. Sengupta S R. Dermatosurgery: Down the memory lane: Book of abstract: First National conference of Indian Academy of Cutaneous Surgeons. Kolkata. Page 21-25. 1997

Dermato Surgery Registry

Dr Niti Khunger M.D.DNB, DDV
Senior Specialist &
Associate Professor,
V.M. Medical College & Safdarjang Hospital,
New Delhi, Email - drniti@rediffmail.com

It has been a dream of mine to start a dermatosurgery registry since 2007 and I am happy to say that it will finally come to light by next month, with the help of the ACSI team, especially Dr Manas and Dr Venkat. Most doctors don't know what a registry is? I will attempt to give you answers.

What is a registry?

A registry is basically a collection of data related to patients with a specific diagnosis, condition, or a procedure. In its simplest form, a registry is a list of all the patients who share some characteristic, such as a certain condition, medication regimen or a surgical procedure. Most registries are generated by a computer application that captures and manages patient information.

Why have a registry?

A well managed registry is a key step to QUALITY IMPROVEMENT. At its simplest level it generates data. At their most sophisticated level, registries can produce detailed reports on both individual patients and patient populations that undergo a particular procedure, e.g. vitiligo surgery. They can provide data as to the safety and efficacy of a particular surgical procedure and also identify patients who aren't receiving a certain level of care. As a result, registries are a key element in collecting and tracking the usefulness as well as complications of a particular procedure. In other words, they help us to meet our treatment goals.

What the registry will do?

The Registry will record

1. Number and type of procedures done by the Participating Doctor.
2. Average duration of follow-up.
3. Number of successful cases.
4. Number of cases failed or with complications.
5. The Dermatosurgery Registry will document the side effects of the various Dermato surgeries performed.

To begin with retrospective data would be fed in the application. Then, the same can be updated by the Doctor with every surgery he/she performs later as well as follow up.

What are the advantages of a registry?

If a registry is filled and managed correctly, there are numerous advantages.

1. It can track how many surgical procedures are being performed.
2. What are the most common Dermato surgical procedures and how useful are they.

Dermato Surgery Registry

3. It can track whether a particular machine or laser is worthwhile and can also force manufacturers to justify their products or withdraw them. E.g. in Sweden several years ago, surgeons alerted by their national joint replacement registry stopped using a badly flawed hip, which had to be withdrawn. Hence they can also help patients save money on medical treatments which may not work.
4. It can alert doctors about complications that can arise out of a particular surgical procedure, e.g laser hair removal.
5. The Registry would be able to generate Reports of the above mentioned points as a group and as individual surgeries also.
6. Individual Dr can generate his/her own Report and also have access to the Community report.
7. The Administrator/s can generate a report as a whole.
8. As its password protected, the data cannot be accessed by any person who is not a participant within the Registry.
9. Community reports can be sent through email to all participants as an encouragement.
10. Grouping on basis of various parameters such as patient age group, disease, surgery, state etc.
11. It can generate reports on multi centric trials or try to give best possible choices. E.g. whether surgery should be done on patients using isotretinoin is the concept of stability of vitiligo correct etc. on a national level.
12. Any other report based on the data saved in database

The financial and human consequences are large when evidence exists but is not properly collected and disseminated.

Why should I fill a registry?

Many doctors would think why I should fill a registry when I don't have the time. What if you could keep track of all your patients, including their results, side effects and follow ups? You could also use that information to manage your patients more effectively. Such lists can be accessed and managed by anyone on your staff (including nurses, medical assistants and administrative staff) with minimal training.

You will also know what procedures or lasers give the best results. What works and what doesn't etc.

It will also save you money on software!

What about privacy of my data?

All information regarding individual doctors will be carefully protected in an anonymous fashion. The scientific community just pools information and presents it to the individual members.

Should I fill it seriously?

The quality of a disease registry is based on the quality of data fed into it and all the processes involved in updating it and keeping its integrity. In every registry there is always a risk of "Garbage In, Garbage Out". So it should be filled with responsibility. A wide range of studies and guidelines of care can be published based on the registry database.

Dermato Surgery Registry

What do I have to do?

The most difficult part of creating these registries is the initial data entry. Once you have created the initial worksheet, you can assign the maintenance aspects to any staff member, who will need to be trained only on how to update the worksheet and how to contact patients when services are due.

How are registries successful?

A registry that is based on a simple reporting system (approximately 1 minute is required to complete a single-page registration form) and the hospitals and individual doctors are provided with continuous feedback from the registry. These 2 factors

are believed to explain why the compliance rate of nearly 100% has not declined during 20 years of operation of the Norwegian Arthroplasty Register.

In short.....

Patient registries are established to improve the standard of health care. Specifically, they are meant to serve 3 purposes:

1. to improve treatment outcomes through feedback to the hospitals and surgeons,
2. to detect procedures and devices that result in premature failure,
3. to identify prognostic factors associated with good and poor outcomes.

However, to serve these purposes, the accuracy of the outcome measures used is critical.

So I request all ACSI members to join the dermatosurgery registry and make it a success.

ACSI Dermato-surgery Quiz for Post Graduates



Dr Dhepe Niteen MD
 Convenor, Dermatosurgery quiz,
 Joint Secretary, ACSI
 niteendhepe@gmail.com

Dear All,

It is my pleasure to announce the first Dermato-surgery quiz for dermatology postgraduates to be organized in each ACSI conference and in Kaziranga ACSI conference.

Aims and Objectives of PG Quiz:

1. To elevate awareness of Post Graduate Dermatology residents in India about Dermato-surgery, cosmetic dermatology and Lasers
2. To cultivate new generation of dermatologists inclined towards procedural dermatology on a sound scientific ground
3. To help smooth amalgamation of Dermato-surgery and cosmetic dermatology with main stream dermatology curriculum

Proposed Schedule of the quiz:

1. Convener of quiz : Dr Dhepe / Dr Manas or anybody approved in AGBM
2. Convener will announce the programme of quiz six months in advance from next conference date
3. Teams from various PG departments will be participating (max two per Institute)
4. Apply through Head of Department
5. Preliminary round with written test consisting of MCQ's and top four teams will be selected for the finals
6. Prizes : Rs10000/- for winners, 5000/- for runners.
7. Certificate will be issued to team mentioning name of department and college to display in their department and certificate will be issued to individual participant also mentioning their performance
8. Quiz will be organized on the first day of conference
9. Results of quiz will announced on last day during award paper sessions and prizes will be distributed at the hands of Honorable president in Valedictory function. We may call the professor of the winning team to accept prize (to increase their involvement in future quizzes)

Rules and Regulations:

1. Registration for conference is must before you enroll for quiz
2. You must be a ACSI member and resident in any PG Dermatology department of any teaching institute
3. Scope of syllabus for quiz includes all contemporary dermato-surgery books and publications.
4. Decision of quiz convener and/or quiz master will be final For enrollment in quiz, teams of PG residents may contact Dr Dhepe Niteen, niteendhepe@gmail.com

Sponsorship opportunities:

All dermatosurgery equipment companies, laser companies and cosmeceutical pharma companies are requested to sponsor the ACSI quiz. **ACSI Dewrmatosurgery Quiz** is the top-most awareness program in residents and PG students, who are the practicing dermatologists and dermatosurgeons of the near future. For sponsorship opportunities contact Dr Dhepe @ 09890225599, niteendhepe@gmail.com

Comparison of the Existing Q-switched Nd: Yag Lasers



Dr. Sanjeev J Aurangabadkar MD
 Skin & Laser Clinic
 1st Floor, Brij Tarang
 Green lands, Begumpet,
 Hyderabad, India 500 016

Q-switched Nd: YAG lasers remain the gold standard of therapy for the treatment of pigmented lesions and tattoos, especially in darker skin individuals. Adequate knowledge of the individual laser system with regard to fluence, energy, spot size and pulse duration is necessary and proper training on the laser system is a prerequisite for performing laser procedure on patients. The parameters used for lesions vary with individual systems and the manufacturers recommendations must be taken into account before undertaking the laser procedure.

Q-switching ('Quality' switching) is a technology that allows the laser pulses to be delivered in ultra short duration of time, typically in NANO seconds as is the case in Q-switched Nd:YAG lasers. These short pulses deliver very high energies in fraction of a second to rapidly heat the target and destroy it. Q-switched lasers work on the principle of selective photothermolysis and also produce an additional photoacoustic effect producing shock waves that cause explosion of target. The Q-switched lasers are available as standalone systems or as a part of multi application platforms.

Comparison of various QS Nd: YAG lasers

System	Pulse Duration	Frequency	Spot size and Max. Energy for 1064 nm			Spot size and Max. Energy for 532 nm			Merge
			2 mm	4 mm	6 mm	2 mm	4 mm	6 mm	
Palomar	2-5 ns	1- 10 Hz	2.5 mm	4.2J	1.6J	2.5 mm	4.2J	1.6J	Possible
			3.5 mm	6 mm	2.5 mm	3.5 mm	6 mm		
Quanta	5 ns	2, 5, 10 Hz	30 J	22 J	8 J	10 J	7 J	2 J	
			2 mm	4 mm		2 mm	4 mm		
VersaQS	5 ns	1- 10 Hz	15.9 J	3.95 J		9.45 J	2.37 J		
Precise PY 500 A	6 ns 1- 5 Hz	1- 5 Hz	Spot size variable with distance			Spot size variable with distance			
			Maximum energy 450 mJ			Maximum energy 300 mJ			
Medlite C6	5- 20 ns	Single shot 1, 2, 5, and 10 Hertz	1064 nm Spot sizes 1, 2, 3, 4, 5, 6 @ 3.0 mm spot size			532 nm Spot sizes 2,3,4,5 Energy density 400-1200 mJ/pulse			
Harmony XL	20 ns	1, 2, 5 Hz	1064 nm Spot sizes 1, 2, 3, 4, 5, 6 Energy density 400- 1200 mJ/pulse			532 nm Spot sizes 2,3,4,5 Energy density 400-1200 mJ/pulse			
RevLite EQ	5-20 ns	1, 2, 5, 10Hz	12.0 J/cm2 @ 3.0 mm spot size			5.0 J/cm2 @ 2.0 mm spot size			

The energy per unit area (fluence), the spot size, the mode of delivery of laser pulse and the pulse duration are important determinants of successful laser therapy of pigmented lesions and tattoos. A laser system delivering sufficient fluence at largest possible spot size should be chosen for treating dermal pigmented lesions and tattoos. For epidermal lesions, a spot size that closely matches the size of the lesion or remains confined within the lesion should be used. Most Palomar laser and the QS laser of Harmony XL have a direct beam delivery thus minimizing the optics necessary to deliver the laser to target. Whereas the Medlite and Quanta lasers have an articulated arm for laser beam delivery that incorporates more optics and mirrors but allows better ergonomics and flexibility of the hand piece. The Palomar laser has a 'Top-Hat' beam profile allowing minimal hot spots in the tissues. Whereas the articulated arm lasers produce a 'Gaussian' beam profile with a higher risk of hot spots in tissues there by theoretically increasing the risk of side effects. The Palomar laser has the shortest pulse duration where as the Harmony XL and the Medlite C6 QS lasers have longer pulse duration. The Precise PY system and the Harmony XI system have a maximum repetition rate of 5 Hz where as the other systems can go up to 10 Hz allowing fast treatment times. The various QS lasers available have their advantages and disadvantages and a decision on which laser is the best for an individual setup depends on the skill and comfort of the operator, the after sales service and stability of the laser system/platform and lastly the cost of the owning the machine. A careful, informed decision has to be made before choosing a given laser system.

Whats New in Sunscreen



Dr. Reena Rai,
 Dept. of Dermatology,
 PSGIMSR, Peelamedu,
 Coimbatore 641004
 Email drreena_rai@yahoo.co.in

Introduction

Dermatologic Surgery encompasses a wide variety of methods to remove or modify skin tissue for health or cosmetic benefit. Some of these procedures need photoprotection against harmful effects of sunlight to attain a better cosmetic result. These include laser surgery, chemical surgery, cryosurgery, electrosurgery, dermabrasion for which protection is mandatory. In order to achieve complete protection sunscreens should protect against ultraviolet (UV) portion of the light spectrum, and also by near infrared energy.

For many years the protective strategies has been centered on the UV part of sunlight, i.e., UVB (290-320 nm) and UVA (320-400 nm), because their relatively high photon energy causes macroscopic skin changes that are visible even after a short duration of exposure. However, UV radiation only accounts for approximately 7% of the sun's energy, which underlines the necessity to consider the detrimental effects from other parts of the sunlight spectrum. Infrared A (IRA) (760-1440 nm) may act as a damaging environmental factor to skin through its ability to endanger alterations in gene expression of skin cells at multiple points, resulting in accelerated skin ageing, and contributing to the development of cancer.

Complete Photoprotection by Sunscreens

Effective photoprotection must provide UV coverage, and also it should protect against IRA as well.

Primary Photoprotection

Primary photoprotection is achieved by using physical and/ or chemical UV filtering agents, which have been key active components in commercially available sunscreens. (Table 1) The most frequently used physical UV filters are the inorganic micronized zinc oxide and titanium dioxide.

Most chemical filters absorb UV energy across a relatively narrow or specific wavelength range, converting UV radiation to longer wavelength photons. Due to the limited absorption spectrum of any single ingredient, a combination of sunscreen actives is required not only to yield both UVA and UVB protection but also to make the sunscreen photostable.

Secondary Photoprotection

Secondary photoprotection involves the use of agents to counteract the inherent photochemical processes that can induce DNA damage in skin cells.

UVA damages the skin tissue through Reactive oxygen species (ROS) production and when the buildup of ROS from UV depletes the AOs reservoir, damage to the DNA, lipid membrane and protein can occur. Topical AOs exert their effect inside the cells and can reverse this shortage. Furthermore, once penetrated through the stratum corneum, they may remain active for several days. In addition, antioxidants have also been shown to protect against IRA. It is important to have molecules that are targeted toward mitochondria, because of their central role in IRA-induced adverse effects.

Antioxidants

Antioxidants that are used in sunscreens and cosmetic products are vitamins and polyphenols. Vitamins formulated in sunscreens are water soluble vitamin C and lipophilic vitamin E. Application of L-ascorbic acid has shown to protect UV-related damage as measured by erythema or sun burn cells. Topical application of a-tocopherol have demonstrated a number of protective effects including reduction in erythema, photoageing, photocarcinogenesis and immunosuppression.

Whats New in Sunscreen

Table 1
Sunscreens and their absorption Spectra

Organic filters	Sunscreen Active	Absorption (nm)
Aminobenzoates	Paba	283-289
	Padimate O	290-310
Anthralates		
Cinnamates	Meradimate	286,335
Salicylates	Octinoxate	311
	Cinoxate	289
Benzophenones	Octisalate	307
	Homosalate	306
	Trolamine Salicylate	260-355
Dibenzoylmethane	Oxybenzone	288,325
	Sulisobenzone	288,366
	Dioxybenzone	288,352
Camphor	Avobenzone	360
Miscellaneous	Ecamsule	345
Inorganic Filters	Octocrylene	303
	Ensulizole	310
	Zinc Oxide	382
	Titanium Dioxide	379

Silymarin

Silymarin a flavonoid, has strong AO effects and It inhibits UVB induced sunburn cells, prevent UVB induced pyrimidine dimers and reduce the number of UVB-induced tumors in mice 14

Green Tea Polyphenols

Green tea contains a rich level of polyphenols and as AOs, tea polyphenols are more potent than vitamins C and E. Aside from the AO functions, tea polyphenols also have anti-inflammatory and anticarcinogenic effects. 15

Osmolytes

Osmolytes are small molecules that control and stabilize the cellular environment by regulating hydration and responses to stress conditions. The osmolytes taurine 16 and ectoine 17 have been demonstrated to protect against detrimental UV effects and are incorporated into several commercially available sunscreens.

Conclusion

Complete topical photoprotection can be obtained only if a sunscreen formula incorporates both essential elements of primary and secondary photoprotection.

References

- Kochevar IE, Taylor CR, Krutmann J. Fundamentals of cutaneous photobiology and photoimmunology. In: Wolff K, Goldsmith LA, Katz S, et al. (eds). Fitzpatrick's dermatology in general medicine, 7th ed. New York: McGraw-Hill 2008,p797-808.
- Calles C, Schneider M, Macaluso F, Benesova T, Krutmann J, Schroeder P. Infrared A radiation influences the skin fibroblast transcriptome: mechanisms and consequences. Journal of Investigative Dermatology 2010;130:1524-1536
- Schroeder P, Lademann J, Darvin ME, Stege H, Marks C, Bruhnke S et al. Infrared radiation induced matrix metalloproteinase in human skin: implications for protection. J Invest Dermatol 2008;128:2491-7.
- Schroeder P, Pohl C, Calles C, Marks C, Wild S, Krutmann J. Cellular response to infrared radiation involves retrograde mitochondrial signaling. Free Radic Biol Med 2007;43:128-35.
- Jantschitsch C, Majewski S, Maeda A, Schwarz T, Schwarz A. Infrared radiation confers resistance to UV-induced apoptosis via reduction of DNA damage and upregulation of antiapoptotic proteins. J Invest Dermatol 2009;129:1271-9.
- Rai R, Srinivas CR. Photoprotection. Indian J Dermatol Venerol Leprol 2007;73:73-9.
- Yarosh DB, O'Connor A, Alas L, Potten C, Wolf P. Photoprotection by topical DNA repair enzymes: molecular correlates of clinical studies. Photochem Photobiol 1999;69:136-40.
- Pinnell SR, Yang H, Omar M, Riviere NM, DeBuys HV, Walker LC et al. Topical L-ascorbic acid: percutaneous absorption studies. Dermatol Surg 2001;27:137-142.
- Krutmann J, Schroeder P. Role of mitochondria in photoaging of human skin: the defective powerhouse model. J Invest Dermatol Symp Proc 2009;14:44-9.
- Roshchupkin DI, Pistov MY, Potapenko AY. Inhibition of ultraviolet light-induced erythema by antioxidants. Arch Dermatol Res 1979;266:91-94.
- Jurkiewicz BA, Bissett DL, Buettner GR. Effect of topically applied tocopherol on ultraviolet radiation-mediated free radical damage in skin. J Invest Dermatol 1995;104:484-488.
- Burke KE, Clive J, Combs GF, Jr., Comisso J, Keen CL, Nakamura RM. Effects of topical and oral vitamin E on pigmentation and skin cancer induced by ultraviolet irradiation in Skh:2 hairless mice. Nutr Cancer 2000;38:87-97.
- Yuen KS, Halliday GM. alpha-Tocopherol, an inhibitor of epidermal lipid peroxidation, prevents ultraviolet radiation from suppressing the skin immune system. Photochem Photobiol 1997;65:587-592.
- Katiyar SK, Korman NJ, Mukhtar H, Agarwal R. Protective effects of silymarin against photocarcinogenesis in a mouse skin model. J Natl Cancer Inst 1997;89:556-566.
- Elmets CA, Singh D, Tubesing K, Matsui M, Katiyar S, Mukhtar H. Cutaneous photoprotection from ultraviolet injury by green tea polyphenols. J Am Acad Dermatol 2001;44:425-432.
- Rockel N, Esser C, Grether-Beck S, Warskulat U, Flogel U, Schwarz A et al. The osmolyte taurine protects against ultraviolet B radiation-induced immunosuppression. J Immunol 15;2007;179:3604-12.
- Buenger J, Driller H. Ectoin: an effective natural substance to prevent UVA-induced premature photoaging. Skin Pharmacol Physiol 2004;17:232-7.

How to manage an Ingrown toe nail

Dr Shikha Bansal, MD, DNB & Dr Niti Khunger MD, DDV, DNB
 Department of Dermatology & STD
 VM Medical College & Safdarjang Hospital, New Delhi.

Introduction

Ingrown toe nail (onychocryptosis, unguis incarnatus) is a common condition that predominantly affects adolescents and young adults, though it can occur at any age. It is painful and affects the quality of life because it hampers walking. Several treatment options are available ranging from conservative medical approach to extensive surgical treatment options.

Why does it occur?

There are various pathogenesis of ingrown toe nail. The presence of a lateral projection of nail growing into the periungual soft tissue is a commonly believed etiology. Great toe nail is the commonest nail to be afflicted, though any nail can be involved. In adolescence, feet perspire more often, causing the skin and nails to become soft, resulting in easy splitting. This produces nail spicules that can pierce the lateral skin. In older persons, spicule formation can become a chronic problem caused by their reduced ability to care for their nails secondary to reduced mobility or impaired vision. In addition, the natural aging process causes toenails to thicken, making them more difficult to cut and more inclined to exert pressure on the lateral skin at the sides of the nail plate, often becoming ingrown, painful, and infected.¹ Particular nail shapes may be at greater risk of developing this problem.

Extrinsic compression on the great toe by footwear places constant pressure directly on the medial nail wall and indirectly on the lateral wall as the toe is pushed against the second toe. In the presence of a nail that is cut inappropriately short along the lateral portion, the nail fold is irritated or penetrated, which allows colonization of bacterial and fungal skin flora. Inflammatory changes, including edema, erythema, and pain, occur as an abscess forms. With the formation of hypertrophic granulation tissue, the toe is increasingly exposed to compression and irritation, creating a vicious cycle. Endogenous factors such as genetics and metabolic disorders are also possible.² There are three types 3, 4 of ingrown toe nails:

1. Subcutaneous ingrowing nail
2. Ingrowing nail due to lateral nail fold hypertrophy
3. Over curved nail compressing the surrounding soft tissue (pincer nail)

Staging of ingrown toe nail

Ingrowing toenails show three stages.

Stage 1: Early stage characterized by erythema, mild edema, and tenderness of the lateral nail fold.

Stage 2: Marked by increased symptoms, drainage, and infection.

Stage 3: All symptoms and signs are amplified, with formation of granulation tissue and lateral nail fold hypertrophy. (Table 1)

Table 1: Staging, Clinical Manifestations, and Recommended Treatment for Ingrowing Toenail ^{3,4}		
Stage	Clinical Manifestations	Recommended Treatment
I	Erythema, tenderness, swelling of the lateral nail fold	Conservative management: soaking the foot in warm water, topical or oral antibiotics, propenail-trimming, elevation of the corner of the nail.
II	Increased symptoms, seropurulent drainage, infection	Conservative or surgical management
III	Amplified symptoms, granulation tissue, marked fold hypertrophy	Surgical management

How to manage?

There are various methods to treat ingrown toe nail. The selection of technique depends on the stage and severity of the condition, expertise of the surgeon and the previous treatment of the patient, in cases of recurrence. Initial treatment of an ingrown toenail is conservative management, including avoiding tight-fitting shoes and using warm water baths and soft compresses⁵. Topical and systemic antibiotics are required if infection is present. Stage 1 can be managed by recommending proper footwear and treatment of underlying pathogenic factors such as hyperhidrosis, treatment of onychomycosis etc. Shoes should be comfortable with a wide toe box or open-toed. The patient should be instructed to cut the nail straight across and avoid cutting back the lateral margins in a curved manner. The nail edge should extend past the tissue of the lateral nail fold.

Local application of autologous platelet gel in surgical ingrown toenail wounds may produce a slight increase in acute inflammatory phase dermal wound healing⁶. If conservative treatment fails or if the condition is stage 2 or 3 or if it is recurrent, surgical management is the only option.

Checkpoints before surgical treatment

- Before proceeding for surgical treatment the following features should be checked. Check footwear because it may be cause
- Check foot and toe shape that may make the toe more prone to ingrown toenail.
- Check for onychomycosis
- Check that nail trimming is being carried out correctly
- Check the antiseptic or antibiotic treatment if chronic inflammation or infection is present

The best surgical approach is expected to have such features as applicable under local anesthesia, easy to perform, healing well with minimal postoperative morbidity, high success rate, cosmetically acceptable, without destruction of the matrix and cost effective.

Multiple surgical approaches to the correction of ingrown toenails have been suggested. Initially, the preferred treatment was simple nail avulsion alone; however, this approach has fallen out of favor given the high recurrence rates (about 70%)^{7, 8}. The lowest recurrence rate is reported for removing the nail with matricectomy because this reduces the width of the nail after healing.

Partial avulsion of the nail with lateral matricectomy is an established and successful method of treating ingrown toenails. Several methods of matricectomy have been established and can be divided into surgical and chemical types. Surgical methods aim to excise the lateral nail matrix edge completely. The advantage is that the completeness of matricectomy can be controlled by vision during the operation; disadvantages can be postoperative complications such as postoperative bleeding and the duration of the operation. Chemical methods use the tissue-destroying characteristics of chemicals such as phenol and sodium hydroxide to induce necrosis of the nail matrix edge instead of excising it after partial nail plate avulsion. Success rates of both techniques depend on the experience of the surgeon and therefore differ between less than 5% to 30%^{10, 11}. Chemical methods are easier to perform and have lower morbidity rates. Carbon dioxide (CO₂) laser has been utilized for selective matricectomy. The CO₂ laser achieves more selective destruction of the nail matrix than chemical matricectomy without masking the operative field. The disadvantage is the procedure is complex and technically difficult, in addition to requiring prolonged healing time and achieving a poor cosmetic outcome.¹²

Chemical matricectomy with partial nail avulsion is a safe and effective surgical therapeutic option for the treatment of ingrowing nails. Classically, phenol and sodium hydroxide have been used in this procedure. Phenol, also known as carbolic acid, is an effective protein denaturant. It cauterizes by producing a coagulation necrosis in the matrix. Phenol matricectomy has showed success rates greater than 95% for years.

Resident's Corner

In recent years, matricectomy with sodium hydroxide has been found to be as effective as phenol matricectomy, with shorter healing periods and a lower risk of local or systemic toxicity. The partial avulsion of the affected edge and the treatment of the germinal matrix for 1 minute with 10% sodium hydroxide preceded by matrix curettage is an effective and safe treatment modality for ingrown toenails in people with diabetes¹³ Kim et al¹⁴ alternatively used TCA matricectomy as a good alternative for the treatment of ingrown toe nail.

How to do it?

- The toe is surgically cleaned with povidone-iodine solution.
- A standard digital block is performed with 1 percent lignocaine (without adrenaline), using a 10-mL syringe and a 30-gauge needle. About 2 to 3 mL of lidocaine on each side of the toe is usually sufficient for adequate anesthesia. A wait of five to 10 minutes allows the block to become effective.
- A tourniquet using a cut portion of a sterile glove is rolled on and the time noted.
- A nail elevator or the closed tips of iris scissors are slid under the cuticle to separate the nail plate from the overlying proximal nail fold.
- The lateral one fourth of the nail plate is identified for partial lateral nail removal. This area is usually where the nail curves down into the toe. A nail splitter is used to cut from the distal free end of the nail straight back beneath the proximal nail fold. A straight, smooth, new lateral edge to the nail plate is created.
- The lateral piece of nail is grasped with a hemostat and removed.
- The lateral part of the matrix is then ablated using either 88% phenol or sodium hydroxide or by radiofrequency or electrocautery. In a comparative study both sodium hydroxide and phenol were effective agents, but sodium hydroxide caused less postoperative morbidity and provided faster recovery.
- If excessive lateral granulation tissue is noted, it is destroyed with radiosurgery ablation. A 5-mm ball electrode is moved back and forth over the lateral granulation tissue, coagulating with 40 to 50 W of current (setting, 4 to 5).
- Antibiotic ointment is applied; a bulky gauze dressing is placed. Systemic antibiotics are given for 7-10 days. Other alternative methods
- Surgical Treatment of Ingrown Toenail without Matricectomy¹⁶. In this method, a large volume of soft tissue surrounding the nail plate is excised, without performing a matricectomy. The results reported were excellent, with no recurrences at 12 months postoperative. The main advantage of this technique is the preservation of the anatomy and function of the nail with improved cosmetic results.
- Wiring¹⁷- in this technique an elastic wire is introduced at the lateral edges of the nail plate to flatten the nail plate and prevent it from embedding in the soft tissue. No recurrences were seen till 6 months of follow up.
- Tubing⁸-in this technique a flexible tube (IV tubing cut in half) is inserted underneath the lateral nail plate.
- Angle correction technique¹⁸- In this technique, the convexity of the nail plate is reduced by filing the whole surface of the nail, reducing the thickness by 50-75%.

Resident's Corner

Conclusion

Ingrown toe nail is a common painful condition afflicting mainly younger age group. Several treatment options are available both medical and surgical. The majority of studies conclude that partial matricectomy of the nail using chemical is an established and successful method of treating ingrown toenails. If performed with expertise the chances of recurrence are low and patient gets a long term relief from an otherwise painful condition.

References

1. Rounding C, Bloomfield S. Surgical treatments for ingrown toenails. *Cochrane Database Syst Rev* 2003; 1: CD001541
2. Langford DT, Burke C, Robertson K. Risk factors in onychocryptosis. *Br J Surg* 1989; 76:45-8.
3. Winograd AM. A modification in the technique of operation for ingrown toe-nail. 1929. *J Am Podiatr Med Assoc* 2007; 97:274-7.
4. Zuber TJ, Pfenninger JL. Management of ingrown toenails. *Am Fam Physician* 1995; 52:181-90.
5. Zuber TJ. Ingrown toenail removal. *Am Fam Physician*. 2002; 65:2547
6. Córdoba-Fernández A, Rayo-Rosado R, Juárez-Jiménez JM. *J Foot Ankle Surg*. 2010 Jul-Aug;49(4):385-9.
7. Palmer BV, Jones A. In growing toenails: the results of treatment. *Br J Surg*. 1979; 66:575.
8. Gupta S, Sahoo B, Kumar B. Treating ingrown toenails by nail splinting with a flexible tube: an Indian experience. *J Dermatol*. 2001; 28:485.
9. Peybandi H, Robati M., Yegane et al. Comparison of Two Surgical Methods (Wino grad and Sleeve Method) in the Treatment of Ingrown toenail. *Dermatologic Surgery* 2011; 37: 331-335
10. Bostanci S, Kocycit P, Gürgey E. Comparison of phenol and sodium hydroxide chemical matricectomies for the treatment of ingrown toenails. *Dermatol Surg* 2007; 33:680-3.
11. Gerritsma-Bleeker CLE, Klaase JM, Geelkerken RH, et al. Partial matrix excision or segmental phenolization for ingrown toenails. *Arch Surg* 2002; 137:320-5.
12. Serour F. Recurrent ingrown big toenails are efficiently treated by CO2 laser. *Dermatol Surg* 2002; 28:509-12.
13. Tatlican S, Eren C, Yamangokturk B et al. Chemical matricectomy with 10% sodium hydroxide for the treatment of ingrown toenails in people with diabetes.
14. *Dermatol Surg*. 2010 Feb; 36(2):219-22.
15. Kim S, Chang H, Keun C. Trichloroacetic Acid Matricectomy in the Treatment of In growing Toenails. *Dermatologic Surgery* 2009; 35: 973-979
16. Noel B. Surgical Treatment of Ingrown Toenail without Matricectomy *Dermatol Surg* 2008;34:79-83
17. Moriue T, Yoneda K, Moriue J et al. A Simple Therapeutic Strategy with Super Elastic Wire for Ingrown Toenails. *Dermatol Surg* 2008;34:1729-1732.
18. Ozdil B and Eray IC. New Method Alternative to Surgery for Ingrown Nail: Angle Correction Technique. *Dermatol Surg* 2009;35:990-992.

Updation of ACS (I) Directory

All members are requested to email their updated contact details to Lt Col Dr Manas Chatterjee, Secretary (ltcolchatterjee@gmail.com; drmanaschatterjee@gmail.com) in Excel sheet by 30 June 2011 in the following format for ease and accuracy of compilation to ensure delivery of JCAS, Association news and rapid communication with members:

Name:	ACSI membership number:	Email id (mandatory, please create one if not available):	Mobile number:	Landline number (Office):	Landline number (Residence):	Fax number (if available):	Mailing Address:	Permanent Address:

REGISTRATION IN WEBSITE

All members are also requested to register on the ACS(I) website www.acsinet.net using their membership number on the Members' Registration link. Please do not use the 'Forgot Password' link which is to be used if a password issued from the Secretary has been lost/forgotten.

Registration is required to access the 'Members Only' portion of the website, which is a members' only privilege

Lt Col Manas Chatterjee

General Secretary

ACS (I) Calender of Events

- VITILICON 2011: Global Conference on Vitiligo, Eagleton Resort, Bangalore, 22 – 24 Apr 2011**
- 10th Annual Congress of the Association of Cutaneous Surgeons (I), Kaziranga, Assam 25 - 27 Nov 2011,**
Organising Secretary: Dr Shyamanta Barua, Email: drshyamanta@gmail.com
- Joint Conference of Association of Cutaneous Surgeons (I) along with the spring meeting of International Society for Dermatologic Surgery (ISDS), New Delhi March 2012**
- National Conference of Association of Cutaneous Surgeons (I), Bangalore Nov 2012.**
Organizing chairman- Dr Venkataram Mysore, org. Secretary- Dr Raghunatha Reddy R, Scientific chairman – Dr S Sacchidanand
- National Conference of the Association of Cutaneous Surgeons (I) at Hyderabad Nov 2013.**
Organising Secretary: Dr Sanjeev Aurangabadkar
- Aesthetiques 2011, New Delhi Sep 2011 in association with plastic surgery association New delhi
- Acne surgery CME at Hyderabad May-2011, IADVL- AP Branch
- Sister Society meeting, at the World congress of cosmetic dermatology Cancun, Mexico 1-4 Feb 2012

Procedure of Application for Membership of Association Of Cutaneous Surgeons (I)

Please collect the membership form or go to <http://www.acsinet.net/membership.html> and download the membership form and fwd to the address mentioned below with a DD of Rs 4000/- payable at Pune in favour of 'Association of Cutaneous Surgeons of India.'

A photograph and proof of qualification would be required to be attached (PG degree and Registration of qualification).

Life membership is open to Dermatologists with a MCI recognised qualification.

Those who possess any other qualification in Dermatology from foreign universities, and those not recognised by MCI will be eligible for associate membership only and subject to approval of membership committee. The fee for associate members will be Rs 8,000 or US \$200.

Specialists with a surgical PG qualification other than Dermatology (Plastic surgeons and others) may also be considered for Associate membership at the said fees once approved by membership committee. Associate members do not have voting rights and are not eligible for holding any appointment in the Association.

Postgraduate students in Dermatology will be registered as provisional life members on payment of Rs 1000/-. On passing the qualifying examination and furnishing of proof thereof, they will pay the balance amount of Rs 3000/- and become life members. Provisional life membership is valid for a period of five years only, during which time, they will have to be converted to life membership.

It is for the information of all that membership rates are being revised upwards from the Kaziranga conference (Nov 2011) onwards and hence, the earlier the better.

Secretary:

Lt Col Dr Manas Chatterjee, MD, DNB (Derm and STD),

Classified Specialist (Derm and STD) and Associate Professor, AFMC,

Command Hospital (Southern Command),

Pune – 411040.

Phone: 0091 9823686830 (Mob)

0091 20 26332337 (Resi)

0091 20 26026109 (Office)

Email: drmanaschatterjee@gmail.com; info@acsinet.net; secretary@acsinet.net

JOIN ACSI AND AVAIL BENEFITS

- Discounted delegate fees at above events.
- Free subscription to JCAS and ASCIPEN, the official newsletter.
- Opportunities for fellowships, certificate courses and exchange fellowships with international organizations.
- Discounted rates for proposed ACSI Textbook on Dermatotomy.
- Opportunities to serve as office bearer at state and National level.
- Opportunities to organize local / focus/ regional events.