

# Indian Journal of Dermatology, Venereology & Leprology

Journal indexed with SCI-E, PubMed, and EMBASE

Vol 74 | Issue 2 | Mar-Apr 2008

C O N T E N T S

## EDITORIAL

### Management of autoimmune urticaria

Arun C. Inamadar, Aparna Palit ..... 89

## VIEW POINT

### Cosmetic dermatology versus cosmetology: A misnomer in need of urgent correction

Shyam B. Verma, Zoe D. Draelos ..... 92

## REVIEW ARTICLE

### Psoriasiform dermatoses

Virendra N. Sehgal, Sunil Dogra, Govind Srivastava, Ashok K. Aggarwal ..... 94



## ORIGINAL ARTICLES

### A study of allergen-specific IgE antibodies in Indian patients of atopic dermatitis

V. K. Somani ..... 100

### Chronic idiopathic urticaria: Comparison of clinical features with positive autologous serum skin test

George Mamatha, C. Balachandran, Prabhu Smitha ..... 105



### Autologous serum therapy in chronic urticaria: Old wine in a new bottle

A. K. Bajaj, Abir Saraswat, Amitabh Upadhyay, Rajetha Damisetty, Sandipan Dhar ..... 109

### Use of patch testing for identifying allergen causing chronic urticaria

Ashimav Deb Sharma ..... 114

### Vitiligoid lichen sclerosis: A reappraisal

Venkat Ratnam Attali, Sasi Kiran Attali ..... 118



**BRIEF REPORTS**

**Activated charcoal and baking soda to reduce odor associated with extensive blistering disorders**

Arun Chakravarthi, C. R. Srinivas, Anil C. Mathew ..... 122



**Nevus of Ota: A series of 15 cases**

Shanmuga Sekar, Maria Kuruvila, Harsha S. Pai ..... 125



**Premature ovarian failure due to cyclophosphamide: A report of four cases in dermatology practice**

Vikrant A. Saoji ..... 128

**CASE REPORTS**

**Hand, foot and mouth disease in Nagpur**

Vikrant A. Saoji ..... 133



**Non-familial multiple keratoacanthomas in a 70 year-old long-term non-progressor HIV-seropositive man**

Hemanta Kumar Kar, Sunil T. Sabhnani, R. K. Gautam, P. K. Sharma, Kalpana Solanki, Meenakshi Bhardwaj ..... 136



**Late onset isotretinoin resistant acne conglobata in a patient with acromegaly**

Kapil Jain, V. K. Jain, Kamal Aggarwal, Anu Bansal ..... 139



**Familial dyskeratotic comedones**

M. Sendhil Kumaran, Divya Appachu, Elizabeth Jayaseelan ..... 142



**Nasal NK/T cell lymphoma presenting as a lethal midline granuloma**

Vandana Mehta, C. Balachandran, Sudha Bhat, V. Geetha, Donald Fernandes .....



145

**Childhood sclerodermatomyositis with generalized morphea**

Girishkumar R. Ambade, Rachita S. Dhurat, Nitin Lade, Hemangi R. Jerajani.....



148

**Subcutaneous panniculitis-like T-cell cutaneous lymphoma**

Avninder Singh, Joginder Kumar, Sujala Kapur, V. Ramesh.....



151

**LETTERS TO EDITOR**

**Using a submersible pump to clean large areas of the body with antiseptics**

C. R. Srinivas .....



154

**Peutz-Jeghers syndrome with prominent palmoplantar pigmentation**

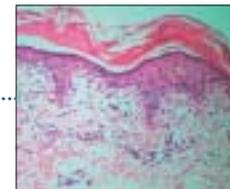
K. N. Shivaswamy, A. L. Shyamprasad, T. K. Sumathi, C. Ranganathan .....



154

**Stratum corneum findings as clues to histological diagnosis of pityriasis lichenoides chronica**

Rajiv Joshi .....



156

**Author's reply**

S. Pradeep Nair .....

157

**Omalizumab in severe chronic urticaria**

K. V. Godse.....

157

**Hypothesis: The potential utility of topical eflornithine against cutaneous leishmaniasis**

M. R. Namazi .....

158

**Nodular melanoma in a skin graft site scar**

A. Gnaneshwar Rao, Kamal K. Jhamnani, Chandana Konda .....



159

**Palatal involvement in lepromatous leprosy**

A. Gnaneshwar Rao, Chandana Konda, Kamal Jhamnani..... 161



**Unilateral nevoid telangiectasia with no estrogen and progesterone receptors in a pediatric patient**

F. Sule Afsar, Ragip Ortac, Gulden Diniz ..... 163



**Eruptive lichen planus in a child with celiac disease**

Dipankar De, Amrinder J. Kanwar..... 164



**Xerosis and pityriasis alba-like changes associated with zonisamide**

Feroze Kaliyadan, Jayasree Manoj, S. Venkitakrishnan..... 165

**Treatment of actinomycetoma with combination of rifampicin and co-trimoxazole**

Rajiv Joshi ..... 166



**Author's reply**

M. Ramam, Radhakrishna Bhat, Taru Garg, Vinod K. Sharma, R. Ray, M. K. Singh, U. Banerjee, C. Rajendran ..... 168

**Vitiligo, psoriasis and imiquimod: Fitting all into the same pathway**

Bell Raj Eapen ..... 169

**Author's reply**

Engin Şenel, Deniz Seçkin ..... 169

**Multiple dermatofibromas on face treated with carbon dioxide laser: The importance of laser parameters**

Kabir Sardana, Vijay K. Garg ..... 170

**Author's reply**

D. S. Krupa Shankar, A. Kushalappa, K. S. Uma, Anjay A. Pai..... 170

**Alopecia areata progressing to totalis/universalis in non-insulin dependent diabetes mellitus (type II): Failure of dexamethasone-cyclophosphamide pulse therapy**

Virendra N. Sehgal, Sambit N. Bhattacharya, Sonal Sharma, Govind Srivastava, Ashok K. Aggarwal ..... 171



**Subungual exostosis**

Kamal Aggarwal, Sanjeev Gupta, Vijay Kumar Jain, Amit Mital, Sunita Gupta..... 173

**Clinicohistopathological correlation of leprosy**

Amrish N. Pandya, Hemali J. Tailor ..... 174

**RESIDENT'S PAGE**

**Dermatographism**

Dipti Bhute, Bhavana Doshi, Sushil Pande, Sunanda Mahajan, Vidya Kharkar ..... 177

**FOCUS**

**Mycophenolate mofetil**

Amar Surjushe, D. G. Saple ..... 180

**QUIZ**

**Multiple papules on the vulva**

G. Raghu Rama Rao, R. Radha Rani, A. Amareswar, P. V. Krishnam  
Raju, P. Raja Kumari, Y. Hari Kishan Kumar ..... 185



**E-IDVL**

**Net Study**

**Oral isotretinoin is as effective as a combination of oral isotretinoin and topical anti-acne agents in nodulocystic acne**

Rajeev Dhir, Neetu P. Gehi, Reetu Agarwal, Yuvraj E. More ..... 187

**Net Case**

**Cutaneous diphtheria masquerading as a sexually transmitted disease**

T. P. Vetrichevvel, Gajanan A. Pise, Kishan Kumar Agrawal,  
Devinder Mohan Thappa ..... 187



**Net Letters**

**Patch test in Behcet's disease**

Ülker Gül, Müzeyyen Gönül, Seray Külcü Çakmak, Arzu Kılıç ..... 187

**Cerebriform elephantiasis of the vulva following tuberculous lymphadenitis**

Surajit Nayak, Basanti Acharjya, Basanti Devi, Satyadarshi Pattnaik,  
Manoj Kumar Patra ..... 188



**Net Quiz**

**Vesicles on the tongue**

Saurabh Agarwal, Krishna Gopal, Binay Kumar ..... 188



## Vitiligoid lichen sclerosis: A reappraisal

Venkat Ratnam Attili, Sasi Kiran Attili<sup>1</sup>

Consultant Dermatologist, Visakha Institute of Skin and Allergy, Visakhapatnam, Andhra Pradesh, India, <sup>1</sup>Department of Dermatology, Ninewells University Hospital and Medical School, Dundee, UK

**Address for correspondence:** Dr. Venkat Ratnam Attili, Visakha Institute of Skin and Allergy, Marripalem, Visakhapatnam - 530 018, Andhra Pradesh, India. E-mail: vrattili@hotmail.com

---

### ABSTRACT

**Background:** Many case studies of lichen sclerosis (LS) have reported an association of vitiligo. However, such an association is not reported from larger case studies of vitiligo, which happens to be a common disease. Autoimmune etiology suspected in both LS and vitiligo has been considered as the reason for their association in some patients. It has also been suggested that lichenoid inflammation in LS may trigger an autoimmune reaction against melanocytes. **Aims:** To test this association, we reviewed clinical and histological features of 266 cases of vitiligo and 74 cases of LS in a concurrent study of both diseases. **Methods:** All outpatients seen in our department between 2003 and 2006 and who were diagnosed as having LS or vitiligo on the basis of clinical and pathologic features were included in the study. **Results:** Vitiligoid lesions were seen along with stereotypical LS lesions in three patients but all the three lesions had histological features of LS. Oral/genital areas were affected in 57 out of the 74 LS cases and of those, 15 were initially suspected to have vitiligo. These cases with a clinical appearance of vitiligo and histological features of LS were considered as 'vitiligoid LS', a superficial variant proposed by J. M. Borda in 1968. Association of LS was not observed in the 266 cases of vitiligo. **Conclusion:** Exclusive oral/genital depigmentation is a common problem and histological evaluation is essential to differentiate vitiligoid LS from true vitiligo. The association of vitiligo with LS may have been documented due to the clinical misdiagnosis of vitiligoid LS lesions as vitiligo as histological investigations were not undertaken in any of the reported cases.

**Key Words:** Extragenital, Lichen sclerosis, Lichenoid, Melanocyte, Orogenital, Vitiligo

### INTRODUCTION

Wallace reviewed 380 cases of LS and reported the association of plaque morphea as being significant and that of vitiligo as being probably significant.<sup>[1]</sup> While major opinion now favors LS as a superficial form of morphea because coexistence in the same patient and co-localization of the two within the same lesion has been reported,<sup>[2-4]</sup> probable reasons for the association of LS and vitiligo have not been explored. However, such an association is not inconceivable,<sup>[5-7]</sup> since autoimmune mechanisms have been suspected in the etiology of the two diseases. Pigment loss in LS is also a common observation and lichenoid inflammatory changes are proposed as an explanation by way of decreased melanin production or melanocyte destruction. These inflammatory changes triggering an autoimmune reaction to melanocytes have also been suggested as the common pathogenic

connection that underlies the documented association of LS with vitiligo.<sup>[8]</sup> Interestingly, while association of vitiligo has been reported from case studies of LS, such an association is not reported from larger case studies of vitiligo which happens to be a much more common disease.<sup>[9-13]</sup> The issue also becomes contentious since Borda proposed 'Vitiligoid LS' as a superficial variant<sup>[14]</sup> in which the clinical appearance is that of vitiligo and diagnosis primarily depends on histological features. The purpose of this study was to investigate the true association of LS and vitiligo in a large series of patients.

### METHODS

We have been studying vitiligo and vitiligoid lesions concurrently at our institute for 4 years, beginning from 2003. A total number of 266 new cases of vitiligo and 74 new cases

**How to cite this article:** Attili VR, Attili SK. Vitiligoid lichen sclerosis: A reappraisal. Indian J Dermatol Venereol Leprol 2008;74:118-21.

**Received:** August, 2007. **Accepted:** November, 2007. **Source of Support:** Nil. **Conflict of Interest:** Nil.

of LS were seen by the end of 2006. In all cases, biopsies were routinely taken and histological features were correlated with the clinical features. LS was diagnosed and classified based on histopathological features as early evolving, fully developed and late lesions.<sup>[15]</sup> Vitiligo was diagnosed after histological exclusion of postinflammatory depigmentation due to other diseases. Wherever coexistence of the two diseases was suspected, biopsies were taken from representative areas of both the lesions. Hematoxylin- and eosin-stained multiple sections were examined. Special stains were not considered essential for diagnosis<sup>[1]</sup> and as such were not employed.

## RESULTS

Of the 74 LS cases, nongenital skin was exclusively involved in 17 and oral/genital involvement was seen in 57. In the latter group, a good correlation between clinical and histological features was seen in 42 cases.

*Vitiligoid LS:* The remaining 15 cases were diagnosed as vitiligoid LS as these were clinically suspected to be vitiligo

and the diagnosis of LS was made only after histological review. Lesions were considered as 'early evolving' in ten, 'fully developed' in three and two were 'late resolved' lesions [Figures 1-4]. Exclusive oral involvement (essentially limited to lips) was seen in six patients, genital involvement in six and both oral and genital involvement was seen in three patients. In the last group, similar clinical and histopathological features were observed in both areas.

Among 74 LS cases, three had vitiligoid patches in association with genital LS lesions. Histological features in all the three vitiligoid lesions were indicative of LS. One of these patients had several vitiligoid patches along with a typical LS plaque lesion in the groin which also had a large spreading vitiligoid margin. A biopsy from this marginal area revealed diffuse lichenoid interface dermatitis consistent with a diagnosis of early LS [Figure 2].

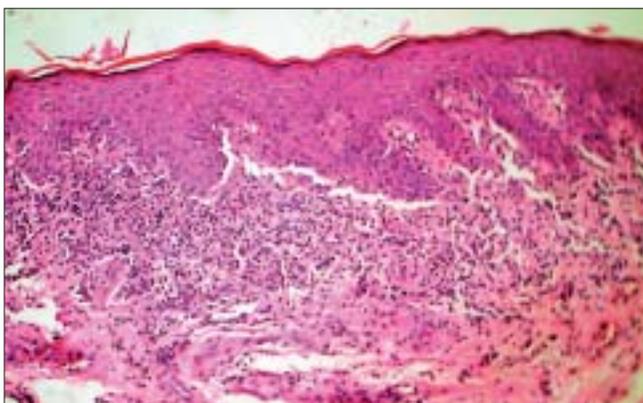
Clinical and histological review of 266 vitiligo cases did not reveal association with LS. Fifteen had exclusive orogenital involvement which did not show interface dermatitis or



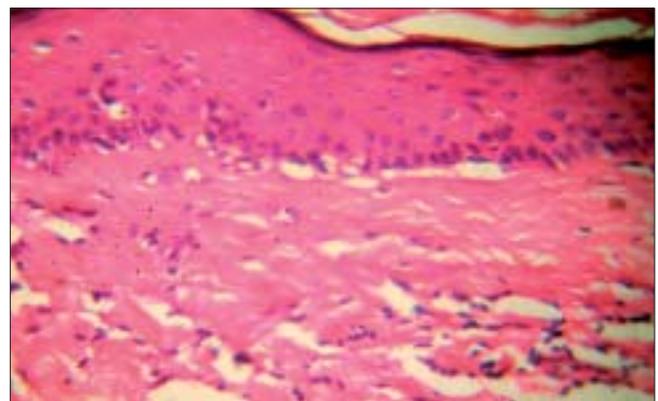
**Figure 1: Evolving genital lichen sclerosis with vitiligoid appearance and lichenoid interface dermatitis on biopsy as shown in Figure 2**



**Figure 3: Late vitiligoid lichen sclerosis lesion with spreading vitiligoid margins and papillary dermal sclerosis as shown in Figure 4**



**Figure 2: Vitiligoid lichen sclerosis with a diffuse band of cellular infiltrate at the interface along with vacuolar changes (H and E stain, x 150)**



**Figure 4: Vitiligoid lichen sclerosis - Late lesion with papillary dermal sclerosis (H and E stain, x 400)**

papillary dermal sclerosis as seen in the vitiligoid LS cases.

## DISCUSSION

Male dominance of LS was observed in this study of a selection of cases from a dermatology clinic while other studies have shown female preponderance. Clinical profiles of patients with stereotypical LS and vitiligoid LS were similar [Table 1] with the exception that vitiligoid LS lesions were far less symptomatic and of shorter duration. Early genital lesions of LS were more often associated with intense pruritus and erosions while late resolved lesions were associated with either atrophy or induration. Along with such textural changes, pigment loss in LS lesions was also a frequent observation. In contrast, pigment loss was the presenting complaint in vitiligoid LS with no significant textural changes or pruritus, which therefore mimicked common vitiligo. However, histopathological differentiation was not difficult. Pathognomonic papillary sclerosis was seen in late lesions and interface dermatitis of lichenoid or vacuolar type was seen in early cases [Figures 2 and 4].

Interestingly, spreading vitiligoid margins were also seen in typical LS lesions and thus depigmentation appears to be an early manifestation. Pigment loss was

a prominent feature in both early and late resolved lesions of vitiligoid LS in this study, which suggests that the associated degenerative changes make pigment loss irreversible. Progressive stereotypic genital LS lesions are characterized by increasing papillary sclerosis, which may extend to involve the upper reticular layer as well with a band of inflammatory cells beneath the sclerotic layer. In comparison, the characteristic histological changes in all cases of vitiligoid LS were strictly limited to the papillary layer confirming Borda's assertion that it is a superficial variant. Although this entity was proposed in 1968, as far as we are aware, this is the only study that reiterates the importance of 'vitiligoid LS of Borda' as a common problem in orogenital areas. Review of dermatological literature suggests that exclusive oral LS cases are rare whereas several have been reported by orofacial surgeons.<sup>16-22</sup> Exclusive orogenital lesions are also seen in vitiligo and it is possible that dermatologists, in the absence of histopathological review, favor a clinical diagnosis of vitiligo which is more common. On the flip side, it is also possible that the documented association of vitiligo with LS may have been due to clinical misdiagnosis of vitiligoid LS as none had taken biopsies from vitiligoid lesions. Such association did not stand the scrutiny of histopathological review in this study. Awareness that vitiligoid lesions

**Table 1: Comparative features of stereotypical LS and vitiligoid LS - Orogenital lesions**

	LS (n = 42)	Vitiligoid LS (n = 15)
<b>Clinical features</b>		
Males/females	25/17	11/4
Mean age (years)	35	35
Age range	2-74	1-70
Mean duration of disease (months)	26	18
<b>Involvement</b>		
Oral	4	6
Genital	33	6
Oro-genital	5	3
Pruritus/burning sensation	21 (50)	5 (33)
Erosions/inflammation	13 (31)	0
Atrophy	13 (31)	0
Thickening/induration	16 (38)	0
Loss of pigment	32 (72)	15 (100)
<b>Histological features</b>		
<b>Predominant inflammatory changes</b>		
Interface dermatitis-Vacuolar	15 (36)	9 (60)
Interface dermatitis-Lichenoid	10 (24)	6 (40)
Stereotypical band of inflammatory cells below the sclerotic papillary dermis	9 (21)	0
No significant cellular infiltration	8 (19)	0
<b>Dermal sclerosis</b>		
Papillary	33 (73)	11(73)
Papillary and Reticular	9 (21)	0

Figures in parentheses are in percentage

may coexist with stereotypical lesions of LS and exclusive orogenital presentation of vitiligoid LS is essential for proper management.

## REFERENCES

- Wallace HJ. Lichen sclerosis and atrophicus. *Trans St Johns Hosp Dermatol Soc* 1971;57:9-30.
- Meffert JJ, Davis BM, Grimwood RE. Continuing medical education: Lichen sclerosis. *J Am Acad Dermatol* 1995;32:393-416.
- Sehgal VN, Srivatsava G, Aggarwal AK, Behl PN, Choudhary M, Bajaj P. Localised scleroderma/Morphea. *Int J Dermatol* 2002;41:467-75.
- Peterson LS, Nelson AM, Daniel Su WP. Classification of Morphea (Localized Scleroderma). *Mayo Clin Proc* 1995;70:1068-76.
- Meyrick Thomas RH, Ridley CM, Black MM. The association of lichen sclerosis et atrophicus and autoimmune-related disease in males. *Br J Dermatol* 1983;109:661-4.
- Harrington CI, Dunmore IR. An investigation into the incidence of auto-immune disorders in patients with lichen sclerosis and atrophicus. *Br J Dermatol* 1981;104:653-6.
- Meyrick Thomas RH, Ridley CM, McGibbon DH, Black MM. Lichen sclerosis et atrophicus and autoimmunity: A study of 350 women. *Br J Dermatol* 1988;118:41-6.
- Carlson JA, Grabowski R, Mu XC, Del Rosario A, Malfetano J, Slominski A. Possible mechanisms of hypopigmentation in lichen sclerosis. *Am J Dermatopathol* 2002;24:97-107.
- Sehgal VN. A clinical evaluation of 202 cases of Vitiligo. *Cutis* 1974;14:439-45.
- Dutta AK, Mandal SB. A clinical study of 650 cases of Vitiligo and their classification. *Indian J Dermatol* 1969;14:103.
- Behl PN, Bhatia RK. 400 cases of Vitiligo: A clinico-therapeutic analysis. *Indian J Dermatol* 1972;17:51.
- Vinay S, Kalpana S, Sangeetha A. Vitiligo: A monograph and color atlas. 1<sup>st</sup> ed. Fulford: Mumbai; 2000.
- Sehgal VN, Srivatsava G. Vitiligo: Compendium of clinico-epidemiological features. *Indian J Dermatol Venereol Leprol* 2007;73:149-56.
- Borda JM, Abulafia J, Jaimovich L. Syndrome of circumscribed sclero-atrophies. *Derm Ibero Lat Am* 1968;3:179-202.
- Ackermann AB, Boer A, Bennin B, et al. Related net content on LSA. In: *Histologic diagnosis of inflammatory skin diseases*. Ardor Scribendi Ltd: New York; 2005.
- Macleod RI, Soames JV. Lichen sclerosis et atrophicus of the oral mucosa. *Br J Oral Maxillofac Surg* 1991;29:64-5.
- Siar CH, Ng KH. Oral lichen sclerosis et atrophicus. *J Oral Med* 1985;40:148-50.
- de Araújo VC, Orsini SC, Marcucci G, de Araújo NS. Lichen sclerosis et atrophicus. *Oral Surg Oral Med Oral Pathol* 1985;60:655-7.
- Buajeeb W, Kraivaphan P, Punyasingh J, Laohapand P. Oral lichen sclerosis et atrophicus: A case report. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1999;88:702-6.
- Schulten EA, Starink TM, van der Waal I. Lichen sclerosis et atrophicus involving the oral mucosa: Report of two cases. *J Oral Pathol Med* 1993;22:374-7.
- Jensen T, Worsaae N, Melgaard B. Oral lichen sclerosis et atrophicus: A case report. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2002;94:702-6.
- Mendonca EF, Ribeiro-Rotta RF, Silva MA, Batista AC. Lichen sclerosis et atrophicus of the oral mucosa. *J Oral Pathol Med* 2004;33:637-40.