

GRINSPAN'S SYNDROME

A Review and a Case Report.

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ABSTRACT:

Lichen Planus has been reported to be associated with several disorders. A rare and interesting association between oral erosive lichen planus, diabetes mellitus and vascular hypertension has been described, the triad is referred to as 'Grinspan's Syndrome'. This report presents a case with the symptomatic triad fulfilling the diagnostic criteria of Grinspan's Syndrome.

Key Words: "Grinspan's Syndrome".

INTRODUCTION:

Grinspan in 1963 reported 23 patients having oral erosive lichen planus, associated with diabetes mellitus and found seven of them had hypertension. This triad was subsequently referred to as "Grinspan's Syndrome" by Grupper and Avul in 1965⁽¹⁾. Further researches conducted by others (Jolly, Powell, Howell and Rick) confirmed the existence of this symptomatological triad.⁽¹⁾

This paper presents a case of an extensive mucocutaneous lichen planus associated with diabetes mellitus and hypertension.

CASE REPORT:

45 year old lady was referred by a general practitioner with complaints of pruritic pigmented lesions all over the body, severe burning sensation of the oral cavity and pain upon swallowing for the past 2 years, with gradual increase in the severity of the symptoms.

Her medical history revealed maturity onset

diabetes mellitus diagnosed 2 and 1/2 years back, under medication with Tab. Glibenclamide (daonil) – 5 mg daily. The medical history further revealed that the patient was diagnosed to be hypertensive few months back, but antihypertensive drug therapy had not been started. However, general measures like diet control and yoga had been instituted.

On careful questioning, the patient revealed severe itching in the vulva and burning micturition; for which patient received antifungal therapy (miconazole cream) with little subsequent benefit.

On examination, the patient generally appeared fit. Presence of numerous blackish – brown pigmented plaques of varying size and shape were noted all over the body, but concentrated more on the abdomen, chest, back, flexor surfaces of forearm and wrist, with bilaterally symmetrical pattern of distribution (Fig 1). There were a few reddish, small, angular, flat topped papules covered by glistening scales with a violaceous hue as evident in the photograph (Fig.II). The Face and exposed parts of the body were relatively spared. Pigmentation of the palms and soles was present (Fig. IV) with severe vertical grooving and blackish pigmentation of the nails. (Pterygium formation).⁽²⁾ (Fig.II and III).

Intraoral examination revealed pigmentation of the lips. There were numerous eroded, frankly ulcerated lesions all over the oral mucosa, but seen more on the tongue, buccal mucosa and gingiva. Radiating striae were evident on the periphery of these lesions which were hemorrhagic and extremely painful even on slight touch. (Fig V and VI). Whitish lacy reticular patches and streaks were seen over the dorsal surface of the tongue. A few vesicles were noted on the cheek. Areas of well circumscribed elevated white lesions resembling focal keratosis were present on the labial and buccal mucosa. (Fig.VI)

Examination also revealed the involvement of the pharyngeal mucosa, epiglottis and vagina.

The investigations undertaken included incisional biopsy of the buccal mucosa, abdominal skin and routine haematology. Hematological values were normal. Histological examination of the lesion confirmed the diagnosis of Lichen planus. The section showed orthokeratosis and "Saw-tooth" pattern of epidermal hyperplasia. In the superficial dermis there is a dense, band like infiltration of lymphocytes with marked pigment incontinence and prominent granular cell layer (Fig. VII & IX).

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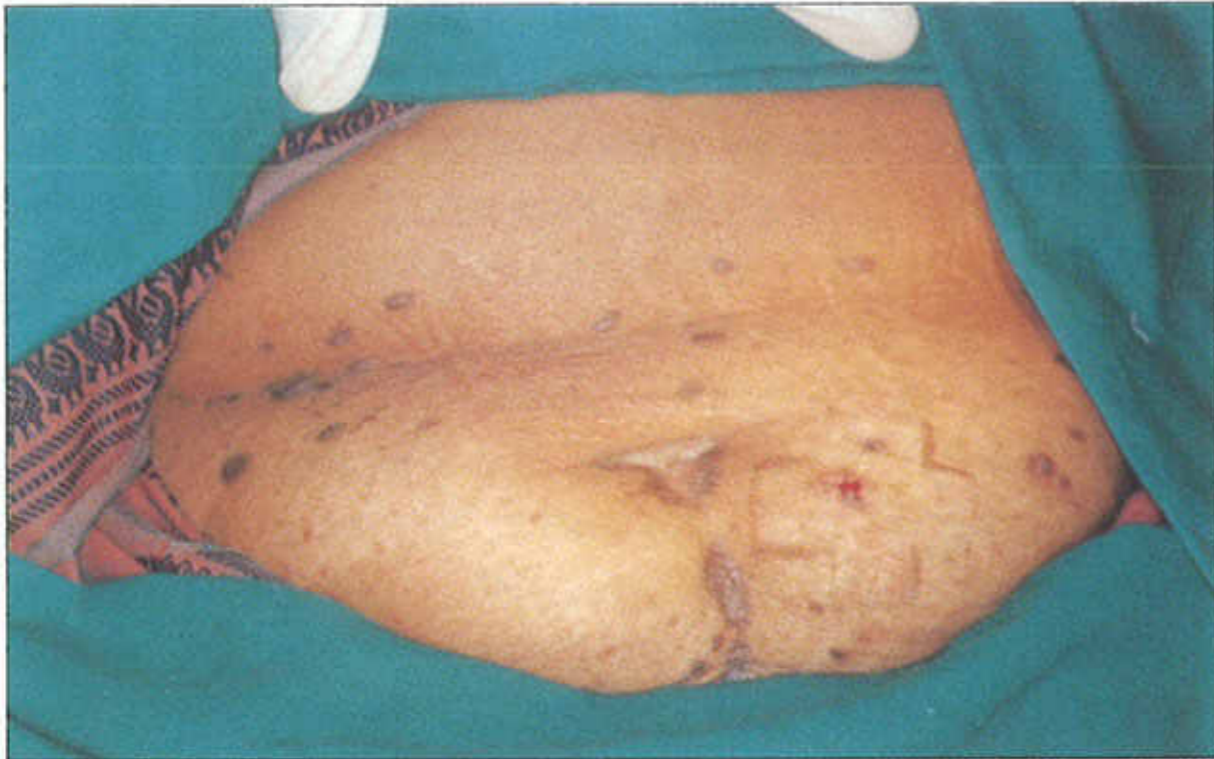


FIG I : Pigmentations and papules on the abdomen.



FIG II : Photograph showing papules covered by glistening scale and pterygium formation of the toe nail.



FIG III : Photograph showing pterygium formation. Finger nail changes.



FIG IV : Pigmentation of the palm



FIG V : Photograph showing pigmentation of the lips and lesions on the tongue.



FIG VI : Lesions on the buccal mucosa



FIG VII : Pigmentation of the palate

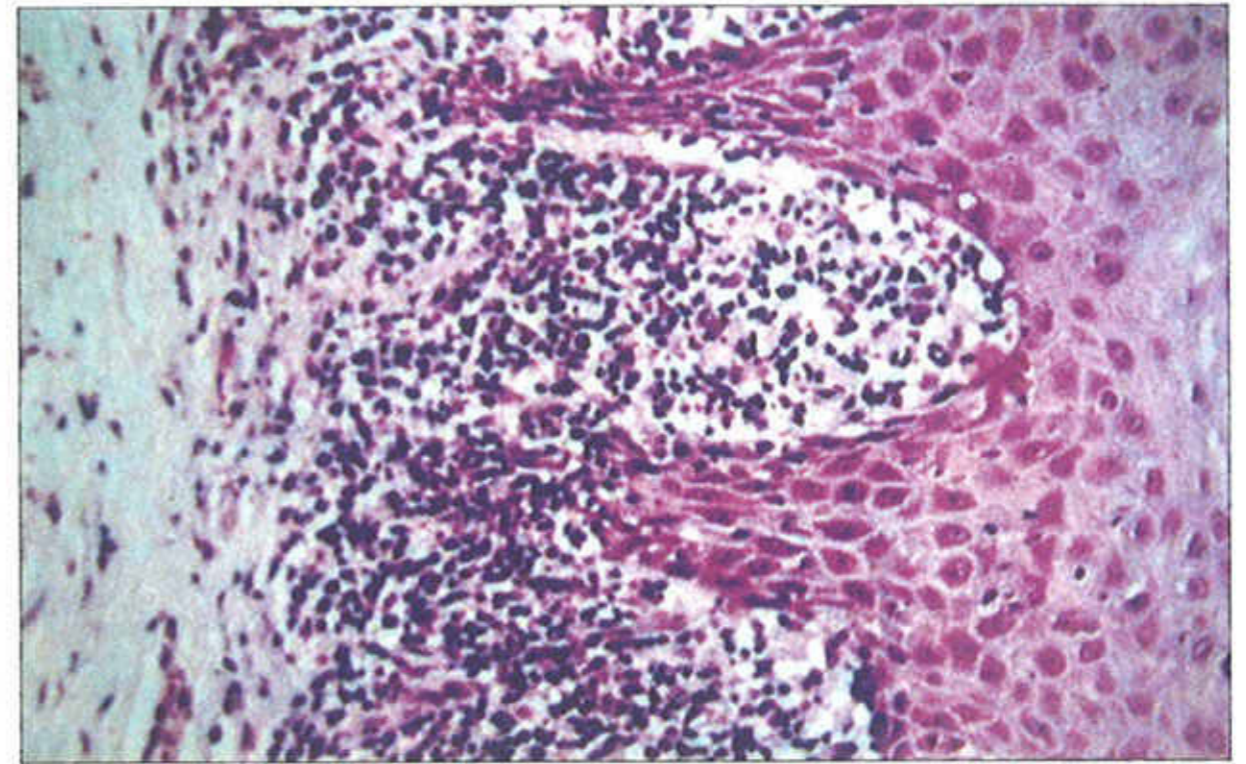


FIG VIII : Photograph showing saw tooth profile of the rete ridges associated with a well defined band like, lymphocytic infiltration. (H & EX 100).

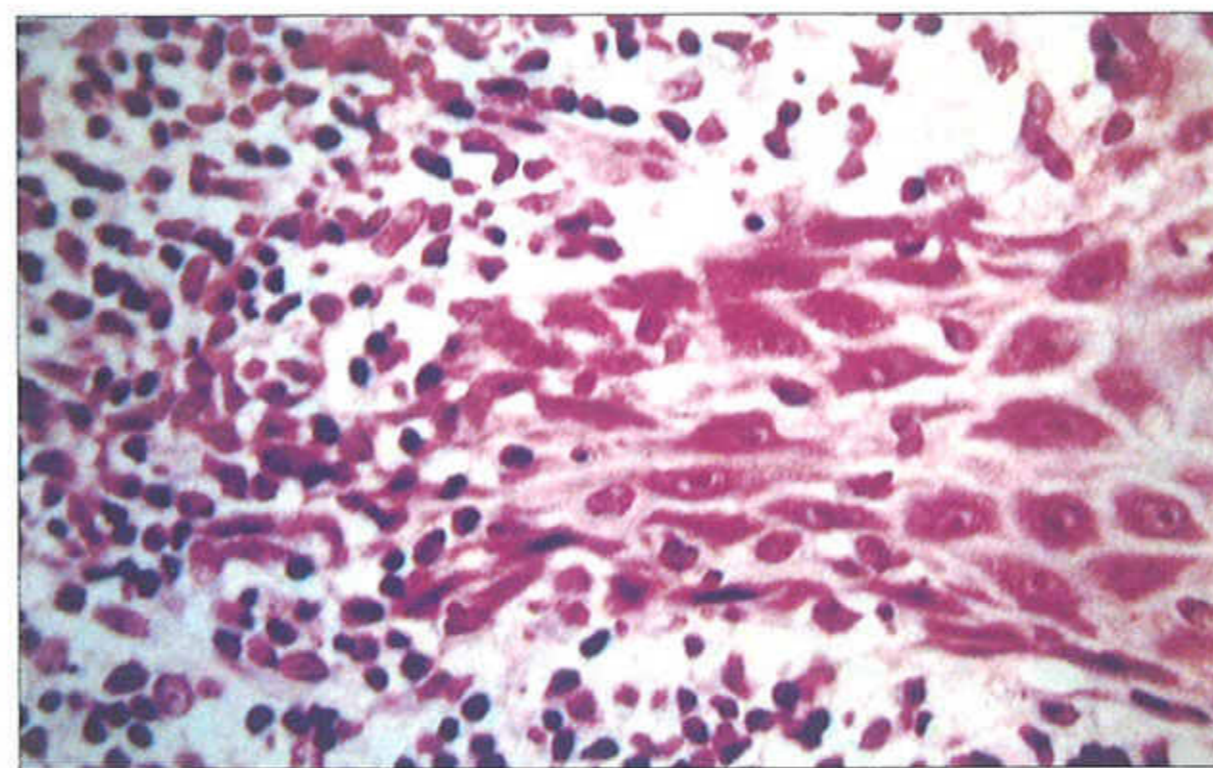


FIG IX : Photograph showing liquefaction degeneration of the basal cell layer with lymphocytic infiltration. (H & EX 400).

DISUCSSION:

Grinspan's syndrome remains a rare entity as little research has been performed in this area.⁽³⁾ Although, review of literature reveals statistical certainty of association between oral erosive lichen planus, diabetes mellitus and hypertension, no direct interrelationship between these factors has yet been established.

Since drug therapy for diabetes mellitus and hypertension is capable of inducing lichenoid reactions of the oral mucosa, there is a speculation as to whether Grinspan's syndrome is an iatrogenically induced syndrome or not.⁽³⁾

In this regard, clinical presentation and histological examination of the biopsy specimen may be helpful in distinguishing between idiopathic and drug induced lichen planus.⁽⁴⁾

Lichenoid drug reaction should be suspected if the eruption is photodistributed, scaly but not hypertrophic, confluent or wide spread. (The clinical features that are usual of idiopathic lichen planus). Nail changes are rarely seen in drug induced lichenoid reactions.⁽²⁾

In contrast, in this particular case the lesion was widespread, confluent and hypertrophic. The exposed parts of the body were relatively spared; severe nail change (pterygium formation)⁽²⁾ were noted, thus consistent with the diagnostic criteria for lichen planus. Histological specimen of drug induced lichenoid reaction shows more of parakeratosis and eosinophils infiltration. Pigment incontinence and prominent granular cell layer are not seen.

When the clinical and histopathological evaluation

cannot differentiate between the diagnosis of idiopathic lichen planus and drug induced lichenoid reaction, immunofluorescent examination is of great importance.

Osten et al⁽¹³⁾, demonstrated lichen planus specific antigen (LPSA) in serum and in biopsy specimens of lichen planus and concluded that immunofluorescence was more reliable than histopathology.

Van Joost⁽¹⁴⁾ conducted a study to evaluate the efficacy of indirect immunofluorescence as an aid for confirming the clinical suspicion of cutaneous drug reaction. He demonstrated annular fluorescence pattern of basal cells due to circulating IgG. This phenomenon is termed as "String of Pearls".

Also immunofluorescence testing of venous blood for "String of pearls" appearance may be helpful in diagnosing lichenoid drug reaction.⁽⁵⁾ However, a case report by P.J. Lamey et al reveals that in spite of having the histological features of lichenoid reaction, one out of 3 reported cases lacked evidence of both direct and indirect immunofluorescence testing.⁽³⁾

Watanabe et al⁽¹⁵⁾ using an immunofluorescent technique investigated drug induced lichen planus and idiopathic lichen planus and since the lesions were essentially identical they suggested that both the conditions share a common disease process.

As of yet there is no specific test for lichenoid reaction, although resolution and recurrence of lichenoid reaction on withdrawal and exposure to drugs is probably diagnostic.

CONCLUSION:

Classical lichen planus displays lesions that are so characteristic that, the clinical examination is often adequate to suspect the diagnosis.⁽²⁾ However, Lichenoid drug eruptions may be difficult to distinguish from lichen planus, as no definite and accurate parameters are available till date.

Extensive study is needed to know the exact nature of correlation between oral erosive lichen planus, diabetes mellitus and hypertension. This may solve the controversy as to whether Grinspan's syndrome is an iatrogenically induced syndrome or not.

REFERENCE:

1. Colella G, Itró A, Gorvo G. A case of carcinoma arising in lichen planus in a subject with diabetes mellitus and arterial hypertension (Grinspan's syndrome). *Minerva - Stomatol* 1992 Sep; 41(9): 417-20.
2. Richard B, et al. *Andrew's Text Book of 'Diseases of the Skin' clinical dermatology*. 9th edition. Philadelphia, WB Saunders Co, 1984.
3. Lamey PJ, et al. Grinspan's syndrome: A drug induced phenomenon? *Oral Surgery Oral Med Oral Pathol* 1990; 70: 184-5.
4. Van den Haute V, et al. Histopathological discriminant criteria between lichenoid drug eruption and idiopathic lichen planus. *Dermatologica* 1989; 179: 10.
5. Mc Queen A, Behan WMH. Immunofluorescence microscopy - The string of pearls phenomenon. An immunofluorescence serological finding in patients screened for adverse drug reactions. *Am J Dermatol* 1982; 4: 155-9.
6. Grinspan D, Diaz J, Villapol LO, et al. Liqueur rogo plano erosive de lar mucosa buccal see association can diabetes. *Actes finals del V. congress Ibero Latino Americano de Dermatologica*, 1963: 1243.
7. Allinde MF, Lichen Planus and its possible association with vascular hypertension. *J. Invest Dermatol* 1955; 15: 7-8.
8. Grinspan D, Diaz J, Eillapol LO, et al. Lichen rubber planus de la muquese buccale, sone association a an diabete. *Bull Soc. Frane Derm - Syph* 1966; 73:88-9.
9. Lynch FW. An apparent association of lichen planus with vascular hypertension. *J Invest Dermatol* 1949; 13: 43-5.
10. Aljabre SH, Grinspan's syndrome. *J Am Acad Dermatol*. 1994 Apr; 30(4): 671.
11. Douzhanskii IS, Iudin SV. (Grinspan's Syndrome). *Vestn Dermatol Venerol*. 1984 Oct; (10): 66-8 Russian.
12. Ellgehausen P, Elsner P, Burg G. Drug induced lichen planus. *Clin Dermatol* 1998 May-Ju; 16(3): 325-32.
13. Oslen RG, due plessis DP, et al. Lichen planus dermopathy: Demonstration of lichen planus specific antigen in affected patients. *J Clin Lab Dermatol* 1983; 10: 103-106.
14. Van Joost T. Incidence of circulating antibodies reacting with basal cells of skin in drug reactions. *Acta Derma Venerol* 1974; 54: 183-8.
15. Watanabe C, Hayashi Tseetomee, et al. Immunofluorescence study of drug induced lichen planus like lesion. *J Dermatol* 1981; 8: 473-477.