Case 10.1

Patient: A 33-year-old Thai woman from Sra-kaew

Chief Complaint: Hyperpigmented rash on the trunk and inguinal area for 1 year

Present Illness: The patient noticed asymptomatic violaceous to brownish patches for 1 year, first appeared on the inguinal area then gradually progress to trunk. She has no other systemic symptom.

Past History: She was diagnosed with Lawrence Moon Bardet Biedl syndrome (hypogonad, obesity, toe deformity, mental retardation), diabetes mellitus, hypertension and dyslipidemia and has been treated with insulin, metformin, simvastatin, losartan, atenolol, fluoxetine for many years.

Family History: No family member had similar skin lesion.

Physical Examination:
A Thai female, short stature
HEENT: not pale, no jaundice
H&L: WNL
Breast & Genitalia: Tanner Stage III
Abdomen: No hepatosplenomaegaly
Ext: Shortening of metatarsal 4^{th}-5^{th} bone of toe both feet

Dermatological Examination (Figure 10.1-2)**:** Multiple reticulated and annular violaceous scaly papules and plaques at inguinal area. Multiple reticulated violaceous to brownish patches at trunk. Scalp, oral mucosa, nail: WNL

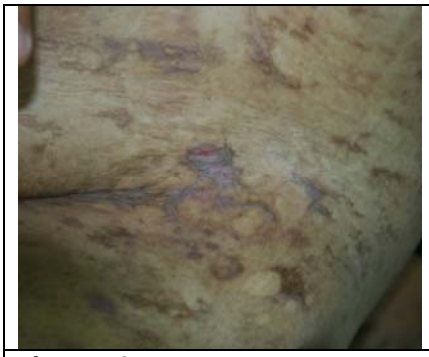

Figure 10.1

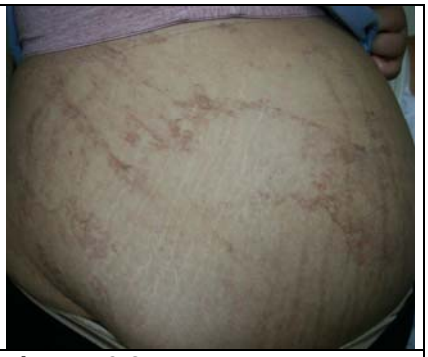

Figure 10.2

Histopathology (S10-8359) (Figure 10.3-4): Hyperkeratosis hypergranulosis with superficial lichenoid infiltrate with lymphocytes admixed with some melanophages obscuring the DEJ

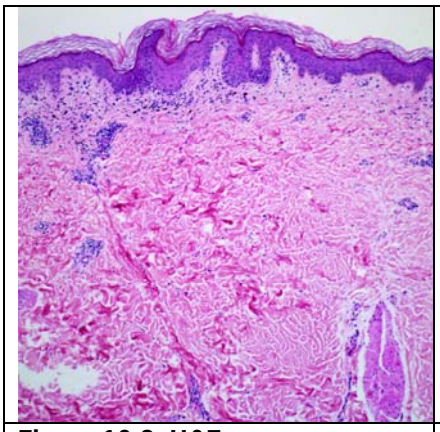

Figure 10.3, H&E

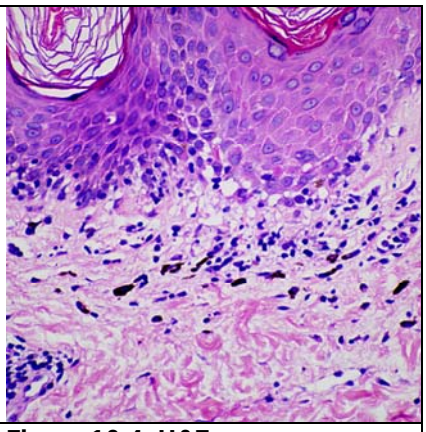

Figure 10.4, H&E

Diagnosis: Reticulated lichen planus

Treatment: 0.1% triamcinolone acetonide cream
10% urea cream

Case 10.2

Patient: A 29-year-old Thai male from Ang Thong

Chief Complaint: Skin rash over the body for 1 year

Present Illness: Itchy skin lesions first developed at left arm as pinkish hue. It turned darker in color and extended to trunk, back, upper and lower extremities and face. He denied any chemical contact at work or residence except the bar soap. Lesions were treated by topical corticosteroid without any improvement.

Personal History: He is an office worker. He has no underlying disease.

Dermatological Examination (Figure 10.5-9)**:** Multiple ill-defined brown-gray hyperpigmented patches, some with recticulate pattern, symmetrically distributed at forehead, trunk, back, both upper and lower extremities. No lesion at oral mucosa and nail.

Physical Examination: unremarkable

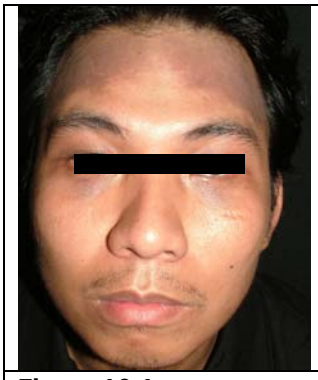

Figure 10.1

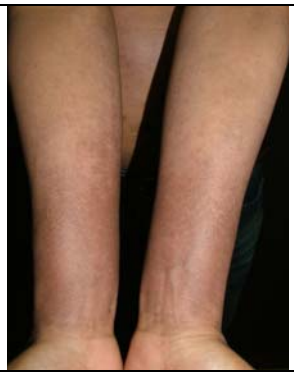

Figure 10.2

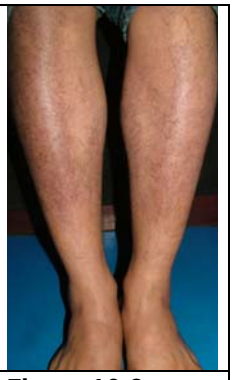

Figure 10.3

Figure 10.8

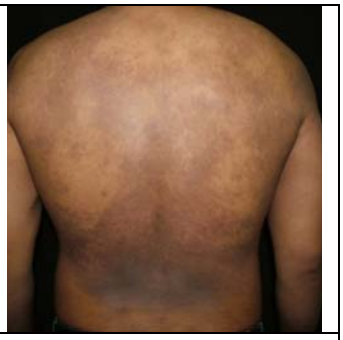

Figure 10.9

Histopathology (S09-12543) (Figure 10.10):

- mild hyperkeratosis, hypergranulosis and epidermal atrophy
- superficial lichenoid infiltrate of melanophages and some lymphocytes with vacuolar alteration of basal cell layer

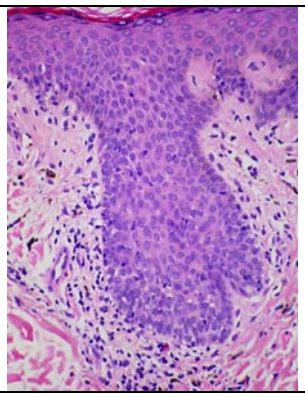

Figure 10.10, H&E 200x

Diagnosis: Generalized lichen planus pigmentosus

Treatment: 0.1% triamcinolone acetonide cream,
3% lactic acid cream,
2% hydroquinone cream
low fluence QS Nd YAG

Presenters: Chayada Kokpol

Sinijchaya Sahawatwong

Consultant: Vasanop Vachiramon

Discussion:

Lichen planus (LP) is an inflammatory dermatosis of the mucocutaneous surfaces that can present with a variety of clinical manifestations. The classic presentation of LP involves the appearance of polygonal, flat-topped, violaceous papules and plaques. Superimposed, reticulated white scale, termed "Wickham's striae".[1]

Numerous subtypes of cutaneous LP, which vary by lesion configuration or morphology, have been described. Several case reports have described patients with linear lesions of LP following a "blaschkoid" distribution.[2] Less common is LP configured in a zosteriform distribution.[3] Reticulated LP has been rarely reported. To the best of our knowledge, there has been only 2 report case of reticulated lichen planus.[4-5]

Lichen planus pigmentosus (LPP), first described by Bhutani et al.[6] is a fairly frequently encountered disorder of hyperpigmentation in Indians. Although initially described in Indians, this disorder has subsequently been seen in other racial and ethnic groups.[7] It generally starts in the third or fourth decade of life and there is a slight female predilection.[8]

LPP is a condition of unknown aetiology. Cell-mediated immunity seems to play a role in triggering the disease. Clinical manifestation of LPP is dark brown macules and/or papules. Color of skin lesion is variable in shades, bluish-black, slate-gray and dark-brown. Pigmentation is mostly diffuse or reticular in pattern. The diffuse form is the most common type of pigmentation, with the reticular and perifollicular patterns being less common. LPP had a long

clinical course without pruritus or any scalp, nail or mucosal involvement.[9-11] Other rare presentations include zosteriform pattern[12], linear pattern[13] and annular plaque.[14]

The common distributions are sun-exposed area (the face, neck and upper extremities), rarely mucosa. Some authors observed a striking predominance of lesion in an intertriginous location such as axilla, inframammary fold and groin, thus they proposed the designation lichen planus pigmentosus inversus. Bilateral distribution is more common than unilateral distribution.[8-10]

Histopathologic findings include vacuolar degeneration of the basal layer, perivascular lymphohostiocytic infiltration and presence of melanophages.[8] However, apoptotic keratinocytes and band-like lymphohistiocytic inflammatory cell infiltration could be found, especially in recently developed lesion.[15]

Considerations in the differential diagnosis include ashy dermatosis, contact and occupational dermatosis with hyperpigmentation, and drug-related dermatosis. Most of these can be differentiated by occupation, history of drug abuse, or clinical findings, but Ashy dermatosis is the most important and difficult in the differential diagnosis. Some authors believe that it is a different entity[16] while the others believe that it is a continuous spectrum of the same disease process.[17]

Coexistence of classic lichen planus and lichen planus pigmentosus have been reported.[8, 18] Kanwar et al, reported the coincidence of these 19 in 124 cases of LPP. They suggested that since the presence of LP in a number of their LPP patients and the histopathological resemblance to LP, they consider LPP to be a variant of LP in concordance with Bhutani et al.[7, 8]

There is no specific treatment for lichen planus pigmentosus. Topical corticosteroid and tacrolimus had been used with variable results.[15,18] Other drugs used with inconsistent results are griseofluvin, prednisolone, etretinate and chloroquine.[19]

Our patient no.1 was treated with topical corticosteroid and 10% Urea cream with slight improvement, while patient no.2 was treated by topical corticosteroid and 3% lactic acid cream, 2% hydroquinone cream and 4 sessions of low fluence Qs Nd YAG. The result was favourable.

References

1 Lehman JS, Tollefson MM, Gibson LE. Lichen planus. Int J Dermatol. 2009;48(7):682-94.

2. Happle R. Superimposed segmental manifestation of polygenic skin disorders. J Am Acad Dermatol 2007; 57: 690–699.

3. Mohrenschlager M, Engst R, Hein R, et al . Primary manifestations of a zosteriform lichen planus: isotopic response following herpes zoster sine herpete? Br J Dermatol 2008; 158: 1145–6.

4. Gougerot H, Degos R, Meyer JJ. Reticulated lichen planus Bull Soc Fr Dermatol Syphiligr. 1951;58:529-30.

5. Lin MY, Chen LJ, Ma L, Wu WY, Xiang LH. Generalezed reticulated hyperpigmentation induced by lichen planus. Clin Exp Dermatol. 2009; 34: 636-9.

6. Champion RH, Burton JL, Burns DA, Breatnach SM. Rook/Wilkinson/Ebling's Textbook of Dermatology. Blackwell Science, Oxford, 1998.

7 Bhutani L, Bedi T, Pandhi R. Lichen planus pigmentosus. Dermatologica. 1974; 149: 43–50.

8 Kanwar AJ, Dogra S, Handa S, Parsad D, Radotra BD. A study of 124 Indian patients with lichen planus pigmentosus. Clin Exp Dermatol. 2003; 28: 481-5.

9 Shai A, Halevy S. Lichen planus and lichen planus-like eruptions: pathogenesis and associated diseases. Int J Dermatol. 1992; 31: 379–84.

10. Pock L, Jelinkova L, Drlik L, et al. Lichen planus pigmentosus-inversus. J Eur Acad Dermatol Venereol. 2001; 15: 452-4.

11. Ozden MG, Yildiz L, Aydin F, Senturk N, Canturk T, Turanli AY. Lichen planus pigmentosus presenting as generalized reticulate pigmentation with scalp involvement Clin Exp Dermatol. 2009; 34: 636-7.
12. Cho S, Whang KK. Lichen planus pigmentosus presenting in zosteriform pattern. J Dermatol. 1997; 24: 193-7.
13. Hong S, Shin JH, Kang HY. Two cases of lichen planus pigmentosus presenting with a linear pattern. J Korean Med sci. 2004; 19: 152-4.
14. Bennàssar A, Mas A, Julià M, Iranzo P, Ferrando J. Annular plaques in the skin folds: 4 cases of lichen planus pigmentosus-inversus. Actas Dermosifiliogr. 2009 Sep; 100: 602-5.
15. N Al-Mutairi, M El-Khalawany. Clinicopathological characteristics of lichen planus pigmentosus and its response to tacrolimus ointment: an open label, non-randomized, prospective study. J Eur Acad Dermatol Venereol. 2010; 24: 535-40.
16. Vega ME, Waxtein L, Arenas R, Hojyo T, Dominguez-Soto L. Ashy dermatosis versus lichen planus pigmentosus: a controversial matter. Int J Dermatol. 1992; 31: 87-8.
17. Kark EC, Litt JZ. Ashy dermatosis. A variant of lichen planus? Cutis. 1980; 25: 631-3.
18. Kim BS, Aum JA, Kim HS et al. Coexistence of classic lichen planus and lichen planus pigmentosus-inversus: resistant to both tacrolimus and clobetasol propionate ointments. J Eur Acad Dermatol Venereol. 2008; 22: 101–136.
19. Dominguez-Soto L, Hojyo-Tomoka T, Vega Mamije E, Arenas R, Cortes-Franco R. Pigmentary problems in the tropics. Dermatologics clinics. 1994; 12: 777-84.