Case 3
40 Year Old White Female with an Itchy, Widespread Rash

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History and Clinical

A 40-year-old white female presented with erythematous plaques with whitish streaks that had spread throughout her body. On the first occurrence of these rashes, she visited an emergency room where she was given glucocorticoid injections. The patient was instructed to see her primary care physician, where she was given a topical steroid ointment and oral steroid tablets. The patient had stopped taking the steroid tablets due to weight gain and increased fluid retention, even though they were resolving the skin lesions. The physician diagnosed the condition as psoriasis although no biopsy was done. The patient also had a history of diabetes and had noted that heat and stress made her skin lesions worse. A recent laboratory test revealed that she had elevated hepatitis C antibodies.

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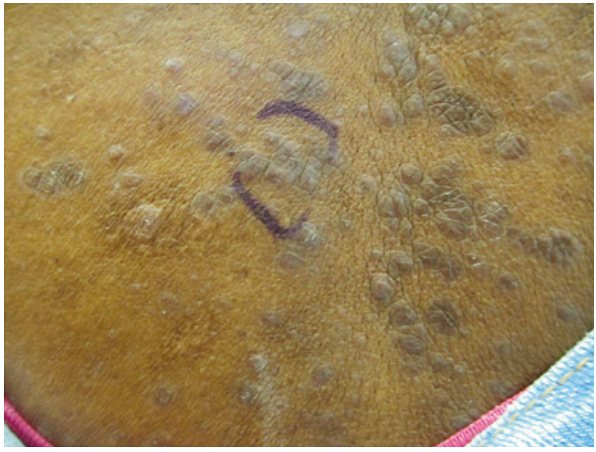

FIGURE 3.1 Lichen Planus

Physical Examination

The patient upon examination showed signs of pruritus and ichthyosis where the hypo- pigmented lesions were present. A shave biopsy was performed on a lesion located on the inferior medial portion of the mid-back (Fig. 3.1), which measured $1.0 \times 0.8 \times 0.1$ cm.

Clinical Differential Diagnosis

- Drug eruption
- Lichen Planus secondary to Hepatitis C infection
- Psoriasis
- Tinea
- Contact dermatitis

Histopathology

Sections showed a band-like infiltrate of lymphocytes along the epidermal/dermal junction. The junction showed "sawtooth" like changes. Focal wedge shaped hypergranulosis was seen (Fig. 3.2) Period Acid-Schiff stain tested negative for fungus.

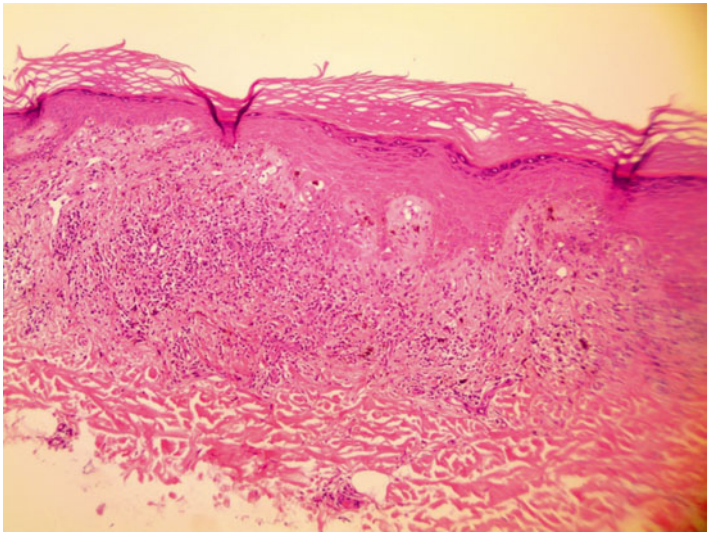

FIGURE 3.2 H&E 100×, Lichen planus eruption secondary to Hepatitis C infection

Diagnosis

LICHEN PLANUS SECONDARY TO HEPATITIS C INFECTION. Hepatitis C is found in between 16 and 29 % of patients with lichen planus, and believed to be a trigger event. There is also an association with other liver diseases such as autoimmune chronic active hepatitis, primary biliary cirrhosis, and post viral chronic active hepatitis. D-penicillamine is known to exacerbate lichen planus. Lichen planus has been given the nickname "4P" to describe its clinical appearance, Pigmented, Purpuric, Pruritic, Plaques.

A drug eruption can have a variety of patterns; perivascular, lichenoid, psoriasiform, and interface. A clue to drug etiology is the presence of a few eosinophils combined with a clinical history of an eruption shortly after ingestion of the offending drug. A benign lichenoid keratosis is usually a solitary lesion and rarely contains eosinophils. Other lichenoid processes like erythema multiforme, TEN, Graft vs Host disease all have distinctive clinical presentations. Erythema multiforme has a

target-like pattern. Graft vs host has a history of a transplant such as a bone marrow transplant. Psoriasis can have a similar clinical appearance, however, the distinction is readily made microscopically. Psoriasis has a characteristic comb-like acanthuses with collections of neutrophils (Pautriers micro abscess). The scaly texture can raise the differential of tinea clinically, but microscopic examination only shows a sparse perivascular lymphocytic infiltrate with PAS positive staining fungal hyphae. A contact dermatitis could be considered microscopically, however, contact dermatitis is typically confluent with sharply demarcated borders.

Treatment Options

- Steroids (topical and systemic)
- Topical retinoids
- Tacrolimus
- Pimecrolimus
- Cyclosporine
- Phototherapy

Recommended Reading

Goldsmith LA et al. Fitzpatrick's dermatology in general medicine. 8th ed. New York: McGraw-Hill Co; 2012. p. 296–316.