A 53-year-old male presented with a 20-year history of rashing and severe pruritus on the left lower leg. He admitted to rubbing and scratching incessantly. Treatment with a variety of topical steroids and moisturizing lotions had proven ineffective. Physical examination revealed a 30cm x 10cm slightly scaled and hyperpigmented plaque studded with 1mm lichenified papules. (Figures 1 & 2)

A shave biopsy obtained from this lesion revealed moderate to marked acanthosis with elongation and broadening of the rete ridges, preservation of the granular layer, papillomatosis, and focal intercellular spongiosis. Hyperkeratosis and focal parakeratosis were seen. Dermal papillae were rounded and contained globular deposits of amyloid. A lymphohistiocytic perivascular infiltrate was present in the upper dermis, which was slightly fibrotic. (Figures 3, 4) Congo red stain with appropriate controls showed green birefringence. (Figure 5) Crystal violet stain with appropriate controls demonstrated positive staining with amyloid deposits in the papillary dermis. (Figure 6) These pathological findings in this clinical setting were consistent with lichen amyloidosis.

**DISCUSSION**

Lichen amyloidosis is the most common variant of primary amyloidosis.
cutaneous amyloidosis (PCA) and is associated with the extracellular deposition of amyloid in the skin without associated internal organ involvement. The amyloid deposits in PCA are keratinocyte-derived, primarily composed of keratinocyte. Most cases of PCA have been described in Southeast Asian, South American, and Chinese patients. The pathogenesis is not completely understood. Prolonged rubbing and friction are thought to be the primary etiologic factor, though Epstein-Barr virus has been demonstrated in a large number of cases of PCA. Rare familial cases have also been described. Lichen amyloidosis may initially present as discrete hyperpigmented papules, while later clinical findings include persistent, pruritic, lichenified plaques. The most common location is the extensor surface of extremities, such as the shin or thigh. Typical pathologic findings include pink amorphous deposits representing amyloid in the papillary dermis. The overlying epidermis is typically hyperkeratotic and acanthotic. Positive staining with congo red and crystal violet stains can assist with the diagnosis.

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Figure 6: The amyloid deposits can also be highlighted using Congo red staining, which exhibits apple-green birefringence when examined under polarized light. (Congo red x 100)