

## SKINimages

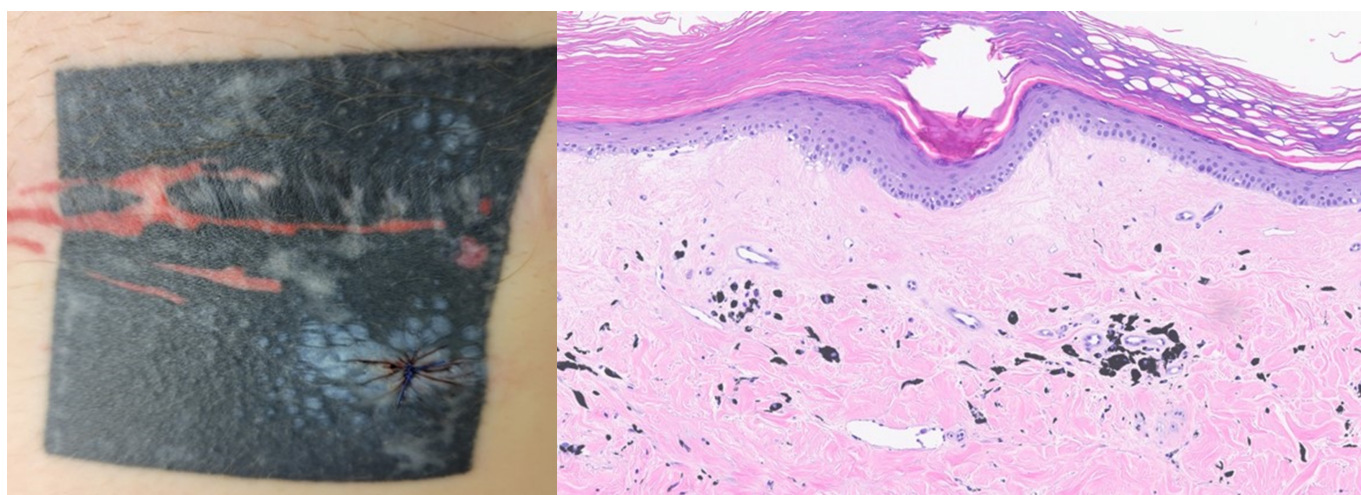
## Hypopigmented Plaques Arising in a Tattoo

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A man in his 40s with a remote history of thyroidectomy for noncancerous thyroid nodules presented with an asymptomatic rash on his left chest tattoo. The rash had started 18 months after tattoo placement and gradually spread the year prior to presentation. Examination revealed bluish-white, atrophic papules coalescing into plaques in the inferolateral and superolateral aspects of a multicolored tattoo (**Figure 1**). The patient denied rash elsewhere, including the genitals, and declined further physical examination. Histopathologic examination of a punch biopsy showed compact hyperkeratosis, epidermal atrophy with effaced rete ridges and vacuolar degeneration, and papillary dermal pallor

overlying tattoo pigment and pigment incontinence (**Figure 2**).

Clinical and histologic findings were consistent with lichen sclerosis (LS), a chronic dermatosis of white, atrophic papules and plaques that favors the anogenital skin of females.<sup>1,2</sup> Pain, pruritus, dyspareunia, and dysuria are commonly reported with anogenital LS, which bears an increased risk of malignant transformation to squamous cell carcinoma (4 to 6.7%).<sup>1,2</sup> While the exact etiology is unknown, the pathogenesis of LS is primarily thought to be autoimmune. There is a strong association with IgG autoantibodies against extracellular matrix protein 1, a structural glycoprotein that maintains the integrity of the dermal-

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epidermal junction.<sup>1,2</sup> Classically, LS demonstrates a “red, white, and blue” pattern on hematoxylin and eosin staining, with compact hyperkeratosis (red), early papillary dermal edema followed by later collagen homogenization (white), and an underlying lymphocyte-predominant infiltrate (blue) that is more pronounced in early lesions.<sup>3</sup>

Our case highlights a highly atypical presentation of extragenital LS limited to the tattoo of a transgender male. Unlike LS, sarcoidosis arising in scars and tattoos is well documented.<sup>4</sup> Sarcoidosis is a chronic, multiorgan inflammatory disease that most commonly affects the lungs. Cutaneous findings are seen in up to a third of patients with sarcoidosis and may present before, with, or after systemic involvement.<sup>5</sup> Aside from scar sarcoid, morphologic variants include papular, annular, plaque, subcutaneous, ulcerative, hypopigmented, ichthyosiform, erythrodermic, and alopecic, making histopathologic examination crucial to diagnosis.<sup>5</sup> Given the potential for permanent respiratory impairment, uveitis, cardiomyopathy, and other organ system damage, early diagnosis of sarcoid is of utmost importance.<sup>5</sup> Skin biopsy showing naked, non-caseating epithelioid granulomas can noninvasively confirm the diagnosis.<sup>5</sup>

Histopathology excluded sarcoidosis in our patient and confirmed the clinically more benign diagnosis of extragenital LS. Unlike anogenital LS, extragenital LS is generally asymptomatic or mildly pruritic.<sup>2</sup> In cases of anogenital involvement, treatment of LS aims to alleviate symptoms and minimize progression and risk of malignant transformation.<sup>1</sup> First-line treatment consists of ultrapotent corticosteroids.<sup>1</sup> Our patient was prescribed triamcinolone 0.1% ointment twice daily, which he stopped using after a couple weeks. Five months after diagnosis,

the rash remained asymptomatic and confined to the tattoo.

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