

# Annular Lichen Sclerosus et Atrophicus

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*Lichen sclerosus et atrophicus (LSA) is an idiopathic skin condition characterized by ivory-colored, atrophic papules and plaques. Many variants of LSA have been described. Only rarely has an annular variant been noted. We present a case of annular LSA and discuss the other reported cases exhibiting an annular shape.*

**L**ichen sclerosus et atrophicus (LSA) is an idiopathic cutaneous disorder characterized by ivory-colored, atrophic, telangiectatic papules that coalesce into plaques. LSA predominantly affects prepubescent and postmenopausal females.<sup>1</sup> Clinical variants of this disease include bullous,<sup>2,5</sup> generalized,<sup>2,6</sup> linear,<sup>7,8</sup> palmar-plantar,<sup>9</sup> oral,<sup>10</sup> verrucous,<sup>11,12</sup> corymbiform<sup>13</sup> and, rarely, annular forms.<sup>14-17</sup> Köbner phenomenon<sup>11,18,19</sup> also has been observed and often creates unusually shaped lesions. We report a case of annular LSA.

## Case Report

A 56-year-old white female presented with a 5-year history of pruritic, burning lesions on her anal and genital regions, extremities, and trunk. The lesions first appeared in the anogenital region and then spread to the legs and arms. She had no prior treatment. Her past medical history included type 2 diabetes mellitus, gastritis, hypothyroidism, and thoracic outlet syndrome. Her medications included bupropion hydrochloride, cisapride, furosemide, glipizide, omeprazole, propoxyphene, and thyroxine.

Physical examination revealed several scattered, atrophic, ivory, telangiectatic, minimally scaling plaques on the vulva (Figure 1A), perianal area, extremities, and trunk. Some of the lesions were annular (Figure 1B), and no oral lesions were present.

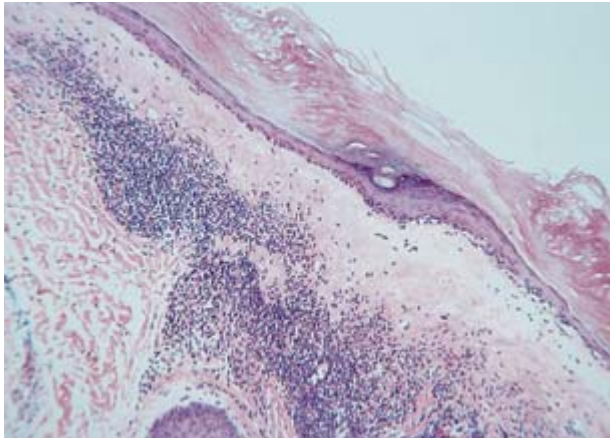
A punch biopsy was performed, and histopathologic examination revealed moderate orthohyperkeratosis, marked epidermal atrophy, and focal basal vacuolation. There was hyalinization and edema of the papillary dermis with a bandlike, lymphocytic



**Figure 1.** A large, well-defined, erythematous, atrophic, telangiectatic, minimally scaling plaque involving the vulva (A). Annular, erythematous, atrophic, telangiectatic, minimally scaling plaque on the anterior aspect of the thigh (B).

infiltrate at the junction between the papillary and reticular dermis (Figure 2). These clinical and histologic findings are characteristic of LSA. The patient was treated once daily for several weeks with a class 1 topical steroid and showed marked improvement.

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**Figure 2.** Orthohyperkeratosis, marked epidermal atrophy, focal basal vacuolation, hyalinization, and edema of the papillary dermis along with a bandlike, lymphocytic infiltrate (H&E, original magnification  $\times 100$ ).

### Comment

LSA lesions begin as small white papules that eventually coalesce into plaques that reveal telangiectasia and atrophy. The lesions usually have dells within the enlarging plaques. This disorder primarily occurs in prepubescent and postmenopausal females and most commonly affects the anogenital region.<sup>20</sup> Multiple variants of LSA have been described and differ from typical LSA in the distribution of lesions, pattern, or morphology. Extensive involvement of the skin, including a generalized distribution, has been noted<sup>2,6</sup>; and there have been cases of palmar-plantar<sup>9</sup> and oral involvement.<sup>10</sup>

Unusual patterns of LSA also exist and, in part, develop secondary to Köbner phenomenon following trauma.<sup>11,18,19</sup> Lesions have developed in surgical scars,<sup>18</sup> at vaccination sites,<sup>11</sup> and on areas subject to friction from tight clothing.<sup>19</sup> Atypical patterns unrelated to trauma or Köbner phenomenon also exist, and a linear arrangement of lesions without previous trauma has been reported.<sup>7,8</sup>

In addition to variable distributions and patterns, multiple morphologic pictures have been reported in LSA. A cribriform appearance results from grouped dells within the plaques,<sup>13</sup> and bullous lesions result from extensive basal vacuolation. Often, the bulla that appear with LSA are hemorrhagic.<sup>1,5</sup> Verrucous variants of LSA also have been reported.<sup>11,12</sup> Annular LSA has been previously reported but not clearly defined. Nine cases, which are published using the term *annular atrophic plaques of the face*,<sup>14,17</sup> appear to have histologic findings of lupus erythematosus<sup>14,16</sup> or lichen planus.<sup>17</sup> The findings in only 4 of the cases appear to characterize LSA.<sup>15,17</sup>

Our case illustrates a rare presentation of LSA and represents the first reported individual with nonfacial

involvement. Based on our findings, we conclude that LSA should be considered in the differential diagnosis of annular plaques.

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