A case report: The dermatoscopic finding of rosettes on extragenital lichen sclerosus



Sophia A. Ederaine, BA,^a Jamison A. Harvey, MD,^b and David L. Swanson, MD^b Scottsdale, Arizona

Key words: clinical dermatology; dermatoscopy; lichen sclerosus; rosette sign.

INTRODUCTION

Lichen sclerosus is a chronic inflammatory skin disease with clinical features overlapping with morphea. On dermatoscopy, extragenital lichen sclerosus (ELS) commonly may be differentiated from morphea by the presence of yellowish-white keratotic follicular plugs lying within bright white/ white-yellowish patches.¹

The rosette sign is a dermatoscopic structure seen in actinic keratoses, squamous cell carcinoma, melanoma, and basal cell carcinoma as well as some inflammatory disorders (such as lichen planus).² Rosettes are best seen with polarized dermatoscopy and are an optical artifact from dyskeratinization in adnexal openings.² To our knowledge, there have been no prior reports of the rosettes in ELS.³ We report the dermatoscopic finding of rosettes in a patient with biopsy-proven ELS.

CASE REPORT

An 81-year-old woman presented with the concern of lightening of skin. A clinical examination revealed depigmented macules coalescing into plaques on the forehead, arms, abdomen (Fig 1), and legs. Dermatoscopy of the abdomen lesions demonstrated white patches with numerous rosettes at follicular openings (Fig 2). The histopathology of the midline part of the upper portion of the abdomen showed epidermal atrophy with effacement of the rete ridges, focal hyperkeratosis, and homogenization of dermal collagen with scant chronic inflammation, confirming the diagnosis of lichen sclerosus.

DISCUSSION

We report a case of rosette sign dermatoscopically in ELS, and we believe that it may be a feature of the disease. On dermatopathology and clinically, lichen

From the Mayo Clinic Alix School of Medicine – Scottsdale Campus^a and Mayo Clinic Department of Dermatology.^b

Funding sources: None.

IRB approval status: Not applicable.

Abbreviation used:

ELS: extragenital lichen sclerosus



Fig 1. Clinical presentation of extragenital lichen sclerosus on the abdomen.

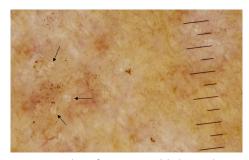


Fig 2. Two macules of extragenital lichen sclerosus (upper right and lower left) showing rosettes (arrows) within.

sclerosus often displays follicular plugging, which may correlate with the rosettes.¹ In comparison, morphea will not have follicular plugging on histopathology or clinically.⁴ The rosette sign, along with whitish plaque and comedo-like openings, may lead to earlier diagnosis and expedite proper treatment.

Correspondence to: David L. Swanson, MD, Mayo Clinic Department of Dermatology, 13400 E Shea Blvd, Scottsdale, AZ 85259. E-mail: Swanson.David@mayo.edu.

JAAD Case Reports 2023;32:21-2.

²³⁵²⁻⁵¹²⁶

^{© 2022} Published by Elsevier on behalf of the American Academy of Dermatology, Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-ncnd/4.0/).

https://doi.org/10.1016/j.jdcr.2021.12.039

The limitation of this case report is the paucity of comparable cases with this dermatoscopic finding.

Conflicts of interest

None disclosed.

REFERENCES

 Errichetti E, Lallas A, Apalla Z, Di Stefani A, Stinco G. Dermoscopy of morphea and cutaneous lichen sclerosus: clinicopathological correlation study and comparative analysis. Dermatology. 2017;233(6):462-470. https://doi.org/10.1159/ 000484947

- Liebman TN, Scope A, Rabinovitz H, Braun RP, Marghoob AA. Rosettes may be observed in a range of conditions. *Arch Dermatol.* 2011;147(12):1468. https://doi.org/10.1001/archdermatol.2011.312
- 3. Luo Y, Liu J, Chi C, et al. Dermoscopic features of vulvar lichen sclerosus. *Chin J Dermatol.* 2018;51(11):809-811.
- McNiff JM, Glusac EJ, Lazova RZ, Carroll CB. Morphea limited to the superficial reticular dermis: an underrecognized histologic phenomenon. *Am J Dermatopathol*. 1999;21(4):315-319. https: //doi.org/10.1097/00000372-199908000-00001