
Using dermoscopy to assess diagnostic criteria of neurofibromatosis

Elisabeth Gómez Moyano, MD, PhD,^a Leandro Martínez Pilar, MD,^a
Marina Rodríguez Calvo de Mora, MD, PhD,^b Maria Virginia Herrero Garcia, MD,^c
Antonio Francia, MD,^a Daniel Jesús Godoy Diaz, MD,^a and Angel Vera Casaño, MD^a
Málaga, Spain

Key words: dermoscopy; iris; Lisch nodules; neurofibromatosis.

CLINICAL PRESENTATION

A 42-year-old woman was referred to the dermatology department with a history of cutaneous lesions. There was no personal or family history of any disorders.

Examination revealed multiple café au lait macules, axillary freckling, and multiple neurofibromas.

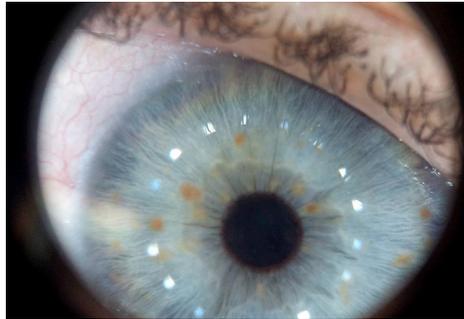


Fig 1. Lisch nodules observed under polarized light dermoscopy (Dermlite II Pro HR, 3Gen, San Juan Capistrano, CA and Camera Olympus Tough TG3, Barcelona, Spain).

DERMOSCOPIIC APPEARANCE

We used dermoscopy to look for Lisch nodules in the iris, and dermoscopy showed typical brownish-yellowish, rounded, disperse, bilateral Lisch nodules, more numerous in her left eye (Fig 1). The patient was referred to the ophthalmology department and the same features were observed by slit lamp examination (Fig 2).

From the Departments of Dermatology^a and Ophthalmology,^b Hospital Regional Universitario de Málaga; and Internal Medicine Department, Hospital Axarquía.^c

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Reprint requests: Elisabeth Gómez Moyano, MD, PhD, Dermatology Department, Hospital Regional Universitario de Málaga, Pza

Hospital Civil s/n.29009, Málaga, Spain. E-mail: elisabeth.gomez.moyano@gmail.com.

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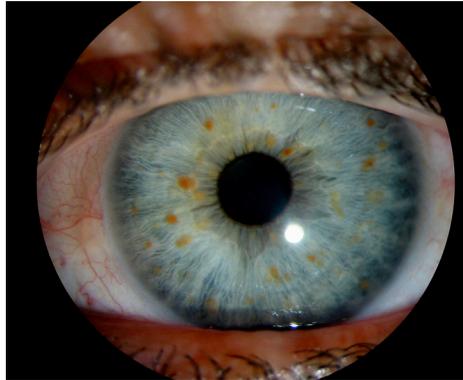


Fig 2. Lisch nodules observed by slit lamp examination (SL 115 Classic, Carl Zeiss Meditec, Spain. Camera Canon T1i, Melville, NY).

Table I. Differential diagnosis of Lisch nodules

Lisch nodules	Brownish paler, well-defined, dome-shaped elevations rising from the surface of the iris
Iris mammillations	Regularly spaced, deep-brown, and smooth conical iris elevations
Iris nevi	Flat or minimally elevated, densely pigmented lesions with blurred margins
Granulomatous iritis	Painful eye, gelatinous appearance
Melanoma iris	Pigmented, normally with diffuse or nodular shape, iris stroma invasion

KEY MESSAGE

Lisch nodules are elevated melanocytic hamartomas located in the iris that appear in patients with neurofibromatosis-1. Lisch nodules are usually bilateral and constitute the most common ophthalmologic sign in neurofibromatosis-1. During the teens, almost 70% of patients show them, and at age 20 years they are practically a universal finding. Lisch nodules do not cause any ophthalmologic disturbance. Two or more of these nodules, observed by slit lamp examination, constitute a diagnostic criteria¹ of the illness, but this case illustrates the use of dermoscopy on the ophthalmologic examination to confirm the diagnosis of neurofibromatosis.² Although Lisch nodules can occasionally be seen by the naked eye, a magnification examination is advisable to distinguish them from the more common iris nevus or other conditions that may also involve dermatologic lesions including iris mammillations (oculodermal melanocytosis and Ota nevus), iris melanoma (specially tapioca-like), and some granulomatous iritis (Table I). Dermoscopy to look for Lisch nodules can be useful for early diagnosis by the dermatologist³ in children with no family history and multiple café au lait spots when cutaneous neurofibromas have not yet appeared.

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