

only able to apply a single session in the present case owing to the appearance of side effects, and this may explain the incomplete response obtained. However, it is also possible that the immunomodulatory effect of PDT and the inflammation already present in the lesion (visible in the clinical and histological images) may have favored a good therapeutic response with just 1 session. Ulceration is a rare adverse event,⁸ and its appearance was probably due in some measure to the fact that the patient was an elderly woman and the leg was exposed to sunlight after treatment, contrary to express instructions.

In conclusion, we report a case of porokeratosis of Mibelli in which treatment with PDT obtained a partial response. Nevertheless, because the results achieved with photodynamic therapy in the treatment of porokeratosis are highly varied, we believe that further studies with larger series of cases are needed if we are to reach clear conclusions regarding its utility in this setting.

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Fabry Disease and the Clinical Spectrum of Angiokeratomas[☆]

Enfermedad de Fabry: espectro clínico de los angioqueratomas

To the Editor:

After Gaucher disease, Fabry disease is the most common storage disease caused by the progressive accumulation of glycosphingolipids in multiple organs. Clinical presentation is very varied, and furthermore, the manifestations in many of the organs affected are nonspecific.¹ Diagnosis is thus challenging and often delayed. The average time from onset of symptoms to a diagnosis of Fabry disease is around 10 years.² Cutaneous involvement is common and is one of the key signs that can lead a physician to suspect the disease. Skin manifestations include angiokeratomas, telangiectasias, abnormal sweating, and lymphedema. Recent studies of cutaneous involvement in Fabry disease have shown that the clinical spectrum of angiokeratomas is also varied.³ We performed a retrospective review of skin lesions in 5 patients (4 males and 1 female) with Fabry disease, with a particular focus on the clinical variants of angiokeratomas. The main clinical

features are shown in Table 1. The majority of patients, including the only woman, had classic extracutaneous manifestations. The mean age at onset of angiokeratomas was 17.2 years. Patients #4 and #5 had a classic bathing trunk appearance, and patient #5 also had less hyperkeratotic vascular lesions on the palms of both hands. The other 3 patients had less characteristic angiokeratomas. Patient #1 had small, isolated lesions around the mouth and the umbilicus (Fig. 1), while patient #3 had extensive angiokeratomas distributed almost exclusively on the left side of the body. Finally, patient #2, who was heterozygous, had lesions in the form of angiokeratomas on the left side of the vulva (Fig. 2) and small isolated lesions on the anterior surface of the trunk. Just 2 of the patients had hypohidrosis. With the exception of patient #1, all the patients were receiving enzyme replacement treatment, with a mean uninterrupted treatment period of 9 years; there had been no signs of the angiokeratomas disappearing or becoming smaller or any improvements in the other skin manifestations.

Angiokeratoma corporis diffusum is one of the 5 known types of angiokeratoma.⁴ It is highly characteristic of Fabry disease, but can also be seen in other lysosomal storage diseases.^{5,6} Angiokeratomas, which can appear in childhood or adulthood, develop in 66% of male patients with Fabry disease and in 36% of female patients.⁷ While the term *angiokeratoma corporis diffusum* suggests the presence of multiple angiokeratomas, this is not always the case. Furthermore, as seen in 3 of the 5 cases we describe, the lesions

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Table 1 Clinical Findings.

Patient	Sex (M/F)/ Age, y	Extracutaneous Manifestations	Location of Angiokeratomas	Age at Onset of Angiokeratomas, y	Duration of ERT, y	Other Skin Manifestations
1	M/11	Exercise intolerance Cornea verticillata	Around mouth and umbilicus	7	No treatment	None
2	F/36	Acroparesthesia Exercise intolerance Tinnitus Diarrhea Cornea verticillata	Left lumbar region, vulva	25	9	Hypohidrosis
3	M/24	Acroparesthesia Exercise intolerance Tinnitus Abdominal pain Cornea verticillata	Left body	6	8	None
4	M/50	Left ventricular hypertrophy Proteinuria Exercise intolerance Diarrhea	Flank, waist, and medial aspect of thighs	34	11	Hypohidrosis
5	M/32	Acroparesthesia Vascular tortuosity in both eyes	Thighs, buttocks, genitals, and palms	14	10	None

Abbreviations: ERT, enzyme replacement therapy; F, female; M, male.

can appear in isolation or in clusters and can affect any part of the skin, mucous membranes, or genitals. Angiokeratomas classically occur in a bathing trunk distribution, referred to as such because the lesions typically affect the buttocks, the thighs, and the genitals. Of particular interest in our series was the unilateral, left-sided, distribution observed in 1 patient and the presence of small lesions in 2 patients (around the mouth and the umbilicus in one case and on the genital mucosa in the other). The detection of angiokeratomas on the genital mucosa can erroneously lead to a diagnosis of angiokeratoma of Fordyce.

The diagnosis of Fabry disease in a patient with lesions in less common sites is more difficult, but physicians should

maintain a high level of clinical suspicion. While manifestations of the disease generally appear after the first decade of life, with acroparesthesia, angiokeratomas, exercise intolerance, and eye and gastrointestinal disorders, the main complications appear in young adults, who develop renal, cardiac, and cerebrovascular signs and symptoms. Considering that specific treatment is available for Fabry disease,

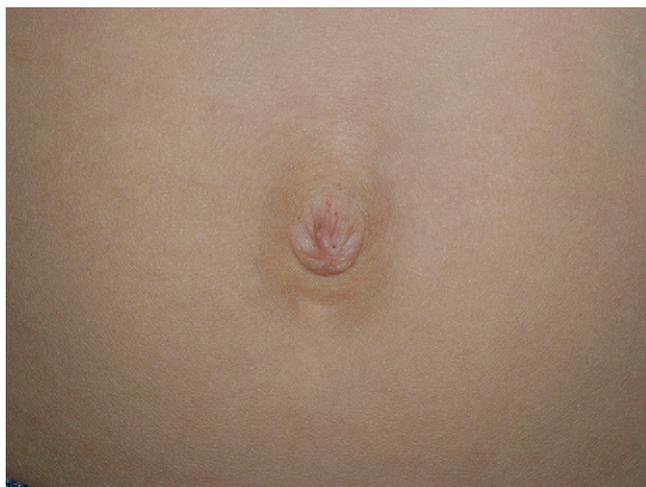


Figure 1 Small lesions in the form of angiokeratomas around the umbilicus (patient #1).



Figure 2 Angiokeratomas on the left side of the vulva (patient #2).

early diagnosis (often based on the detection of angiokeratomas) is important, as timely treatment can prevent the development of serious, irreversible complications. Dermatologists can play a key role in this respect.

Enzyme replacement therapy (with agalsidase alpha) is the only specific treatment available for Fabry disease, and has been shown to stabilize renal function and reduce left ventricular hypertrophy.⁸⁻¹⁰ In our series, treatment did not improve any of the skin manifestations present before treatment initiation.

In conclusion, the detection of angiokeratomas, regardless of their location or distribution, should alert the dermatologist to a possible diagnosis of Fabry disease and prompt the performance of relevant tests to confirm or rule out this serious, treatable disease. Young relatives of newly diagnosed patients should also be studied, with a particular focus on symptoms that may have been missed or interpreted incorrectly.

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Macular Arteritis: A Pole of the Spectrum of Cutaneous Polyarteritis Nodosa?[☆]

Arteritis macular: ¿en el espectro de la poliarteritis nudosa cutánea?

To the Editor:

Macular arteritis was first described in 2003 by Fein et al.¹ Since then, fewer than 15 cases have been reported. The disease mainly affects women with a mean age of 40 years² and usually presents as vaguely oval and pigmented macules on the legs.

Macular arteritis is confirmed by microscopy, which shows lymphocytic vasculitis selectively affecting the arterioles at the dermal subcutaneous junction. Macular arteritis is also known as lymphocytic thrombophilic arteritis because

of the induction of endothelial swelling, luminal stenosis, and, occasionally, concentric fibrin deposition.¹⁻³ Laboratory analyses reveal antinuclear antibodies in 30% of cases and anticardiolipin antibodies in up to 60%, although no apparent correlation with other manifestations of antiphospholipid syndrome has been found.^{2,3}

We present the case of a 61-year-old woman with no past history of interest who consulted for slowly progressive pigmented macules with poorly defined borders that had begun to appear 3 years earlier (Fig. 1). Biopsy revealed lymphocytic vasculitis selectively affecting the arterioles at the dermal subcutaneous junction (Fig. 2), with very noticeable lymphocytic cuffing, marked endothelial swelling, and narrowing of the vascular lumen, in which concentric fibrin deposition was visible (Fig. 3). The workup comprised a complete coagulation study, serology for autoimmune diseases, hepatotropic viruses, human immunodeficiency virus, and syphilis, erythrocyte sedimentation rate, antineutrophilic cytoplasmic antibody, and protein electrophoresis, all of which yielded normal or negative results. These findings led us to make a diagnosis of macular arteritis. The lesions stabilized or abated very slightly without treatment during

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