

excision and antibiotic therapy. The antibiotic of choice is penicillin, and prolonged treatment is recommended in order to prevent recurrences; the duration of treatment will vary according to the complexity of the condition (from 3 to 18 months). Due to a lack of previous experience in such cases, we decided to prescribe complementary treatment for 3 months after surgery, using an oral penicillin derivative, with a good outcome after follow-up.

An interesting issue is how the infection becomes established in cases of actinomycosis of the lip in which there is no recent history of predisposing factors. Infection of minimal self-injury would be favored by poor oral hygiene, as in our patient, or, more probably, infection occurs in a previous mucocele, as suggested in one of the cases published after the histological finding of a possible salivary retention cyst adjacent to the actinomycotic abscess.²

Dermatofibroma with Cholesterol Deposits in a Patient With HIV Infection

B. Monteagudo, M. Ginarte, Ó. Suárez-Amor, and J. Toribio

Servicio de Dermatología, Facultad de Medicina, Complejo Hospitalario Universitario de Santiago de Compostela, La Coruña, Spain

To the Editor:

Dermatofibroma (DF), also called histiocytoma, cutaneous fibrous histiocytoma, nodular subepidermal fibrosis, or sclerosing hemangioma, is a very common, benign skin tumor of fibrohistiocytic origin. It presents as firm, single or multiple tumors that are usually hyperpigmented and less than 1 cm in diameter; they tend to appear on the lower limbs of young women. Histologically they are characterized by a poorly demarcated dermal nodule consisting of variable proportions of fibroblasts, young and mature collagen, capillaries, and histiocytes. Treatment is by surgical excision, although this is not usually necessary. The debate continues as to whether this is a neoplastic disorder or if it is actually a reactive proliferation of fibroblasts secondary to insect bites or minor trauma.¹

More than 40 clinical-pathologic variants of DF have been reported, classified according to their clinical presentation, structural and stromal features, or variations in their cellular make-up²; however, there are many other subvariants, given that 10% of all DFs are combined (simultaneous presence of 2 or more histopathological forms).³

The cholesterotic fibrous histiocytoma is a rare variant of DF described by Hunt et al⁴ in 1990. It consists of a lesion that is clinically identical to classic DF, but the diagnosis is based on the histopathological study,

Correspondence:
Juan Sánchez Estella
Plaza de Alemania 3, 3.º 1.ª Pta
49014 Zamora, Spain
jsancheze@meditex.es

Conflicts of Interest

The authors declare no conflicts of interest.

References

1. Kikiewicz D. A case of actinomycosis of the upper lip. *Czas Stomatol.* 1978;3:187-9.
2. Appiah-Anane S, Tickle M. Actinomycosis—an unusual presentation. *Br J Oral Maxillofac Surg.* 1995;33:248-9.
3. Lan MC, Huang TY, Lin TY, Lan MY. Pathology quiz case 1. Actinomycosis of the lip mimicking minor salivary gland tumor. *Arch Otolaryngol Head Neck Surg.* 2007;133:411-4.
4. Brook I. Actinomycosis: diagnosis and management. *South Med J.* 2008;101:1019-23.

which reveals cholesterol deposits within the lesion. Its appearance should suggest the possibility of an underlying hyperlipoproteinemia. We report a new case of DF with deposits of cholesterol crystals seen in a patient with human immunodeficiency virus (HIV) infection, with no associated dyslipidemia.

The patient was a 37-year-old man with a past history of hepatitis C virus and HIV infection; his most recent CD4 lymphocyte count was 600/ μ L, with an undetectable viral load. He was on combination antiretroviral therapy with didanosine, nelfinavir, and stavudine. There was no personal or family history of hypercholesterolemia or hypertriglyceridemia. He came to the dermatology department for evaluation of 3 lesions on the left foot, left lateral chest wall, and left elbow; the lesions had been present for less than a year. All were asymptomatic except for the one on the left elbow, which was tender to pressure. The patient reported no trauma or previous lesions in those areas.

On physical examination, 3 brownish tumors were observed on the left foot, left lateral chest wall, and left elbow. They had a smooth surface, were between 0.5 and 1 cm in diameter, were firm on palpation, and were not adherent to the deep planes (Figure 1). Lateral pressure produced a depression in the overlying skin (dimple sign).



Figure 1. Brownish tumor, 1 cm in diameter, situated on the left elbow.

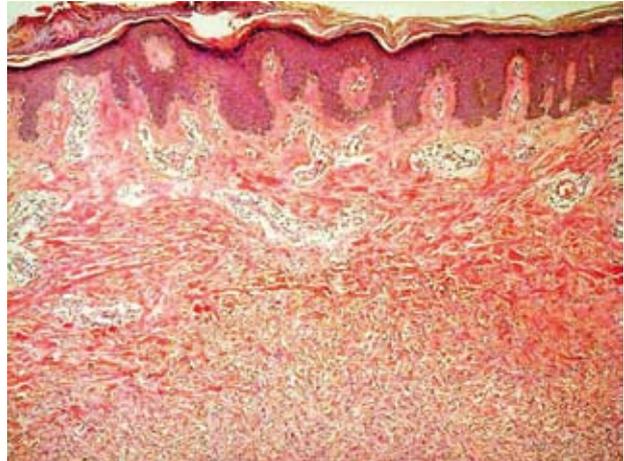


Figure 2. Histiocytes and abundant fibroblasts between thick bundles of collagen in the middle and deep dermis, respecting a thin superficial layer (hematoxylin-eosin, $\times 100$).

The patient also presented a lipodystrophic phenotype, with central adiposity and lipoatrophy of the face and limbs. There were no cutaneous manifestations of hyperlipoproteinemia.

With the clinical diagnosis of DF, the lesion on the left elbow was excised, and histopathological study revealed a poorly demarcated, symmetrical nodular proliferation formed of histiocytes and a marked proliferation of fibroblasts between thick bundles of collagen, which occupied the middle and deep dermis, respecting a thin superficial layer (Figure 2). Groups of biconvex, needle-shaped crystals of cholesterol were observed within the lesion (Figure 3). The overlying epidermis was acanthotic and papillomatous, with basal hyperpigmentation.

The other 2 lesions were excised later, and histopathological study confirmed their fibrohistiocytic origin, though deposits of cholesterol crystals were not seen. The complementary tests performed, including a complete blood count and biochemistry, only revealed hypertransaminasemia; the levels of cholesterol (214 mg/dL, reference range: 145-255 mg/dL) and triglycerides (115 mg/dL, reference range: 35-150 mg/dL) were normal.

The cholesterotic variant of DF is characterized by deposits of cholesterol crystals and is included among the DF with stromal peculiarities (together with those that present sclerosis, mucin, or hemosiderin). The first report was made by Hunt et al,⁴ who presented the case of a woman with a known history of hypercholesterolemia, with 2 lesions clinically suggestive of DF; histopathological study revealed cholesterol deposits within the lesions, surrounded by numerous histiocytes and foreign body-type giant cells. Those authors concluded that, as occurs with malignant fibrous histiocytoma,⁵ DFs are tumors

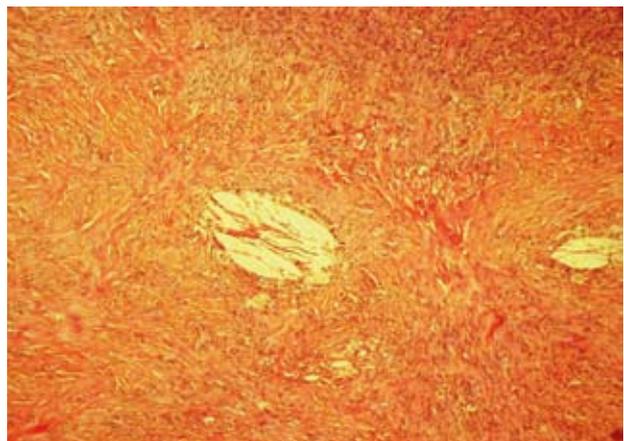


Figure 3. Deposits of groups of biconvex, needle-shaped cholesterol crystals can be seen in the middle and deep dermis, surrounded by histiocytes, with a proliferation of fibroblasts and thick bundles of collagen (hematoxylin-eosin, $\times 200$).

with histiocytic capacity, which may be expressed in the context of a hyperlipoproteinemia. This will give rise to xanthomatous changes and deposits of cholesterol similar those found in tuberous xanthomas and cholesterol granulomas. The finding of this variant of DF should alert doctors to the need to evaluate the patient's plasma lipid levels.⁴ The clinical and histological differential diagnosis includes dermatofibrosarcoma protuberans, tuberous xanthoma (including type II normolipemic cutaneous xanthomas, which are associated with lymphoproliferative disorders and with HIV infection),⁶ plexiform xanthomatous tumor,⁷ infectious diseases (atypical mycobacteriosis), erythema elevatum diutinum, Kaposi sarcoma, and lipidized dermatofibroma.⁸

We have not found reports of DF with cholesterol deposits in a patient with HIV infection in the literature. Interestingly, seropositive patients frequently present both DFs⁹ and dislipidemia,¹⁰ and we therefore consider that the association we describe here is not due to chance. The term multiple eruptive DF is used to define the appearance of 5 to 8 lesions within the space of 4 months. They usually occur in patients with autoimmune diseases, particularly systemic lupus erythematosus on treatment with immunosuppressant drugs, hematological tumors, organ transplant, immunodeficiencies (HIV), and patients with Down syndrome, but are also seen in healthy individuals. In some patients with HIV infection, the lesions develop after starting combination antiretroviral therapy.⁹ That treatment has been associated with a wide range of metabolic syndromes, such as peripheral lipodystrophy, dislipidemia, and insulin resistance. Dyslipidemias are common in the patients on antiretroviral treatment and present with different frequencies according to the drug used, and include isolated or combined elevations of the triglycerides and total cholesterol, with variable changes in the low and high density lipoproteins.^{6,10}

Correspondence:
Benigno Monteagudo Sánchez
C/Alegre, 83-85, 3.ªA
15401 Ferrol, La Coruña, Spain
benims@hotmail.com

Conflicts of Interest

The authors declare no conflicts of interest.

References

1. Zelger B, Zelger BG, Burgdorf WH. Dermatofibroma—a critical evaluation. *Int J Surg Pathol.* 2004;12:333-44.
2. Sánchez Yus E, Soria L, de Eusebio E, Requena L. Lichenoid, erosive and ulcerated dermatofibromas. Three additional clinico-pathologic variants. *J Cutan Pathol.* 2000;27:112-7.
3. Zelger BG, Sidoroff A, Zelger B. Combined dermatofibroma: co-existence of two or more variant patterns in a single lesion. *Histopathology.* 2000;36:529-39.
4. Hunt SJ, Santa Cruz DJ, Miller CW. Cholesterotic fibrous histiocytoma. Its association with hyperlipoproteinemia. *Arch Dermatol.* 1990;126:506-8.
5. Laskin WB, Conklin RC, Enzinger FM. Malignant fibrous histiocytoma associated with hyperlipoproteinemia. *Am J Surg Pathol.* 1988;12:727-32.
6. Brown CA, Leshner JL Jr, Peterson CM. Tuberos and tendinous xanthomata secondary to ritonavir-associated hyperlipidemia. *J Am Acad Dermatol.* 2005;52 5 Suppl 1:S86-9.
7. Michal M, Fanburg Smith JC. Plexiform xanthomatous tumor: a report of 20 cases in 12 patients. *Am J Surg Pathol.* 2002;26:1302-11.
8. Wagamon K, Somach SC, Bass J, Sigel JE, Xue W, Schluchter M, et al. Lipidized dermatofibromas and their relationship to serum lipids. *J Am Acad Dermatol.* 2006;54:494-8.
9. García Millán C, Aldanondo I, Fernández Lorente M, Carrillo R, Jaén P. Dermatofibromas eruptivos múltiples asociados al virus de la inmunodeficiencia humana. Presentación de dos casos. *Actas Dermosifiliogr.* 2007;98:702-6.
10. Masiá Canuto M, Bernal Morell E, Gutiérrez Rodero F. Alteraciones lipídicas y riesgo cardiovascular asociado a la terapia antirretroviral. *Enferm Infecc Microbiol Clin.* 2006;24:637-48.

Wedge Excision of the Pinna: How to Avoid a Notch in the Helical Border

B. García-García, L. Sempau-Díaz del Río, and M.Á. Rodríguez-Prieto

Servicio de Dermatología, Complejo Asistencial de León, León, Spain .

To the Editor:

The pinna is an anatomical structure with a high level of exposure to solar radiation; between 5% and 8% of all skin tumors occur here,¹ the most common being squamous cell carcinoma and basal cell carcinoma. Almost half of these tumors affect the helical rim.²

Although in a lateral location, the ears are prominent and symmetrical structures, so any defect is very visible from an esthetic point of view.³

Wedge excision is one of the most commonly used techniques to repair defects of up to a quarter of the circumference of the helix.¹ However, it is common for this type of surgical intervention to produce a notch in the free border of the auricle during the healing process.^{2,4}

In order to avoid this complication we propose a technique for reconstruction of the border of the auricle. Once the wedge shape of the area to be removed has been marked on to the ear (Figure 1), the free skin border on