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ORIGINAL ARTICLE

Dermatofibroma of the Face: A Clinicopathologic Study of 20 Cases☆

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KEYWORDS
Dermatofibroma;
Benign fibrous histiocytoma;
Facial neoplasms;
Connective tissue neoplasms

Abstract

Introduction: Dermatofibroma is one of the most common benign skin tumors. It typically develops on the lower limbs between the third and fifth decade of life and is more common in women. Clinical diagnosis is often straightforward. Dermatofibromas are associated with a very low rate of local recurrence following excision.

Objectives: To describe the clinical and histologic features of dermatofibroma of the face based on our experience.

Materials and methods: Descriptive retrospective study of the clinicopathologic features of dermatofibromas of the face diagnosed at the dermatology department of Hospital General Universitario de Valencia between 1990 and 2012.

Results: Twenty cases of dermatofibroma of the face (1.11% of all dermatofibromas diagnosed) were studied. The age at onset varied widely, from 28 to 84 years. The mean age at onset was 57.15 years and the median was 54 years. There were 11 women and 9 men. Mean follow-up was 83 months and there were no local recurrences. All the tumors were confined to the papillary and reticular dermis and the storiform pattern was the most common growth pattern observed.

Conclusions: This study of facial dermatofibromas diagnosed at our hospital over a period of 22 years suggests that the face is an uncommon site but that dermatofibromas in this location behave similarly to those occurring elsewhere on the body.

PALABRAS CLAVE
Dermatofibroma;
Histiocitoma fibroso benigno;
Neoplasias faciales;

Dermatofibromas faciales: estudio clínico-patológico de 20 casos

Resumen

Introducción: El dermatofibroma es uno de los tumores cutáneos benignos más frecuentes. Suele aparecer en las extremidades inferiores entre la tercera y la quinta décadas de la vida, siendo más frecuente en mujeres. El diagnóstico clínico frecuentemente es sencillo. Se asocia a una tasa muy baja de recidivas locales tras la extirpación.

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Neoplasias del tejido conectivo

Objetivos: Presentar nuestra experiencia en dermatofibromas de localización facial con el fin de discutir las características clínicas e histopatológicas en esta localización.
Material y métodos: Estudio retrospectivo descriptivo de las características clínico-patológicas de los dermatofibromas de localización facial diagnosticados en el Departamento de Dermatología del Hospital General Universitario de Valencia entre los años 1990 y 2012.
Resultados: Se incluyeron 20 casos de dermatofibromas de localización facial (1,11% de los diagnosticados en todas las localizaciones). Estas lesiones mostraron un amplio rango de edad de aparición, que osciló de 28 a 84 años, con una media de 57,15 años y una mediana de 54 años. La distribución por sexo fue de 11 mujeres y 9 hombres. El promedio de seguimiento fue de 83 meses, con ninguna recurrencia local. Todos los casos estaban confinados en la dermis papilar y reticular, y el patrón de crecimiento predominante fue el estoriforme.
Conclusiones: El estudio de los dermatofibromas de localización facial observados en nuestro centro en un período de 22 años sugiere que esta es una localización infrecuente, pero que en la mayoría de los casos tiene un comportamiento similar al de otras localizaciones.

Introduction

Dermatofibroma, also known as benign fibrous histiocytoma, is one of the most common benign skin tumors. It typically develops on the lower limbs between the third and fifth decade of life, but it can occur at any age. It is more common in women. The tumor presents as a hard, asymptomatic, slow-growing papule or nodule varying in color from a reddish-brown to a violaceous blue. Clinical diagnosis is generally straightforward. Dermatofibroma is associated with a very low rate of local recurrence after excision and metastasis is rare. Several morphologic variants have been reported in the literature, including atrophic dermatofibroma,[1] pseudosarcomatous dermatofibroma,[2] granular cell dermatofibroma,[3] clear cell dermatofibroma,[4] epithelioid fibrous histiocytoma,[5] dermatofibroma with smooth-muscle proliferation,[6] dermatofibroma with myofibroblastic proliferation,[7] and palisading cutaneous fibrous histiocytoma.[8] Certain histologic variants (cellular,[9] aneurysmal,[10] and pseudosarcomatous[11]) are associated with a high rate of local recurrence and, in very rare cases, metastasis.

In recent years there have been reports of dermatofibromas of the face that tend to involve deeper structures and have a higher rate of local recurrence than dermatofibromas on the lower limbs; the observations have prompted the recommendation that dermatofibromas of the face should be excised with wider surgical margins.[12] The aim of the present study was to describe the clinical and histopathologic features of dermatofibroma of the face based on our experience.

Material and Methods

We studied all cases of dermatofibroma diagnosed at the dermatology department of Hospital General Universitario de Valencia in Valencia, Spain between 1990 and 2012 and selected those located on the face. We made a note of the clinical diagnosis mentioned on the biopsy request form, as well as the patient's age and sex and the exact location of the tumor. In all cases, the tissue was fixed in 4% buffered formalin and embedded in paraffin. Sections measuring 4 μm were cut and stained with hematoxylin and eosin. In equivocal cases, paraffin blocks were sectioned for immunohistochemical staining with CD34 (prediluted, qbend/1, Leica Microsystems), S-100 protein (prediluted, Leica Microsystems), and factor XIIIa (Clone E980.1, Leica Microsystems). Appropriate positive and negative controls were included in each run. The mean number of mitotic figures per 10 high-power fields (1 high-power field = 0.159 mm^2 on the microscope used) was calculated in each case.

Results

The clinical characteristics of the patients are summarized in Table 1. The age of the patients (11 women and 9 men; ratio, 1.22:1) at the time of diagnosis ranged from 28 to 84 years (mean, 57.15 years; median, 54 years). Seven of the 20 dermatofibromas were located on the forehead, 5

Table 1 Clinical Findings in 20 Cases of Dermatofibroma of the Face.

Patient	Age, y	Sex	Tumor Site	Follow-up, mo
1	54	F	Forehead	51
2	33	F	Ear	57
3	32	F	Nose	68
4	28	M	Forehead	78
5	62	M	Forehead	78
6	49	M	Nose	84
7	60	F	Cheek	97
8	49	F	Chin	139
9	69	M	Cheek	NA
10	74	F	Periorbital region	NA
11	45	F	Chin	NA
12	70	F	Cheek	NA
13	80	F	Cheek	NA
14	52	F	Cheek	NA
15	84	F	Nose	NA
16	53	M	Forehead	NA
17	54	M	Forehead	NA
18	54	M	Forehead	NA
19	82	M	Nose	NA
20	56	M	Forehead	102

Abbreviations: F, female; M, male; NA, not available.