

Multiple Facial Nodules in an Elderly Woman

An 87-year-old woman presented to the Department of Dermatology due to asymptomatic nodules over the left side of her face. The lesions appeared 7 years ago, and showed progressive growth in the number and size during this period. No systemic symptoms were associated. On examination, she presented multiple violaceous and nonulcerated nodules and plaques, in the preauricular, malar, and mandibular area [Figure 1]. Moreover, the anterior region of the neck was infiltrated. Lymphadenopathies and organomegalies were not present. Biopsy of a nodule revealed a dense lymphocytic infiltrate of the dermis with Grenz zone [Figure 2a]. This infiltrate had a mostly diffuse pattern and was composed of atypical, medium-sized, and focally large atypical lymphocytes, centrocytes, and centroblasts, respectively [Figure 2b and c]. The immunohistochemical

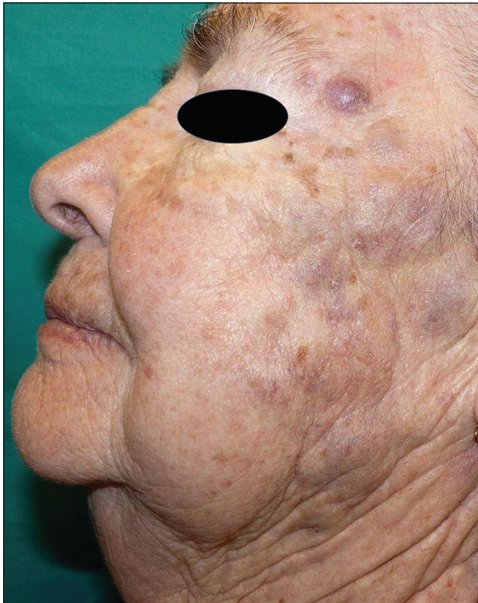


Figure 1: Multiple violaceous nodules and plaques over the left side of the face. The anterior area of neck was infiltrated at palpation

staining demonstrated neoplastic lymphocytes positive for CD20 [Figure 3a], CD79 α , and BCL-6 [Figure 3b], and negative for BCL-2, CD-10, MUM-1, CD-5, CD23, and cyclin D1, with an accompanying infiltrate of CD3-positive T lymphocytes. Ki-67 expression was low (<10%). Laboratory tests showed normal blood cell count, biochemistry, electrophoresis, immunoglobulins, and beta2-microglobulin; serologies for HIV, hepatitis virus, and *Borrelia* were negative. A fluorodeoxyglucose-positron emission tomography revealed uptake in the left side of the face and anterior area of the neck; bone marrow biopsy/aspirate showed no abnormalities.

Question

What is your diagnosis?

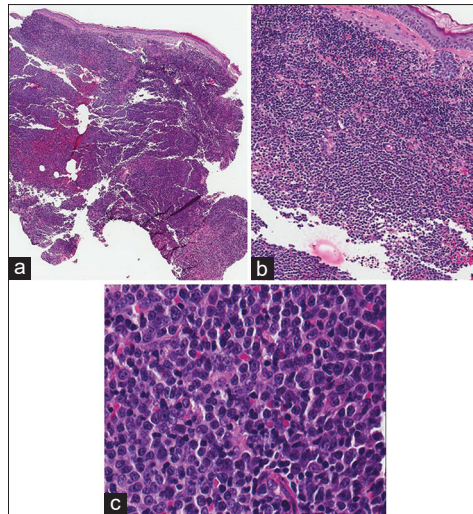


Figure 2: Low-power magnification: a dense lymphocytic infiltrate affecting the dermis, mostly with diffuse pattern (hematoxylin–eosin $\times 4$) (a); a closer view (hematoxylin–eosin $\times 20$) (b). High-power magnification: infiltrate composed of small lymphocytes intermixed with centrocytes with cleaved nuclei and some centroblasts (hematoxylin–eosin $\times 40$) (c)

**Mónica García-Arpa,
Lucía
González-Ruiz,
Fernanda
Relea-Calatayud¹,
María Rogel-Vence**

*Departments of Dermatology
and ¹Pathology, Hospital
General Universitario
de Ciudad Real, Spain*

Address for correspondence:
Dr. Mónica García-Arpa,
Department of Dermatology,
Hospital General Universitario
de Ciudad Real, Ciudad Real,
Avda. Obispo Torija S/n. 13005,
Spain.
E-mail: mgarciaa73@yahoo.es

Access this article online

Website: www.idoj.in

DOI: 10.4103/idoj.IDOJ_439_18

Quick Response Code:



This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Howto cite this article: García-Arpa M, González-Ruiz L, Relea-Calatayud F, Rogel-Vence M. Multiple facial nodules in an elderly woman. Indian Dermatol Online J 2020;11:466-8.

Received: 21-Nov-2018. Revised: 28-Dec-2018.

Accepted: 31-Jan-2019. Published: 10-May-2020.

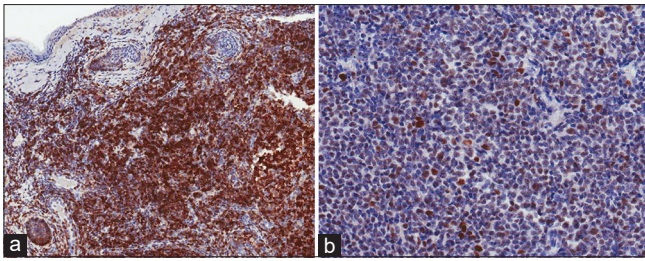


Figure 3: Immunohistochemical staining for CD20 showing diffusely positive reaction in neoplastic lymphocytes (x20) (a) and BCL-6 (40x) (b)

Answer

Diagnosis

Primary cutaneous follicle center lymphoma (PCFCL). The patient refused any treatment.

PCFCL is the most common primary cutaneous B-cell lymphoma, representing about 55% of cases^[1,2] and originating from B cells in the germinal centers of lymphoid follicles. It has a predilection for adult males with an average age of 60 years. It usually presents with firm reddish nodules or plaques, located on the head and neck, particularly scalp. However, atypical manifestations have been described, and differential diagnosis includes cysts, sarcoidosis, lupus, pseudolymphoma, and cutaneous malignancies. Furthermore, in this case, other uncommon entities presenting as violaceous facial nodules and plaques should be considered. Granuloma faciale is a benign chronic dermatosis characterized by reddish-brown to violaceous asymptomatic single or multiple plaques or nodules located primarily on face. It is usually seen in middle-aged adults mainly males. Histopathology shows a dermal mixed inflammatory infiltrate predominantly of neutrophils and eosinophils with small vessel vasculitis. Angiolymphoid hyperplasia with eosinophilia is a benign vascular disease most commonly in young to middle-aged adults with higher incidence in females. Biopsy reveals an abnormal vascular proliferation and diffuse lymphocytic infiltrates with eosinophils. Kimura's disease is a chronic inflammatory disorder, clinically and histologically overlapped with angiolymphoid hyperplasia with eosinophilia. It is endemic in Asia with a young male predominance. The typical presentation is characterized by painless, subcutaneous nodules, predominantly in the head and neck associated with lymphadenopathies, eosinophilia, and elevated IgE. Rosai–Dorfman disease is a non-Langerhans histiocytosis that may be limited to the skin presenting as single or multiple yellow-red, brown, or purple papules, nodules, and/or plaques, especially over the face. Histology reveals a dermal infiltrate of large polygonal histiocytes showing emperipolesis, admixed with lymphocytes and plasma cells. Moreover, benign vascular lesions could be included in the differential diagnosis, but other disorders such as angiosarcoma, Merkel cell carcinoma, cutaneous leukemic infiltrates, metastasis, or infections are very unlikely because of the long clinical course.

Histologically, PCFCL presents as a dermal and subcutaneous proliferation composed of a combination of centrocytes and centroblasts. Large centrocytes are characteristic of PCFCL, and small reactive T lymphocytes are mostly intertwined with tumor cells. Architectural pattern is variable along a continuum from follicular, nodular, diffuse growth patterns, and a combination thereof. However, these growth patterns do not differ in prognosis. Neoplastic B lymphocytes are CD19+, CD20+, CD22+, CD79a+, CD5-, CD23+/-, CD43+, BCL-6+, and MUM-1-, with clonal rearrangement of IGH genes. The expression of CD10 is variable, which is positive predominantly in PCFCL with follicular growth pattern and uncommonly in the diffuse one. Expression of BCL2 is also variable, being observed in less than half of the cases and correlating with the presence of t(14;18) that it characteristic of systemic follicular lymphomas and part of systemic diffuse large B cell lymphomas. Other markers such as CD5, CD23, and cyclinD1 are useful for diagnosis and help rule out cutaneous involvement due to other B-cell lymphoproliferative disorders. Among them, skin involvement by Mantle cell lymphoma is rare. The atypical lymphocytes are positive for CD20, CD5, CD43, and cyclin D1, but negative for CD10 and CD23. In cutaneous infiltrates by B-cell chronic lymphocytic leukemia, lymphocytes are CD5-, CD23-, and CD200-positive and cyclin-D1-negative.^[1]

Similar to other cutaneous lymphomas, it is essential to perform a complete evaluation to rule out secondary skin involvement by systemic lymphoma. Exceptionally, PCFCL may be associated with other cutaneous lymphomas,^[3] aggressive systemic lymphomas,^[4] and in the setting of hematologic diseases.^[5]

The 5-year survival rate is over 95% with common skin relapses, but infiltration of lymph nodes or internal organs is exceptional. Treatment depends on the location and number of lesions. For single lesions, the first choice is surgery or radiotherapy. Intravenous and local rituximab is another alternative as first option and for relapses; it can be combined with chemotherapy in generalized skin disease and extracutaneous lymphoma. Systemic and intralesional interferon- α alone or in combination with other treatments can also be used.^[1,2]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Lima M. Cutaneous primary B-cell lymphomas: From diagnosis to treatment. *An Bras Dermatol* 2015;90:687-706.
2. Costa EPW, Lucena BD, Amin GA, Bittencourt MJS, Dias LB Jr, Pires CAA. Primary cutaneous follicle center lymphoma. *An Bras Dermatol* 2017;92:701-3.
3. Cho-Vega JH, Tschen JA, Vega F. CD4/CD8 double-negative early-stage mycosis fungoides associated with primary cutaneous follicular center lymphoma. *J Am Acad Dermatol* 2011;65:884-6.
4. van Tuyll van Serooskerken AM, Mosterd K, Veraart JC, Vermeer MH, Frank J, van Marion AM. Coincidence of cutaneous follicle center lymphoma and diffuse large B-cell lymphoma. *Int J Dermatol* 2008;47(Suppl 1):21-4.
5. Konda S, Beckford A, Demierre MF, Mahalingam M. Primary cutaneous follicle center lymphoma in the setting of chronic lymphocytic leukemia. *Indian J Dermatol Venereol Leprol* 2011;77:314-7.