tance among GPACs range from 7% to 20%, but are increasing in certain species, including *F magna* and *Peptoniphilus* species.[7] Most GPACs are still susceptible to metronidazole, although some metronidazole-resistant strains of *F magna* and *Parvimonas micra* have been described.[9]

The present case illustrates how the commensal bacterium *F magna* is capable of producing an advanced necrotizing infection, and underscores the importance of species-level identification and determination of the antimicrobial sensitivity of anaerobic bacteria from representative samples when isolated in pure cultures.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

1. Brook I, Wexler HM, Goldstein EJC. Antianaerobic antimicrobials: spectrum and susceptibility testing. Clin Microbiol Rev. 2013;26:526–46, http://dx.doi.org/10.1128/CMR.00086-12.
2. Frick I-M, Karlsson C, Mörgelin M, Olin AI, Janjusevic R, Hammarström C, et al. Identification of a novel protein promoting the colonization and survival of Finegoldia magna, a bacterial commensal and opportunistic pathogen. Mol Microbiol. 2008;70:695–708, http://dx.doi.org/10.1111/j.1365-2958.2008.06439.x.
3. Murdoch DA. Gram-positive anaerobic cocci. Clin Microbiol Rev. 1998;11:81–120, http://dx.doi.org/10.1128/CMR.11.1.81.
4. Karlsson C, Andersson M-L, Collin M, Schmidtchen A, Björck L, Frick I-M. SufA—a novel subtilisin-like serine proteinase of Finegoldia magna. Microbiol Read Engl. 2007;153:4208–18, http://dx.doi.org/10.1099/mic.0.2007/010322-0.
5. Murphy EC, Mörgelin M, Reinhardt DP, Olin AI, Björck L, Frick I-M. Identification of molecular mechanisms used by Finegoldia magna to penetrate and colonize human skin. Mol Microbiol. 2014;94:403–17, http://dx.doi.org/10.1111/mmi.12773.
6. Sedano Gómez GE, Pérez de Llano LA, Pita Carretero J. Necrotising pneumonia due to Finegoldia magna. Arch Bronconeumol. 2011;47:54–5, http://dx.doi.org/10.1016/j.arbres.2010.09.007.
7. Schuetz AN. Antimicrobial resistance and susceptibility testing of anaerobic bacteria. Clin Infect Dis Off Publ Infect Dis Soc Am. 2014;59:698–705, http://dx.doi.org/10.1093/cid/ciu395.
8. Wybo I, Van den Bossche D, Soetens O, Vekens E, Vandoorslaer K, Claeys G, et al. Fourth Belgian multicentre survey of antibiotic susceptibility of anaerobic bacteria. J Antimicrob Chemother. 2014;69:155–61, http://dx.doi.org/10.1093/jac/dkt344.
9. Veloo ACM, Welling GW, Degener JE. Antimicrobial susceptibility of clinically relevant Gram-positive anaerobic cocci collected over a three-year period in the Netherlands. Antimicrob Agents Chemother. 2011;55:1199–203, http://dx.doi.org/10.1128/AAC.01771-09.
10. Veloo ACM, van Winkelhoff AJ. Antibiotic susceptibility profiles of anaerobic pathogens in The Netherlands. Anaerobe. 2015;31:19–24, http://dx.doi.org/10.1016/j.anaerobe.2014.08.011.

B. Arencibia-Pérez*, O. Benet-Muñoz, C. Roque-Castellano, J. Marchena-Gómez

Servicio de Cirugía General y del Aparato Digestivo, Hospital Universitario de Gran Canaria Dr. Negrín, Las Palmas, Spain

* Corresponding author.
E-mail address: bearenci@gmail.com (B. Arencibia-Pérez).

https://doi.org/10.1016/j.adengl.2018.12.017

Infiltración neoplásica cutánea por un linfoma linfoplasmocítico en una paciente con macroglobulinemia de Waldenström☆

Neoplastic Cutaneous Infiltration by Lymphoplasmacytic Lymphoma in a Patient with Waldenström's Macroglobulinemia

To the Editor:

We report the case of a 62-year-old Caucasian female, with an 8-year history of Waldenström's macroglobulinemia (WM), under treatment with cyclophosphamide and prednisone, and a 1-year history of stage IV colon adenocarcinoma. The patient was referred to our Dermatology Department due to the recent occurrence of ill-defined, erythematous, infiltrated patches on the extensor surface of both arms, painful upon palpation (Fig. 1). She had no history of previous dermatological disorders and no triggering factors were identified. Cachexia and hepatosplenomegaly were also apparent, but the rest of the physical examination was unremarkable. Laboratory results showed a normocytic, normochromic anemia (hemoglobin 9.1 × 10 g/L), hypoalbuminemia (25.8 g/L), high levels of serum immunoglobulin M (IgM; 70.50 g/L) and of several tumor markers, namely cancer antigen (CA) 125, CA 19−9, CA 72−4 and carcinoembryonic antigen (CEA).

As the clinical findings were non-specific, we performed a deep skin biopsy of one lesion. The histopathological examination showed a diffuse, dense dermal and subcutaneous infiltration of small lymphocytes, lymphoplasmacytoid cells and plasma cells, staining positive for CD20, CD79a, CD138 and IgM, with *kappa* light chain restriction (Fig. 2), and negative for several T-cell markers, namely CD3, CD4 and CD8. These findings confirmed the diagnosis of specific skin

☆ Please cite this article as: Valejo Coelho M.M., João A., Rocha Páris F. Infiltración neoplásica cutánea por un linfoma linfoplasmocítico en una paciente con macroglobulinemia de Waldenström. Actas Dermosifiliogr. 2020;111:528–531.

Fig. 1 Clinical presentation: Ill-defined, erythematous, infiltrated patches on the extensor surface of the patient's right (a) and left (b) arms, which were painful upon palpation.

infiltration by WM (lymphoplasmacytic lymphoma). Another scheme of systemic therapy directed to WM (bortezomib and dexamethasone) was started, together with topical clobetasol propionate on the skin lesions for local symptomatic relief, without significant clinical improvement, however. The progression of two concurrent advanced oncological diseases – colon cancer and WM – led to a rapidly progressive clinical deterioration that culminated in the patient's death few months later.

WM is a lymphoproliferative disease, characterized by clonal proliferation of lymphoplasmacytoid cells producing a monoclonal IgM protein.[1–3] A broad spectrum of cutaneous disorders has been associated with this monoclonal gammopathy, including non-neoplastic and neoplastic skin manifestations,[1–3] which occur in only approximately 5% of the patients with WM.[3] These can be due to several pathogenic mechanisms, namely: 1) specific cutaneous infiltration by neoplastic cells or deposition of their cellular products, particularly monoclonal IgM (''macroglobulinemia cutis''); 2) secondary to paraproteinemia, including mucocutaneous manifestations of hyperviscosity, cryoglobulinemia or autoimmune phenomena; 3) miscellaneous manifestations of uncertain etiology, as urticaria and amyloid light-chain (AL) amyloidosis.[1–3]

Specific infiltration of the skin by proliferating lymphoplasmacytoid neoplastic cells is, in fact, the rarest cutaneous manifestation of WM, with only few similar cases having been reported to date, but it should be considered in the differential diagnosis of asymptomatic or symptomatic, infiltrated skin lesions in these patients.[1–6] Histopathological examination of skin specimens with immunoperoxidase stains is key in establishing the correct diagnosis.[2] These lesions result from skin infiltration by malignant cells, and treatment should therefore target the underlying hematological malignancy,[1] although clinical responses have been inconsistent.[2] Interestingly, the presence of cutaneous involvement does not appear to be clearly related with disease course and progression, according to the available literature.[2] Nevertheless, further research is warranted.

We report this clinical case to draw attention to an uncommon dermatological expression of a systemic hematologic malignancy and the importance of considering such possibility in appropriate clinical settings.

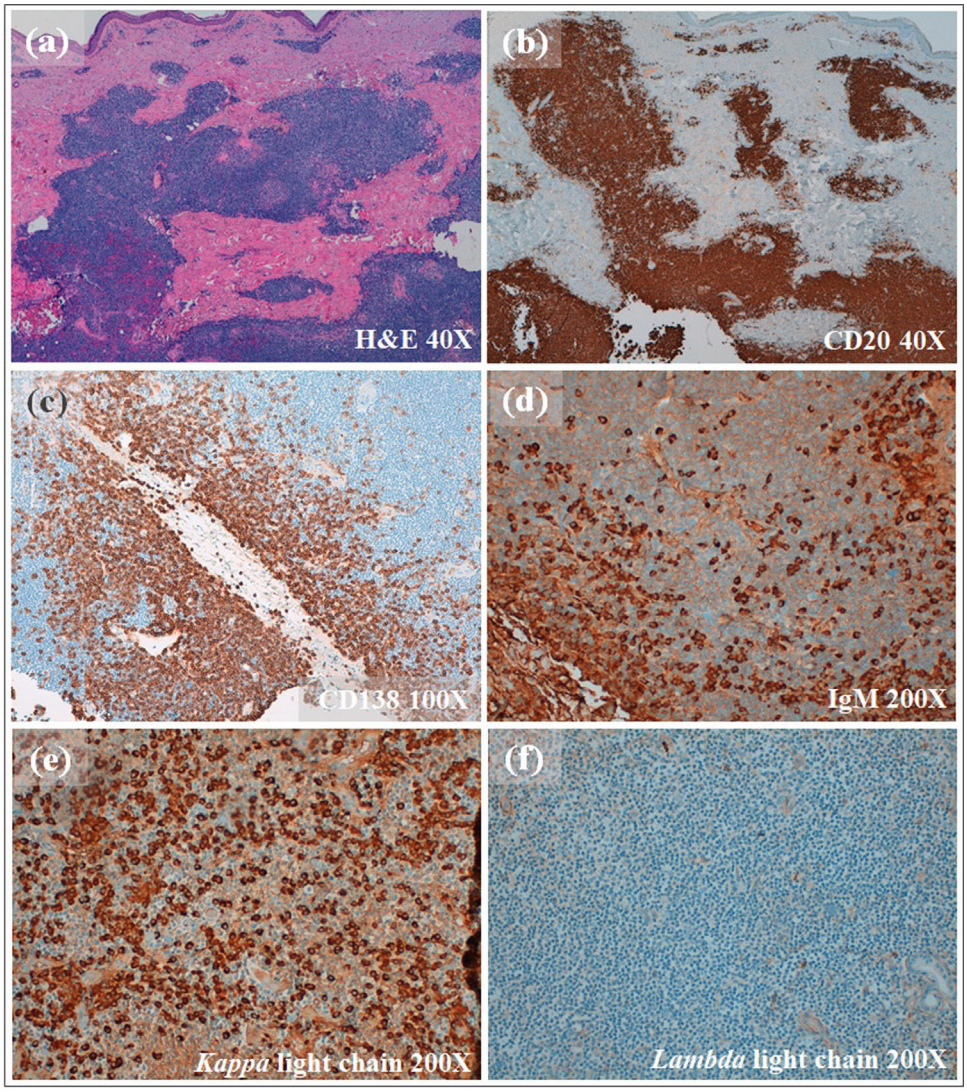

Fig. 2 Histopathological findings in skin lesion biopsy: Presence of a diffuse, dense dermal and subcutaneous infiltration (a) by small lymphocytes, lymphoplasmacytoid cells, and plasma cells, staining positive for CD20 (b), CD138 (c) and IgM (d), with *kappa* light chain restriction (e, f), confirming neoplastic cutaneous involvement by Waldenström's macroglobulinemia.

References

1. Daoud MS, Lust JA, Kyle RA, Pittelkow MR. Monoclonal gammopathies and associated skin disorders. J Am Acad Dermatol. 1999;40:507–35.
2. Libow LF, Mawhinney JP, Bessinger GT. Cutaneous Waldenström's macroglobulinemia: Report of a case and overview of the spectrum of cutaneous disease. J Am Acad Dermatol. 2001;45: S202–6.
3. del Olmo J, España A, Idoate MA, Panizo C. Waldenström Macroglobulinemia Associated With Cutaneous Lesions and Type I Cryoglobulinemia. Actas Dermosifiliogr. 2008;99: 138–44.
4. Mascaro JM, Montserrat E, Estrach Feliu E, Ferrando D, Castel T, et al. Specific cutaneous manifestations of Waldenström's macroglobulinemia. A report of two cases. Br J Dermatol. 1982;106:217–22.
5. Mozzanica N, Finzi AF, Facchetti G, Villa ML. Macular skin lesion and monoclonal lymphoplasmacytoid infiltrates. Occurrence in primary Waldenström's macroglobulinemia. Arch Dermatol. 1984;120:778–81.
6. Abdallah-Lotf M, Bourgeois-Droin C, Perrone V, Fouchard N, Michel S, Launay-Russ E, et al. Cutaneous manifestations as initial presentation of Waldenstrom's macroglobulinemia. Eur J Dermatol. 2003;13:90–2.

Margarida Moura Valejo Coelho*, Alexandre João, Filipa Rocha Páris

Servicio de Dermatología y Venereología, Centro Hospitalar Universitário de Lisboa Central, Alameda de Santo António dos Capuchos, 1169-050 Lisbon, Portugal

* Corresponding author.
E-mail address: margarida.m.v.coelho@chlc.min-saude.pt (M.M. Valejo Coelho).

8 April 2018 19 September 2018

https://doi.org/10.1016/j.adengl.2020.07.001

Skin Cancer and UV Literacy - Outdoor Workers Study☆

Cáncer de piel y alfabetización sobre UV: Estudio en trabajadores al aire libre

Dear Editor:

UV radiation is the main preventable cause of skin cancer, and outdoor workers are a high-risk group.[1–3] Skin cancer induced by UV radiation is a recognized occupational disease, but preventive measures for outdoor workers are rare in the construction sector.[4]

We performed a cross-sectional study to analyze sun exposure behaviors and skin cancer and UV radiation literacy among workers with different levels of education at an outdoor construction site. After reviewing the relevant literature,[5] we designed a questionnaire consisting of 23 questions to collect information on demographic, constitutional, and socioeconomic factors, sun exposure behaviors, and knowledge about skin cancer and UV radiation. Level of education was classified as primary (4-6 six years of schooling), secondary (9-10 years), or university (degree). We created contingency tables and analyzed associations using the X^2 test of independence. Statistical significance was set at a P level of less than .05.

All the construction workers (n = 95) completed the questionnaire; they had a mean age of 42 years and 88% were men.

Workers with a primary education were more likely to work outdoors (97% vs. 64%, $P < .001$) and to have experienced sunburn during work (36% vs. 13%, $P < .001$). They were less likely to be screened for skin cancer (10% vs. 28%, $P = .024$).

Most workers, regardless of their level of education, did not associate actinic keratosis with a risk of skin cancer. Workers with a university degree were largely aware that a high index of UV did not necessarily mean high temperatures (95% vs. 44%, p < .001), but only half knew what the UV index scale was (Table 1). These rates, however, are higher than those reported elsewhere.[6]

Despite its limitations (self-reported data from a single construction site), our study offers some interesting results. Construction workers with a primary or secondary education have low levels of skin cancer and UV literacy, were more likely to be exposed to sun at work, and were less likely to screened for skin cancer. Only 19% of all workers surveyed had a history of sunburn at work; 40%, by contrast, reported having been burnt during leisure time. There were no significant differences between the groups in terms of sun exposure during leisure time, but, in agreement with reports elsewhere,[7] sunburn while doing leisure activities was more common among workers with a university education.

Organizational measures such as scheduling outdoor work during times of the day with a low UV index or providing shade are often not possible in the construction industry. In the interest of occupational safety, it should be obligatory to implement standard sun protection measures and screening programs for workers chronically exposed to UV radiation.

Outdoor workers, and particularly those with a primary school education only, have poor sun exposure habits and low skin cancer literacy.[8] Construction companies should target this group of workers, as their protection is an investment opportunity with high returns: improved health, less absenteeism, and lower disease-associated costs.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Funding

The authors would like to thank the Portuguese Skin Cancer Association, its president Dr. António Picoto, and Orquídea Ribeiro for performing the statistical analysis.

☆ Please cite this article as: Duarte AF, Mota I, Campo M, Correia O. Cáncer de piel y alfabetización sobre UV: Estudio en trabajadores al aire libre. Actas Dermosifiliogr. 2020;111:531–533.