

Medical Imagery

Spontaneous Regression of Diffuse Large B-Cell Lymphoma, Leg Type, with Concomitant c-MYC and BCL2 Gene Rearrangements

Angela Ayen-Rodriguez^{a,b}, Ricardo Ruiz-Villaverde^{a,b*}

^a Dermatology Unit, Hospital Universitario San Cecilio. Granada, Spain, ^b Instituto biosanitario de Granada, Ibs, Granada, Spain

ARTICLE INFO

Accepted 8 February 2021

Keywords:

cutaneous lymphoma,
pathology

An 86-years-old man was referred to our service with a 4-months history of asymptomatic lesions on his left leg. Physical examination revealed an extensive, irregular, red-to-purple tumour on the medial side of his left leg (Figure 1A). In addition other red nodules were present on the rest of the left leg and two others on the right. He did not present any palpable node. Initial laboratory evaluation was significant for elevated lactate dehydrogenase and β_2 -microglobulin, with serum monoclonal IgG kappa. Whole-body computed tomography revealed a solid mass infiltrating the left posterior pararenal space, and thickening of the gastric wall and duodenum. Panendoscopy exam for exclude gastric lymphoma was performed within negative results.

Histological examination showed a diffuse infiltrate of centroblasts and immunoblasts into the dermis (Figure 2A). Immunohistochemical study showed positivity for CD-20 and CD-79, CD-10 was negative. Fluorescent in-situ hybridization (FISH) analysis showed a *C-MYC* (Figure 2B) and *BCL-2* translocation (Figure 2C). The patient was reevaluated 20 days after the first biopsy. A complete reduction in size and infiltration of the tumor area was observed, with the practically disappearance of the rest of the lesions (Figure 1B). A second biopsy was taken, revealing an important immune regression mediated by a marked CD8+ T-cell infiltrate.

Primary cutaneous large B-cell lymphoma, leg type (PCLBCL-LT) represented approximately 20% of all cutaneous B-cell lymphomas.¹ PCLBCL-LT typically presents at a median age of late seventies, with a slight female predominance. It has a more aggressive nature than other type of primary cutaneous B cell lymphomas (PCLBCL), with poor prognosis due to frequent dissemination to lymph nodes and visceral organs. Regression of aggressive lymphoma is rare, although in literature there are reported cases in patients with extranodal natural killer (NK)/T-cell lymphoma² or CD30-positive anaplastic large T-cell lymphoma. In PCLBCL-LT spontaneous regression is uncommon, and there are only 5 reported cases.³ All reported cases



Figure 1. A. Erythematous-violaceous patches and nodules on left leg. B. Partial clinical regression after skin biopsy in 3 weeks.

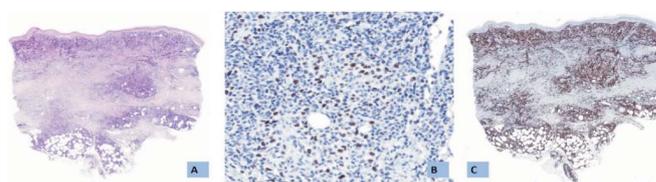


Figure 2. Sample obtained from left leg. A. Hematoxylin-eosine $\times 1$: Dense infiltrate that affects the dermis and hypodermis. B. c-MYC $\times 40$: Expression of MYC protein in tumor cells. C. Bcl-2 $\times 1$: Fuzzy expression for BCL-2.

showed a similar T cell infiltrate in the performed biopsy after regression process, suggesting that an immune response against tumour cells after traumatic events or viral infections may play an important role.

Author's contribution

RRV, AAR, Acquisition of data, Editing.
RRV, AAR, Study concept and Design, Writing, Editing.
RRV, AAR, Design, Critical Review.

* Corresponding author. Hospital Universitario San Cecilio, Avda. Conocimiento 33 18016, Granada, Spain.

E-mail address: ismenios@hotmail.com (R. Ruiz Villaverde)

Conflict of interest

The authors have no conflict of interest to declare and no prior presentation.

Funding sources

None.

Financial disclosure

None reported.

References

1. Willemze R, Cerroni L, Kempf W, et al. The 2018 update of the WHO-EORTC classification for primary cutaneous lymphomas. *Blood*. 2019; 133:1703–1714.
2. Isobe Y, Aritaka N, Sasaki M, et al. Spontaneous regression of natural killer cell lymphoma. *J Clin Pathol*. 2009;62:647–650.
3. Alcántara-González J, González-García C, Fernández-Guarino M, et al. Spontaneous regression of primary diffuse large B-cell lymphoma, leg type. *Actas Dermosifiliogr*. 2014;105:78–83.