

EDITORIAL

Multiple myeloma in Latin America: Are we moving at the same pace as other regions?

Mieloma múltiple en Latinoamérica: ¿Avanzamos al mismo paso que otras regiones?

Multiple myeloma (MM) is a plasma cell disorder that has recently experienced a dramatic improvement in clinical outcomes mainly due to the advent of novel drugs and the implementation of better supportive care strategies (1). Recently available combinations of proteasome inhibitors (PIs), immunomodulators (IMiDs), and monoclonal antibodies like daratumumab and isatuximab are shifting the MM therapeutic landscape (2-4). Nonetheless, MM still remains incurable, with an estimated 5-year survival of 55% and an estimated death rate of 2% in 2021 (% of all cancer deaths) (5).

In Latin America (LATAM), the Hemato-Oncology Latin America (HOLA) study was recently designed to evaluate the epidemiology of hematologic malignancies in the real-world setting (6). In some countries from LATAM, stage III MM was the most frequently observed disease stage, with Mexico (62.5%), Chile (60.0%), Brazil (49.3%), and Colombia (45.8%) being the regions where MM patients presented with a more advanced stage. This is in contrast with the original report of revised staging criteria, where stage III MM represented 22% of the cases (7). In the entire cohort of the HOLA study, 497 patients with MM (32.7%) underwent autologous stem-cell transplantation (ASCT); however, the proportion of patients submitted to ASCT varied among countries, ranging from 3% to 69%. The 497 patients who underwent ASCT had received induction chemotherapy predominantly based on thalidomide (151; 30.4%) and bortezomib (125; 25.2%) regimens. This is quite different when compared to countries like Canada, where in a recent study by Mian *et al.* (8), a total of 5,154 patients with MM were identified, among which 3,030 patients (58.8%) received an upfront ASCT and 2,124 (41.2%) did not. Bortezomib and lenalidomide were the most frequently used agents (>50%) in first- and second-line treatment,

respectively, in both the ASCT and non-ASCT cohorts. In Colombia, Abello *et al.* (9) reported on the outcomes of 890 patients with MM from a real-world registry. Most patients in this group received bortezomib and thalidomide-based therapies with a 65% response rate for CyBorD (cyclophosphamide, bortezomib, and dexamethasone) and 79% for VTD (bortezomib, thalidomide, and dexamethasone), which is in contrast with 78.1-84.3% and 85-94% reported in other series treated with similar regimens (10-12).

With the advent of monoclonal antibodies and more innovative strategies such as bispecific and CAR-T cell therapies, the field of myeloma treatment is rapidly evolving (13,14). We are gladly impressed with the high response rates and survival outcomes of these strategies. However, the excitement stemming from these results has to be weighed up against their financial impact, which constitutes their most iconic blueprint (15). Their soaring and, in particular, upfront costs are anticipated to represent a major financial hurdle for many healthcare systems worldwide. In LATAM, practical recommendations have been made to improve MM care (16). However, significant efforts at the national health system level are urgently required in our countries to offer our vast majority of MM patients a real opportunity to improve their lives (16,17).

As of 2018, daratumumab—an anti-CD38 monoclonal antibody—had been approved for MM in some LATAM countries (in four countries only in the setting of relapsed/refractory MM); however, access is limited due to reimbursement and local policies (17). Of note, patients with MM treated at public institutions in Mexico and other LATAM countries were more likely to be diagnosed with advanced-stage disease and have poorer outcomes than those treated at private

centers (18,19). As such, a great effort is needed in these countries to try to reduce the existing disparities between public and private institutions. Increased access to new treatments is necessary to improve patient care and promote better survival outcomes in this region (16).

Further, treatment access is not the only major challenge when dealing with MM patients in LATAM. A recent internet-based questionnaire of regional MM reference centers (20) and a subsequent survey of hematologists from fifteen LATAM countries demonstrated a dramatic variation regarding available diagnostic and prognostic tools in MM.

Access to modern therapies for patients with MM is key, and recognizing the problem is the first step in LATAM (21). Solving the problem is not an easy task; therefore, collaboration among physicians, pharmaceutical companies, and local authorities is greatly needed to find opportunities to discuss access to expensive therapies and develop infrastructure to deliver the mentioned treatments safely. The emergence of groups like GELAMM (*Grupo de Estudio Latinoamericano de Mieloma Múltiple*) is an essential step to recognize all these issues and hopefully be a path to initiate collaborations with the multiple elements involved in the solving process of access disparities in the region.

Victor H Jimenez-Zepeda^{1,2,3} 

¹ Tom Baker Cancer Centre, Alberta Health Services, Calgary, Canada.

² Cumming School of Medicine, University of Calgary, Calgary, Canada.

³ Arnie Charbonneau Cancer Research Institute, Calgary, Canada.

Corresponding author:

Victor H. Jimenez-Zepeda

E-mail: victor.zepeda@albertahealthservices.ca

Citación:

Jimenez-Zepeda VH. Multiple myeloma in Latin America: Are we moving at the same pace as other regions? *Rev Col Cancerol*. 2023;27(2):191-3. <https://doi.org/10.35509/01239015.986>

References

1. Jimenez-Zepeda VH, Chen G, Shaw E, Farris MS, Cowling T, Tay J. Real-world treatment patterns for patients with newly diagnosed multiple myeloma in Alberta, Canada. *Leuk Lymphoma*. 2022;63(11):2557-64. <https://doi.org/10.1080/10428194.2022.2092852>
2. Dimopoulos MA, Oriol A, Nahi H, San-Miguel J, Bahlis NJ, Usmani SZ, *et al*. Overall survival with daratumumab, lenalidomide, and dexamethasone in previously treated multiple myeloma (POLLUX): A randomized, open-label, phase III trial. *J Clin Oncol*. 2023;41(8):1590-99. <https://doi.org/10.1200/JCO.22.00940>
3. Richardson PG, Beksac M, Špička I, Mikhael J. Isatuximab for the treatment of relapsed/refractory multiple myeloma. *Expert Opin Biol Ther*. 2020;20(12):1395-404. <https://doi.org/10.1080/14712598.2021.1841747>
4. Davies F, Rifkin R, Costello C, Morgan G, Usmani S, Abonour R, *et al*. Real-world comparative effectiveness of triplets containing bortezomib (B), carfilzomib (C), daratumumab (D), or ixazomib (I) in relapsed/refractory multiple myeloma (RRMM) in the US. *Ann Hematol*. 2021;100(9):2325-37. <https://doi.org/10.1007/s00277-021-04534-8>
5. National Cancer Institute. Cancer Stat Facts: Myeloma. Accessed July 14, 2021. Available from: <https://seer.cancer.gov/statfacts/html/mulmy.html>
6. Tietsche de Moraes Hungria V, Chiattonne C, Pavlovsky M, Abenozza LM, Agreda GP, Armenta J, *et al*. Epidemiology of hematologic malignancies in real-world settings: findings from the Hemato-Oncology Latin America observational registry study. *J Glob Oncol*. 2019;5:1-19. <https://doi.org/10.1200/JGO.19.00025>
7. Palumbo A, Avet-Loiseau H, Oliva S, Lokhorst HM, Goldschmidt H, Rosinol L, *et al*. Revised international staging system for multiple myeloma: a report from International Myeloma Working Group. *J Clin Oncol*. 2015;33(26):2863-9. <https://doi.org/10.1200/JCO.2015.61.2267>
8. Mian H, Reece D, Masih-Khan E, McCurdy A, Kardjadj M, Jimenez-Zepeda VH, *et al*. Survival and outcomes of newly diagnosed multiple myeloma patients stratified by transplant status 2007-2018: retrospective analysis from the Canadian Myeloma Research Group Database. *Clin Lymphoma Myeloma Leuk*. 2022;22(8):608-17. <https://doi.org/10.1016/j.clml.2022.03.002>
9. Abello V, Mantilla WA, Idrobo H, Sossa CL, Salazar LA, Pena A, *et al*. Real-world evidence of epidemiology and clinical outcomes in multiple myeloma, findings from the registry of hemato-oncologic malignancies in Colombia, observational study. *Clin Lymphoma Myeloma Leuk*. 2022;22(6):e405-e413. <https://doi.org/10.1016/j.clml.2021.12.009>
10. Moreau P, Hulin C, Macro M, Caillot D, Chateleix C, Roussel M, *et al*. VTD is superior to VCD prior to intensive therapy in multiple myeloma: results of the prospective IFM2013-04 trial. *Blood*. 2016;127(21):2569-74. <https://doi.org/10.1182/blood-2016-01-693580>
11. Rosinol L, Oriol A, Teruel AI, Hernández D, López-Jiménez J, de la Rubia J, *et al*. Superiority of bortezomib, thalidomide, and dexamethasone (VTD) as induction pretransplantation therapy in multiple myeloma: a randomized phase 3 PETHEMA/GEM study. *Blood*. 2012;120(8):1589-96. <https://doi.org/10.1182/blood-2012-02-408922>

12. Areethamsirikul N, Masih-Khan E, Chu CM, Jimenez-Zepeda V, Reece DE, Trudel S, *et al.* CyBorD induction therapy in clinical practice. *Bone Marrow Transplant.* 2015;50(3):375-9. <https://doi.org/10.1038/bmt.2014.288>
13. San-Miguel J, Dhakal B, Yong K, Spencer A, Anguille S, Mateos MV, *et al.* Cilta-cel or standard care in lenalidomide-refractory multiple myeloma. *N Engl J Med.* 2023 Jun 5. <https://doi.org/10.1056/NEJMoa2303379>
14. Rodriguez-Otero P, Ailawadhi S, Arnulf B, Patel K, Cavo M, Nooka AK, *et al.* Ide-cel or standard regimens in relapsed and refractory multiple myeloma. *N Engl J Med.* 2023;388(11):1002-14. <https://doi.org/10.1056/NEJMoa2213614>
15. Petrou P. CAR-T therapy for multiple myeloma in China. Does it make sense financially? *J Med Econ.* 2023;1-4. <https://doi.org/10.1080/13696998.2023.2224636>
16. Gómez-Almaguer D, de Moraes Hungria VT. Multiple myeloma in Latin America. *Hematology.* 2022;27(1):928-31. <https://doi.org/10.1080/16078454.2022.2112643>
17. Pessoa de Magalhães Filho RJ, Crusoe E, Riva E, Bujan W, Conte G, Navarro JR, *et al.* Analysis of availability and access of anti-myeloma drugs and impact on the management of multiple myeloma in Latin American countries. *Clin Lymphoma Myeloma Leuk.* 2019;19(1):e43-e50. <https://doi.org/10.1016/j.clml.2018.08.005>
18. Tarín-Arzaga L, Arredondo-Campos D, Martínez-Pacheco V, Martínez-González O, Ramírez-López A, Gómez-De León A, *et al.* Impact of the affordability of novel agents in patients with multiple myeloma: real-world data of current clinical practice in Mexico. *Cancer.* 2018;124(9):1946-53. <https://doi.org/10.1002/cncr.31305>
19. Peña C, Riva E, Schutz N, Tarín-Arzaga L, Martínez-Cordero H, Bove V, *et al.* Different outcomes for transplant-eligible newly diagnosed multiple myeloma patients in Latin America according to the public versus private management: a GELAMM study. *Leuk Lymphoma.* 2020;61(13):3112-19. <https://doi.org/10.1080/10428194.2020.1804558>
20. Riva E, Schütz N, Peña C, Ruiz-Argüelles G, Hopkins CR, Bove V, *et al.* Significant differences in access to tests and treatments for multiple myeloma between public and private systems in Latin America. Results of a Latin American survey. GELAMM (Grupo de Estudio Latino Americano de Mieloma Múltiple). *Ann Hematol.* 2020;99(5):1025-30. <https://doi.org/10.1007/s00277-020-03983-x>
21. Hamerschlak N, de Lima M. Improving patient access to modern myeloma therapy in Latin America: first step, know what your problem really is. *Leuk Lymphoma.* 2020;61(13):3033-4. <https://doi.org/10.1080/10428194.2020.1821013>