

EDITORIAL

From hope to reality: the road to cure from multiple myeloma centers of excellence

De la esperanza a la realidad: el camino a la cura desde los centros de excelencia del mieloma múltiple

Multiple myeloma (MM) is a heterogeneous disease that until now has been considered incurable, even in the younger population ([1,2](#)). However, recent data show an increase in the number of MM patients who have achieved what is called an “operational cure” due to innovative treatments and diagnostic and follow-up alternatives, something that has become a hope in oncologic hematology ([3,4](#)). The strategies that have been determinant in the improvement of survival and quality of life in most patients are the use of combined and targeted treatment modalities from the onset of the disease, especially in patients at high biological risk ([4-6](#)), high-dose chemotherapy, and autologous stem cell transplantation (ASCT) ([7,8](#)), which helped obtain deeper responses by achieving the negativization of minimal residual disease (MRD), continuous therapy to control MRD when it persists ([9](#)), improved techniques for early detection of relapses ([6](#)), the use of novel therapies in relapse cases, especially immune effector cell therapy ([8](#)), and finally the possibility of access to novel drugs in the context of standard of care or clinical trials ([10](#)).

The *Instituto Nacional de Cancerología* (INC) (Bogotá, Colombia)—an accredited health institution whose mission is to work for the integral control of cancer through the attention and care of patients, research, training of human talent, and the development of public health actions—has bet not only on the consolidation of functional cancer units but also on the attention of patients through centers of excellence (CE). In this regard, the *Centro de Excelencia en Mieloma Múltiple del Instituto Nacional de Cancerología* (CEMMINC) was a pioneer in the group of hematologic neoplasms ([11](#)). This CE is coordinated and run by professionals trained and dedicated exclusively to the care of MM and related

diseases, a model that has been extraordinarily efficient in the best cancer centers in Canada, the United States, and Europe ([12-15](#)).

Within CEMMINC, the guidelines for the treatment of MM have been shaped not only for Colombia but for all Latin America, including the period of the SARS-CoV2 (COVID-19) pandemic ([16,17](#)). It is important to note that the INC has one of the most modern hematopoietic progenitor transplant units in the region, with an area exclusively dedicated to transplantation in MM and related diseases that serves institutional patients and patients from other centers and territories of the country. This has led to a gradual increase in the number of transplants performed over time, solving the enormous problem of lack of access in general and early access to this important therapy not only in MM but also in other hematologic diseases and even some solid neoplasms, such as germ cell tumors ([18](#)). Transdisciplinarity has been essential to consolidate CEMMINC, and this can be seen in how different groups intervene to improve the survival and quality of life of MM patients. The oncological pathology group has a plasma cell sorter that allows for selecting tumor cells with greater precision in determining cytogenetic risk. This enables us to guide treatments based on the concept of precision medicine. The accuracy in evaluating treatment response and the early detection of relapses is extraordinary thanks to the estimation of MRD due to the availability of a powerful flow cytometer and the recent acquisition of digital positron emission tomography (PET) in addition to the analogous PET already available ([19](#)). In cases of extreme difficulty, we hold international meetings with other clinical experts in MM from the United States, Canada, and Spain in a virtual manner.

In terms of research, the INC has a research group in multiple myeloma and lymphoma recognized by the Colombian *Ministerio de Ciencia, Tecnología e Innovación* (20), which has been an active part of the *Grupo Latinoamericano de Mieloma Múltiple* (GELAMM), the *Grupo de Estudio Latinoamericano de Linfoproliferativos* (GELL), and the Colombian Multiple Myeloma Research Group (GRIMMCO). It has participated in and led several national and international research projects, among which the following stand out: clinical characteristics and outcomes of patients with fractures and MM led by the orthopedic oncology group of the INC (21); behavior of patients with MM and SARS-CoV2/COVID-19 led from Colombia (22); significant differences in clinical outcomes between different countries in the private and public sector led from Chile (23); characterization of the most severe spectrum of MM, which is plasma cell leukemia, and the behavior of MM in very young patients (1,24); the importance of cytogenetic evaluation, autologous stem cell transplantation as well as the epidemiology of MM in Colombia (25-27). As for related diseases, it has also participated in and led publications in amyloidosis and Waldenström's macroglobulinemia (28-30). An important number of patients have participated in international clinical trials that have contemplated the use of novel drugs; this will significantly increase with the work carried out by the translational medicine group.

On the road to excellence, we still have several tasks to accomplish, among which I highlight the possibility in the short/medium term of having specialties that today are fundamental in the care of our patients, such as cardio-oncology and nephro-oncology, as well as geriatrics, in addition to having, in diagnostic terms, next-generation flow cytometry, next-generation sequencing technology, and mass spectrometry. In terms of treatment, to have access to bispecific T-cell engagers (BiTEs) and T-cells with chimeric antigen receptors (CAR-T cells)

and, once approved, to consolidate a transplant and cell therapy unit that—in a joint effort with the *Instituto Distrital de Ciencia, Biotecnología e Innovación en Salud* (IDCBIS)—will allow for using CAR-T cells developed in house. Of course, we must also continue to consolidate institutional research projects, primarily with the cancer biology group, in addition to academic projects in which I underline the possibility of having a fellowship program in lymphoma-myeloma-transplantation and cell therapy, given the position of the INC as a university hospital with worldwide recognition. All these achievements would not have been possible without the close cooperation of the hemato-oncology and bone marrow transplant teams and, of course, the support of the institutional administration that has always bet on the path of excellence in the management of MM and other types of cancer.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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