

PREFACE

CYNTHIA VILLARREAL-GARZA^{1*}, M.D., D.Sc., ANDREA CASTRO-SANCHEZ², M.D.,
AND ALFREDO ULLOA-AGUIRRE³, M.D., D.Sc.

¹Founder and Director of "Joven y Fuerte: Programa para la Atención e Investigación de Mujeres Jóvenes con Cáncer de Mama en México", Mexico, Centro de Cancer de Mama, Hospital Zambrano Hellion, Tecnológico de Monterrey, Nuevo Leon, Mexico, and Departamento de Investigación y de Tumores Mamarios, Instituto Nacional de Cancerología, SSA, Mexico City, Mexico; ²Joven y Fuerte: Programa para la Atención e Investigación de Mujeres Jóvenes con Cáncer de Mama en México, and Cátedras CONACyT, Instituto Nacional de Cancerología, SSA, Mexico; ³Red de Apoyo a la Investigación, Universidad Nacional Autónoma de México-Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, and Editor-in-Chief, Revista de Investigación Clínica –Clinical and Translational Investigation–, Mexico

Breast cancer (BC) is the most frequently diagnosed malignancy in young women and is the leading cause of cancer-related mortality in this age group¹. This issue represents a major public health problem in developing countries, where the incidence of BC is rapidly increasing and where young women represent a higher proportion of the total BC patient population compared to developed countries. In Latin America, BC among women aged 40 years or less accounts for up to 11% of new BC cases and 7% of all BC deaths². In Mexico, a very high proportion of the total number of BC patients are diagnosed in their early years, reaching up to 15% in some healthcare institutions³.

Young women are diagnosed more frequently at advanced stages, have more aggressive pathological features, a greater proportion of triple-negative and HER2-overexpressing tumors, and higher rates of systemic relapse compared to their older counterparts. Hence, the increased proportion of BC cases in young women results in a disproportionate number of life-years lost among this young group. Although BC treatment does not greatly differ with age, optimal management of young women with BC often requires complex interdisciplinary supportive care. Particularly challenging age-related issues associated with early and long-term morbidity that might significantly impair quality of life include: premature ovarian failure provoked by chemotherapy, infertility, body image disturbance, compromised sexual function, impaired cognition, effects on bone mineral density, and the continuous threat of disease recurrence and death.

As young women are likely to be diagnosed at a life stage where professional, personal, social, and family projects are often consolidated, they are recognized to be vulnerable to emotional distress and psychosocial problems, needing special supportive interventions. Equally significant are the consequences of the illness for the spouse, children, parents, and peers. Furthermore, younger BC patients are also more likely to be carriers of genetic mutations, a situation that involves additional difficult decisions and adds to the emotional burden carried by these women.

Corresponding author:

*Cynthia Villarreal-Garza, M.D., D.Sc.
Centro de Cáncer de Mama
Hospital Zambrano Hellion
Tecnológico de Monterrey
Monterrey, N.L., México
E-Mail: cynthia.villarreal@tecsalud.mx

Additionally, young BC patients in limited-resource settings might face some particular issues such as financial instability, unemployment, child-care issues, stigma, violence, and abuse.

Despite all the above issues, there is scarce information regarding these matters in Latin American countries, particularly those related to the effects and complications that this group of women face during and after treatment. Also, until recently there were no local clinical or educational programs that focused on this young population.

The rising incidence and mortality of BC among young Latin American women is a call to action in the region. Further research is necessary in order to understand and characterize the real scenario of this particular group of patients in these countries. These efforts should be focused on understanding the clinical, molecular, sociocultural, and educational traits and issues related to survival and survivorship. This unmet growing burden must be considered a top priority for the national programs in the fight against BC, and models of specialized units should be implemented for this particularly vulnerable group to provide better care for this emerging challenge.

The first collection of articles published in this issue of *Revista de Investigación Clínica –Clinical and Translational Investigation–* addresses several important topics on BC in young women. The first article reviews the epidemiological aspects of BC in premenopausal women, which represent true challenges for limited-resource environments such as those prevalent in developing countries. This review is followed by an article that analyzes intra-tumor heterogeneity in BC, with emphasis on the factors inherent to tumor biology that influence tumor aggressiveness and response to treatment, as well as the potential clinical and therapeutic implications of this important feature of BC cells. A general overview on the current treatment modalities of BC in young women is also included, underlining the importance of considering both the biological behavior and stage of the disease in personalizing treatment approaches, an issue that currently represents a challenge for the development of new therapeutic strategies. The collection included in this issue ends with three excellent articles: the genetic risk assessment and counseling in young patients with BC, an aspect that has lagged behind in Latin America when compared with what is being practiced in developed countries; fertility preservation in young women with BC, in which the authors take the reader through a wealth of information on the effects of chemotherapy on ovarian function and the current therapeutic options available for those women with BC who desire fertility preservation, two important aspects that still are not sufficiently considered in the clinical setting; and self-image and sexually-related issues among this particular population of patients with BC, which are important for their quality of life after treatment ends. Needless to say that the authors selected by the Editors to prepare this collection are well-recognized scientists, with strong research programs and contributions in their corresponding fields.

The Guest Editors of this collection, whose second part will appear in the next issue of the journal, want to express appreciation to the authors for providing contributions in a timely fashion. We have no doubt that this special collection will shed important light on the subject for clinical oncologists and healthcare providers.

REFERENCES

1. Bleyer A, Barr R, Hayes-Lattin B, Thomas D, Ellis CH, Anderson B. The distinctive biology of cancer in adolescents and young adults. *Nat Rev Cancer*. 2008;8:288-98.
2. Villarreal-Garza C, Aguila C, Magallanes-Hoyos MC, et al. Breast cancer in young women in Latin America: an unmet, growing burden. *Oncologist*. 2013;18(Suppl):26-34.
3. Villarreal-Garza C, Platas A, Bargalló-Rocha JE, et al. Cáncer de mama en mujeres jóvenes: Experiencia en el Instituto Nacional de Cancerología. *Rev Mex Mastol*. 2015;5:12-17.