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Why Is the Topic of Cancer and Pregnancy So Important? Why and How to Read this Book

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Cancer during pregnancy represents a philosophical and biological paradox. To be confronted with the diagnosis of cancer during a pregnancy is certainly one of the most dramatic events in a woman's life and in the life of her partner and family. The diagnostic and therapeutic management of the pregnant mother with cancer is especially difficult because it involves two persons, the mother and the fetus. Although treatment modalities and timing should be individualized, both obstetricians and oncologists should offer at the same time optimal maternal therapy and fetal well-being. The approach to these particular patients should be undertaken by a dedicated multidisciplinary team.

This book is the result of an advanced course that we organized on behalf of the European School of Oncology on the different aspects of cancer during pregnancy. During the 2 years of preparation for the course and through the 3-day presentations of our outstanding colleagues and the interactive discussion with highly qualified participants, we shared knowledge and first-hand clinical expertise on diagnosing, treating, and following women with different cancers during pregnancy. This is a field in which the published literature is still scanty, and we have decided to prepare this collection of chapters with the aim of reviewing the existing medical data on cancer during pregnancy and also of providing insight into the many ethical and psychosocial aspects involved. While each chapter provides general suggestions on diagnosis, treatment, and follow-up of young women who face the concomitance of cancer and pregnancy, this book is not intended as a practical guideline. Rather, the scope of this book is to present a comprehensive overview of the subject in all its complexity. Each

chapter contains separate references on published literature and on online sources, where physicians can find additional information on referral centers and on ongoing clinical trials and registries.

Through the different chapters of this book, we see that the exact incidence of cancer in pregnancy is yet to be determined, but it is estimated that cancer occurs in 1 in 1,000 pregnancies and accounts for one-third of maternal deaths during gestation. The most common cancers in pregnancy are those with a peak incidence during the woman's reproductive period such as cancer of the breast and cervix, melanomas, lymphomas, and leukemias. As the trend for delaying pregnancy into the later reproductive years continues, this rare association is likely to become more common. Special registries are ongoing, and more should be established, to identify the real epidemiology of this coexistence, as well as the outcome of the offspring.

Diagnostic and staging work-up with radiological imaging should limit exposure to ionizing radiation and should be restricted to those methods that do not endanger fetal health. Especially during the first trimester of pregnancy, only absolutely necessary radiological investigations are justified. Other diagnostic procedures such as excisional or incisional biopsies, endoscopies, and lumbar puncture or bone marrow biopsies can be safely performed with the appropriate caution.

The therapeutic management of pregnant women with cancer requires specific "optimal gold standards". The medical personnel involved should try to benefit the mother's life, to treat the mother's curable cancers, to protect the fetus and the newborn from harmful effects of treatment,

and to retain the mother's reproductive system intact, when possible, for future gestations.

Some chemotherapeutic agents can be safely administered during the second and third trimesters, whereas radiotherapy is better avoided throughout gestation. Surgery under general anesthesia is feasible during all trimesters.

Accumulating evidence suggests that pregnancy is not an independent poor prognostic variable for patients' survival. Survival appears to be similar between pregnant and nonpregnant cancer patients.

The mother's cancer cells can be transmitted vertically to the placenta or fetus—a rare phenomenon most commonly described in malignant melanoma. Macroscopic and histopathologic examination of the placenta as well as cytological examination of the umbilical cord blood should be performed routinely.

Cancer diagnosed during pregnancy is a dramatic event with profound impact on the life of the patient, offspring, family, and physician.

Several medical, psychological, religious, social, and ethical issues contribute to the final decision, and establishing a trustful patient–doctor–family relationship is essential. The management of pregnant cancer patients is also highly emotionally charged for the physicians and all members of the oncology team, and support should also be offered to them.

As the number of cancer survivors increases worldwide and many women tend to postpone childbearing until later in their reproductive life, the morbidity related to reproductive sequelae of oncologic therapies may negatively affect the physical, psychological, and social dimensions of their lives. Treatment-related reproductive dysfunctions, often superimposed on independent factors, should be addressed with all young cancer patients at the time of diagnosis and treatment planning. Adequate information and education should be provided about means to preserve and enhance fertility in young women undergoing therapies for different cancers.

Cancer and Pregnancy

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