Gestational Trophoblastic Disease

Presentations from the XVIth World Congress on Gestational Trophoblastic Diseases

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Guest Editor

Introduction to the Symposium

The current symposium contains a selection of papers that were presented at the XVIth World Congress on Gestational Trophoblastic Diseases in Budapest, Hungary, October 16–19, 2011. The Congress was organized under the exceptional leadership of Dr. Vilmos Fulop, the Congress Chairperson, and was extraordinarily successful in showcasing the latest advances in the basic science, population studies and clinical management of gestational trophoblastic diseases. The Congress was sponsored by the International Society for the Study of Trophoblastic Diseases. Scientists and clinicians from Europe, Asia, and North and South America presented the latest developments in the biology and treatment of gestational trophoblastic diseases.

Presentations on basic biology focused on the genetic changes in gestational trophoblastic disease and the molecular biologic sources of chemotherapy resistance. Clinical presentations provided stimulating information covering the epidemiology and challenges and advances in treatment across the globe. The Congress served to foster collaboration amongst investigators to further knowledge and management of gestational trophoblastic diseases.

Gestational trophoblastic disease is remarkably curable even in the presence of widespread metastases. It is reasonable to question what challenges remain in this set of unique diseases. Can we simply declare victory? There continue to be many areas of investigation that can contribute to the understanding and management of these diseases as well as other diseases of human reproduction and other malignancies. While low-risk gestational trophoblastic neoplasia (GTN) is highly curable with single-agent chemotherapy, the optimal regimen in terms of effectiveness, toxicity and cost needs to be established. High-risk metastatic GTN has a substantial cure rate with first-line chemotherapy (generally etoposide, methotrexate, actinomycin D, cyclophosphamide and oncovin [EMA/CO]), but effective second-line treatments need to be developed to maximize cure. Improved understanding of the genetics and pathogenesis of gestational trophoblastic disease will likely provide important insights into the biology of other reproductive diseases as well as other cancers. Because gestational trophoblastic diseases are at least a partial allograft, with at least half of the genetic material being paternal, understanding the immunobiology of these diseases may elucidate the relationship between immunologic response and survival in other neoplasias. Patients receiving chemotherapy for...
GTN have a high expectation for cure while retaining their fertility. Long-term follow-up in these patients can provide critical information about the late effects of chemotherapy and cancer treatment on subsequent reproduction as well as social and psychological impacts in reproductive-age women. The above-mentioned areas of investigation do not represent a complete list of important future research but merely present some examples of how investigation of these diseases can provide major contributions to the understanding and management of other human reproductive diseases and malignancies.

This symposium contains the most current advances in the understanding and management of gestational trophoblastic diseases from around the globe. It successfully provides the reader with a scholarly update on our present state of knowledge of both the biology and treatment of these diseases.

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