
Essentials in Ophthalmology

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Editors

Recent Advances in Retinoblastoma Treatment

 Springer

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Preface

The chapters in this book represent most of the lectures that were delivered at the celebration honoring 100 years of retinoblastoma in New York (1914–2014). During those 100 years, there was a complete reversal in the field. In 1914, more than 95 % of children with retinoblastoma died of metastatic disease and the majority of the eyes removed for retinoblastoma did not contain cancer. By 2014, more than 99 % of children in New York survived and for more than 40 years no eye in New York has been removed for retinoblastoma incorrectly. In 1914, retinoblastoma management consisted of enucleation, exenteration, and low energy external beam irradiation and few children retained an involved eye and no retained eye had useful vision. By 2014, the therapeutic options included enucleation, high energy external beam irradiation, brachytherapy, laser photocoagulation, cryotherapy, intravenous, periocular, intravitreal, and intra-arterial chemotherapy and largely as a result of intra-arterial chemotherapy and intravitreal chemotherapy more than 95 % of eyes could be saved and more than 90 % of children retain 20/20 vision. In 1914, retinoblastoma was classified as a “glioma” of the retina and by 2014 elegant studies revealed that the cell of origin was a cone precursor (the name retinoblastoma was introduced 90 years ago).

Retinoblastoma survival is now the highest in all of pediatric oncology and issues of long-term consequences (physical and psychological) are influencing present therapeutic decisions. The story of second malignancies in this disease has served as paradigm for oncology and strategies for preventing and detecting (and treating) these (usually) lethal cancers were presented at the meeting.

While metastatic retinoblastoma is now rare in the USA, it remains a major issue worldwide where it is estimated that 50 % of children still die. Metastatic retinoblastoma is now largely curable in countries with advanced medicine but second cancers, pineal malignancies, and secondary sarcomas are now the major cause of death of retinoblastoma survivors in the USA.

More than 175 health care workers from almost 20 countries participated in this meeting/celebration (with others electronically listening in from Africa).

In these 100 years, many physicians have worked, studied, contributed and help make the New York program the leading center in the world. There have been three directors: Algernon B. Reese, M.D., Robert M. Ellsworth, M.D., and me. I had the opportunity to learn from both of these giants and my work is simply built on their pioneering efforts. I hope that after reading this book you can say the same.

New York, NY, USA

David H. Abramson, MD

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