Book Review

BOOK REVIEW:

Retinoblastoma: Clinical Features, Diagnosis and Treatment monograph, edited by N.F. Bobrova, Prof., Dr Sc (Med)

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The monograph under review is relevant because retinoblastoma is the most common primary intraocular malignancy of childhood, with a prevalence of about 11 cases per 1 million children under 5 years of age, and occurring in 1 of 18,000-30,000 live births. An estimated 250-500 new cases of retinoblastoma occur in the United States yearly, and the disease has no significant predilection for gender or race (Marichelle Aventura Isidro, 2019). The monograph is of additional value since early diagnosis of retinoblastoma is essential for reducing morbidity and mortality. The majority of patients (90%) present before 5 years of age, with a median age at diagnosis of 18 months.

The monograph reflects the multiyear experience of the Pediatric Eye Department of the Filatov Institute of Eye Disease and Tissue Therapy on the relevant issue, treatment of intraocular malignancy of childhood. In recent decades, retinoblastoma incidence rates have been still quite high, which created the need for the analysis of available methods for diagnosis and treatment reported for this disease, and the development of advanced methods of influence on the tumor. Although in recent years, a breakthrough in the management of retinoblastoma has been associated with the development of methods of local chemotherapy and advanced local destruction techniques which provide hope for salvage of not only the affected eye, but also vision, the issue in pediatric ophthalmology is still not completely resolved.

A profound analysis of epidemiology, diagnostic techniques, clinical features of, and current methods of treatment for retinoblastoma is the result of work performed by a team of authors from the Pediatric Eye Department headed by Professor Nadiia Fedorivna Bobrova, Dr Sc (Med), Honored Worker of Science and Technology of Ukraine, and a long-term chief of the department.

The historical section of the monograph is very interesting and provides an idea about the evolution of the issue at various stages of the development of ophthalmology and academic contributions from famous European and Ukrainian specialists in treatment of retinoblastoma. The section on the epidemiology of retinoblastoma informs readers of the prevalence of the disease in various geographic regions and the experience of various countries in retinoblastoma healthcare.

The classification section is especially important and useful for clinicians and presents retinoblastoma classification

schemes which mostly reflect the evolution of the methods for combating the disease and the development of diagnostic and treatment measures.

The section on the clinical manifestations of retinoblastoma allows ophthalmologists to be aware of the features of manifestations at different phases of disease process, aiming both to improve clinical experience and increase their suspicion of cancer in cases complicated by the presence of symptoms masquerading as other eye diseases.

The section on the current diagnostic modalities for retinoblastoma highlights the potential of current instrumental diagnostic methods and analyzes their diagnostic capacity for the disease.

The key section is that which deals with the description of and discusses the available methods of treatment for retinoblastoma, because it is the correct choice of treatment for a particular patient that is a major contributor to as rapid and safe clinical effect as possible and a corner stone in special medical care. It is important that the results of the use of advanced methods of treatment for retinoblastoma presented in the monograph have been obtained by the authors and thoroughly analyzed during their studies.

Some of the methods and novel technologies developed by the authors have been covered by patents of Ukraine. The achievements of the Pediatric Eye Department in the development of eye-preserving treatment methods exemplify the success of the current approach to the treatment of retinoblastoma. Methods of target (e.g., intra-arterial, periocular and intravitreal) chemotherapy for retinoblastoma have been actively developed in recent years and allow reducing the negative impact of systemic combination chemotherapy on the child's body. The clinical research conducted by the authors' team headed by Professor Bobrova demonstrated that, among local therapies for retinoblastoma, intravitreal cytostatics are the most promising and enable the greatest concentration of the chemotherapeutic agent injected into the ocular cavity, with the lowest possible systemic concentration in the body. Given the continuous nature of the research conducted at the Pediatric Eye Department of the Filatov Institute, it is not surprising that it is in this establishment that the method of combined chemotherapy was developed that contemplates comprehensive systemic and local chemotherapeutic treatment and that was used for the first time in Europe. A ten-year experience has proved that the method is highly efficient, resulting in salvage of not only the life, but also the eye in most cases.

The section on the genetics and histology of retinoblastoma is of great interest.

The protocol for the treatment of retinoblastoma has contributed to the development and improvement of tertiary ocular cancer care in Ukraine, and describes a sequence of steps from diagnosing the tumor to hospitalization to a special care facility (a patient's route) and the required diagnostic and treatment measures. The objective of the developed system is to provide complete and adequate care in each particular case. The introduction of this system into practice will enable saving the lives and vision of hundreds of infants suffering from the malignancy. This is especially important, because it is where the children, the future of the country, are concerned. Without a doubt, the monograph is also important for clinical practice as its supports early diagnosis of retinoblastoma on the basis of interdisciplinary cooperation. Early medical care for retinoblastoma contributes to the favorable prognosis. Today, the overall survival for retinoblastoma in the USA and UK exceeds 85%.

An advantage of the monograph is that the material is presented in an easy to understand and logical manner and the text illustrated with numerous color figures, enabling readers to see all the cases and results of the presented treatment methods. The material presented in the monograph is held to the highest standards of science and practice.

The monograph is a useful source of knowledge on current methods of the diagnosis and treatment of retinoblastoma in children for a wide range of ophthalmologists, including those of primary care, eye surgeons, and pediatric ophthalmologists and neonatologists.