

Lessons Learned Treating Retinoblastoma in Panama Children's Hospital

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Introduction

Retinoblastoma is the most ocular tumor during infancy. Its diagnosis requires the suspicion of a family member or the personnel who attend the child, especially the pediatrician. This is an entity that requires a multidisciplinary approach and its long term survival is increasing.

The authors review 20 years of experiences in Panama Children's Hospital that is a third level pediatric hospital, located at Panama City, the capital city of Panama, with the mission of provide the best management of childhood pathology based on scientific evidence.

Material & Methods

This is an observational, retrospective, descriptive and transversal study that includes:

Patients with diagnosis of retinoblastoma confirmed by histology between January 1, 1996 and December 31, 2016, who at the moment of data collection (January 2017) finished treatment and are at the follow-up consultation for at least one year.

We excluded

- Those patients lost from the follow-up consultation for more than one year.
- Patients with incomplete data of localization.
- Patients who are on treatment at the moment of data collection.

We collected the data in Excel (version 2010) and calculated the rank, frequency, media, ratio, mean, mode or percentage according to the parameters of interest:

- Age in months at diagnosis.
- Gender (male/female).
- Principal symptom at diagnosis.
- Unilaterally or Bilaterally.
- Compromise extension including: extensively compromise

of the face and cranial structures (bustalnos), transcoroideal, exclusively retinal compromise, orbit compromise, retina and optic nerve compromise, cerebral spinal fluid compromise, ganglionic compromise, bone compromise.

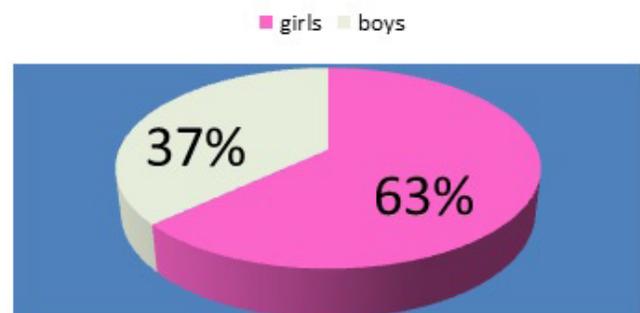
- Age in months at the time of enucleation.
- If the patient receive chemotherapy (yes/no)
- If the patient receive radiation therapy (yes/no).
- If the patient receive close observation as only assessment (yes/no).
- The use of laser and/or cryotherapy with conservative intention (yes/no).
- Age in years at the moment of last consultation.
- Status at the last follow-up consultation (alive/death).
- Level of education (toddler, preschooler, elementary school, high-school, education with especial adaption, college, professional).

Results

We collected the data of 38 retinoblastoma patients.

This is the distribution according to gender.

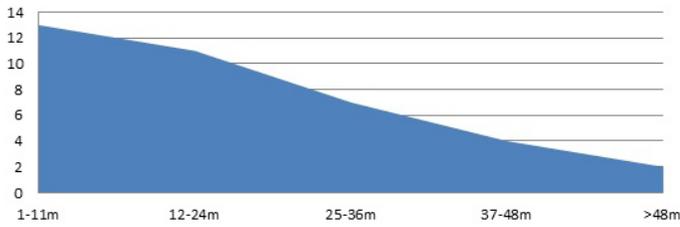
Distribution according to gender



According to our data the range of the age at diagnosis is between 3

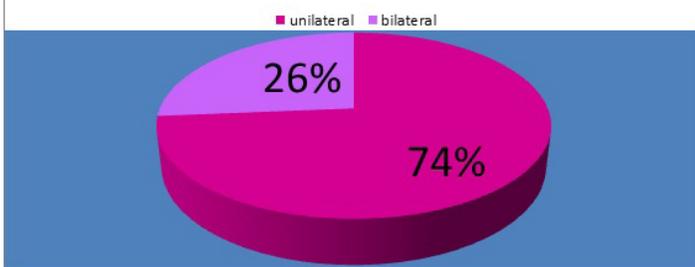
– 70 months. The mean age at diagnosis in months is 21.3 months. The mode is 13 months. This is the distribution according to age in months at diagnosis.

Distribution according to age in months at diagnosis



The most common symptom was leucocoria (white pupil) that is 86.8% of total. This is the distribution according to laterality.

Distribution according to laterality

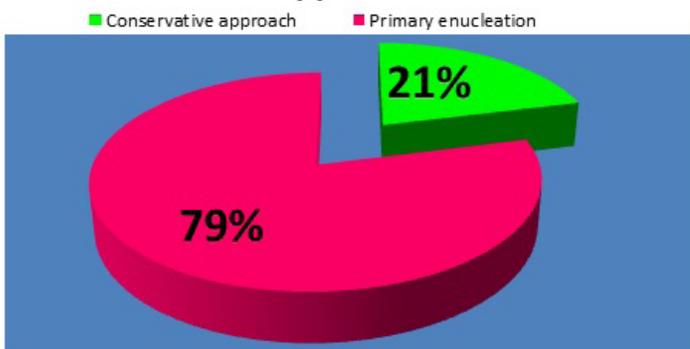


We reviewed 43 enucleated eyes. Table 1 shows the extension of compromise.

Retin and optic nerve	26
Orbit	7
Exclusively intraretinal	6
Transcoroideal	3
Buphtalmus	2
Total enucleated specimens	43

This is the distribution according to primary approach: Enucleation vs. Conservative.

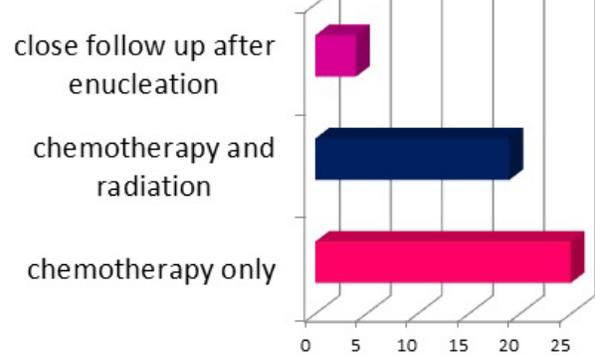
Distribution of cases according to primary approach



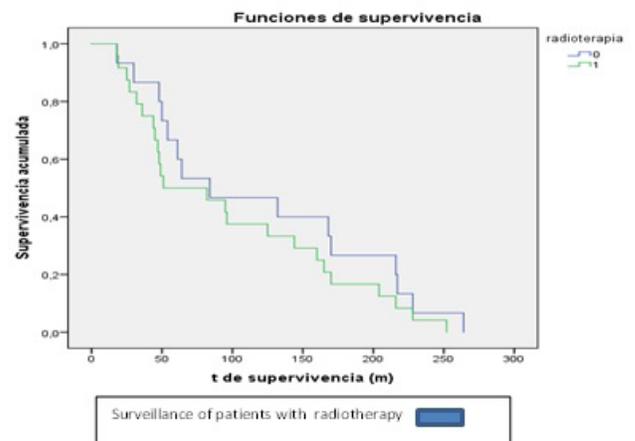
All the conservative approach cases what receive laser and cryotherapy.

According to our results 52% of our patients, receive chemotherapy after enucleation, 39.6% receive chemotherapy and radiation therapy and 8.3% did not receive chemo or radiotherapy.

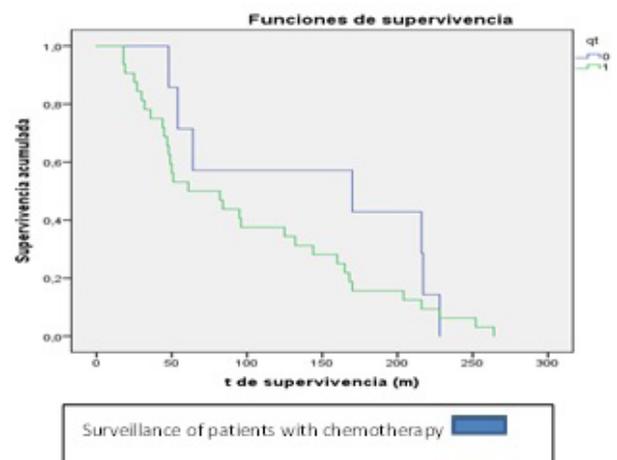
Distribution of cases according to oncologica



This is the surveillance graphic of the patients that receive radiotherapy:



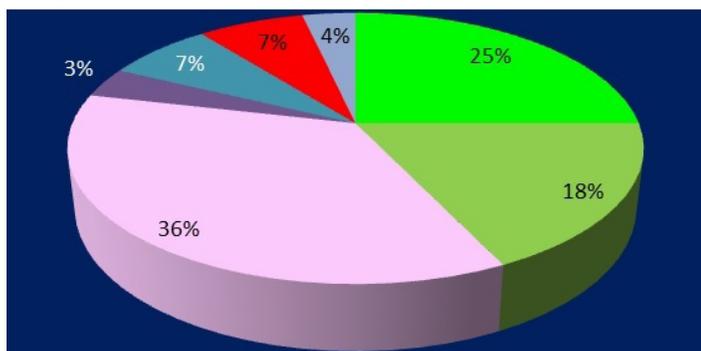
This is the surveillance graphic of the patients that receive chemotherapy:



This is the distribution according to level of education:

Continuation of Educational Life

■ Pre school ■ Elementary School ■ High School ■ Vocational high school
■ Colleges ■ Working profesional ■ Quit school



Conclusion

In Panama, thanks to combined efforts like:

- The Ministry of Health Program of Growth and Developing during Early Childhood
- The campaign of “Early signs of cancer in children” promoted by the FANLYC Association for Kids with Leukemia and Tumors
- The project of continual medical and nurse education involving Panamá Children’s Hospital and Texas Children’s Hospital of Houston.

Nowadays the diagnosis of retinoblastoma is made early. There are cases of extensive compromise of the face and cranial structures, coming from the indigenous aboriginal regions of our country. Our

efforts should be directed to those communities. Today thanks to more conscience of the health personnel and the general public is possible to offer effective treatment that produce increasing surveillances and good quality of life. The message of this, long term survivors are: CONTINUE WORKING OF EARLY DETECTION AND CLOSE FOLLOW-UP.

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