Retinoblastoma Unveiled:
"A Multidisciplinary Approach to Early Detection and Care"

EXPERTS

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THE REPUBLIC OF UGANDA
MINISTRY OF HEALTH

Seed Global Health ECHO

This session will delve into areas such as;

1.Overview of pediatric ocular cancers with focusing on retinoblastoma
2.Signs and Symptoms of retinoblastoma
3.Clinical evaluation of a patient with suspected retinoblastoma
4.Nurses' role in the care of children with retinoblastoma
5.The role of civil society organizations in raising awareness about retinoblastoma
6.Role of EMS in improving outcomes for children with retinoblastoma
7.Disposition plan for a child with retinoblastoma

scan to register

FRIDAY
4th April 2025
2-4pm EAT

Meeting ID: 958 3342 0633
use link:
https://shorturl.at/YRY9a

Moderator
Dr. Yvonne Bwikizo,
Paediatric Oncologist,
Uganda Cancer Institute

EMERGENCY CARE SOCIETY OF UGANDA

THE REPUBLIC OF UGANDA

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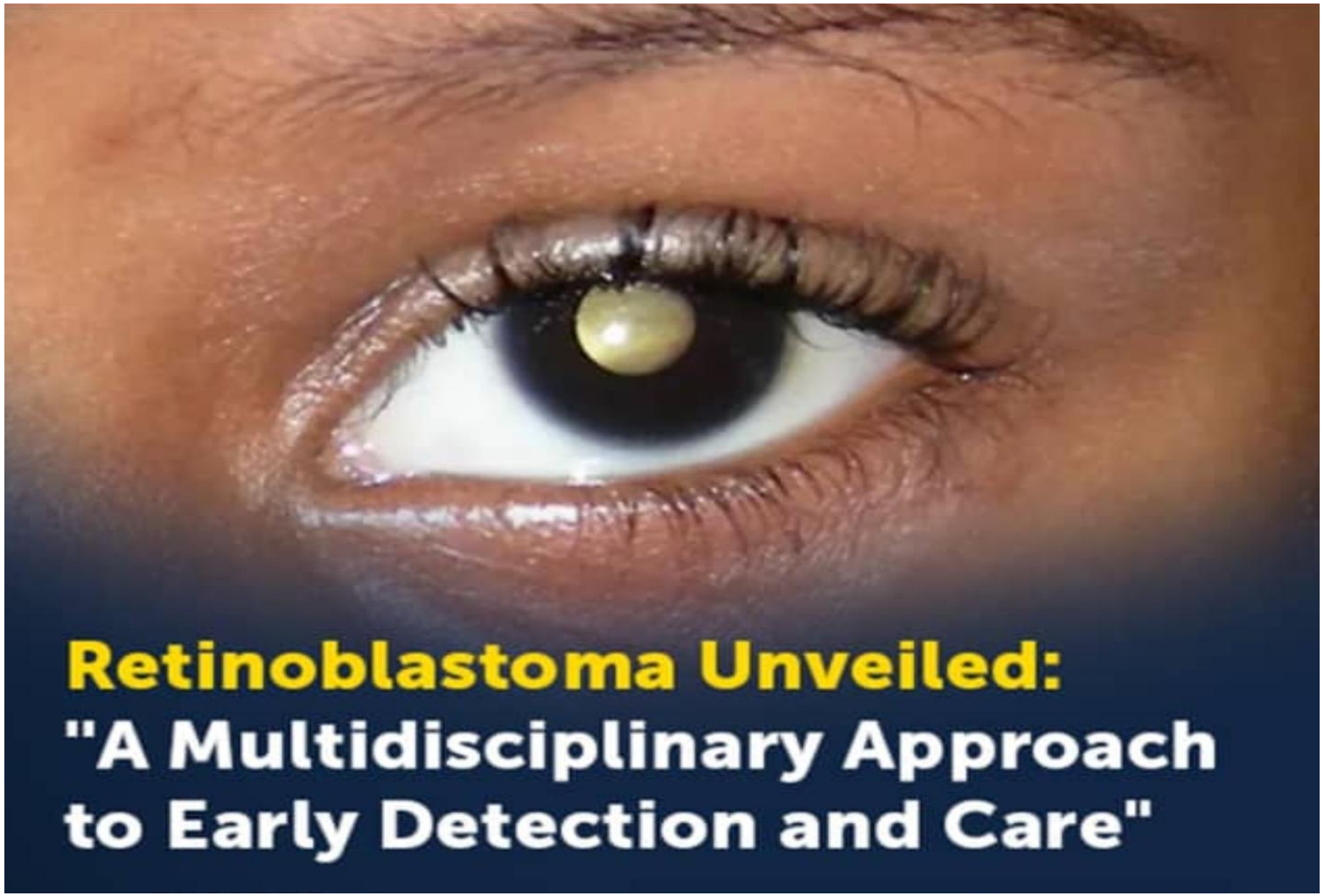


Dr. Joyce Balagadde Kambugu

4/4/2025

Global Initiative for Childhood Cancer: Index Cancers

Acute Lymphoblastic Leukemia
Most common worldwide

Burkitt Lymphoma
Common in many low-income countries

Hodgkin Lymphoma
Common in adolescents

Retinoblastoma
Connecting communities for early diagnosis

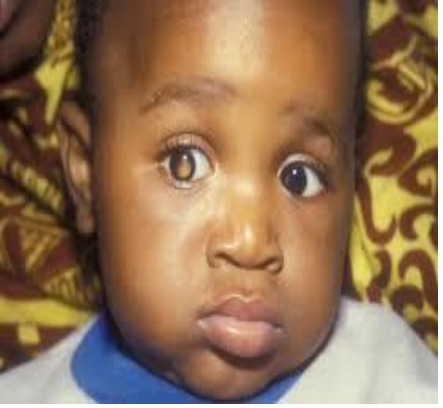
Wilms Tumor
Connecting multidisciplinary services

Low-Grade Glioma
Connecting health systems

From addressing common challenges...

...to connecting vital partners

- Highly curable, with proven therapies
- Prevalent in all countries
- Represents 50-60% of all childhood cancers
- Helps to advance comprehensive childhood cancer services and systems strengthening

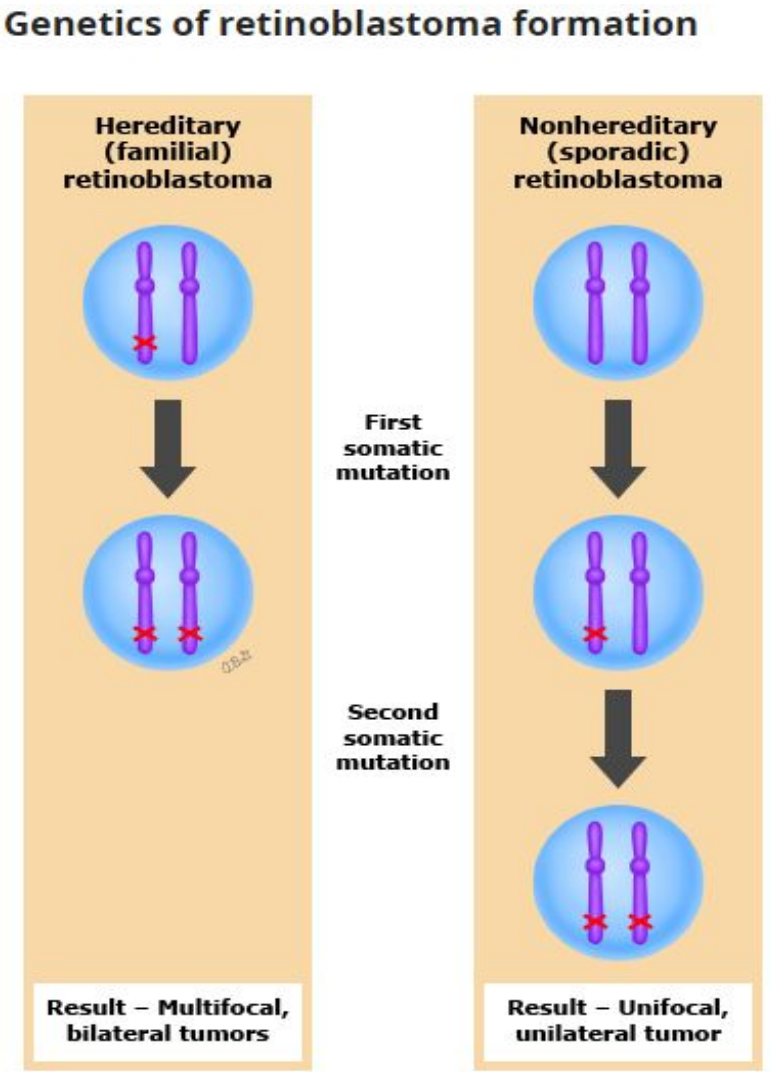


Introduction

- Most common primary intraocular malignancy of childhood
- It accounts for 10 to 15% of cancers that occur within the first year of life
- It is caused by biallelic inactivation of RB1 (tumor suppressor gene)
- It typically presents as leukocoria
- With advances in treatment, survival in the contemporary era is >95 percent

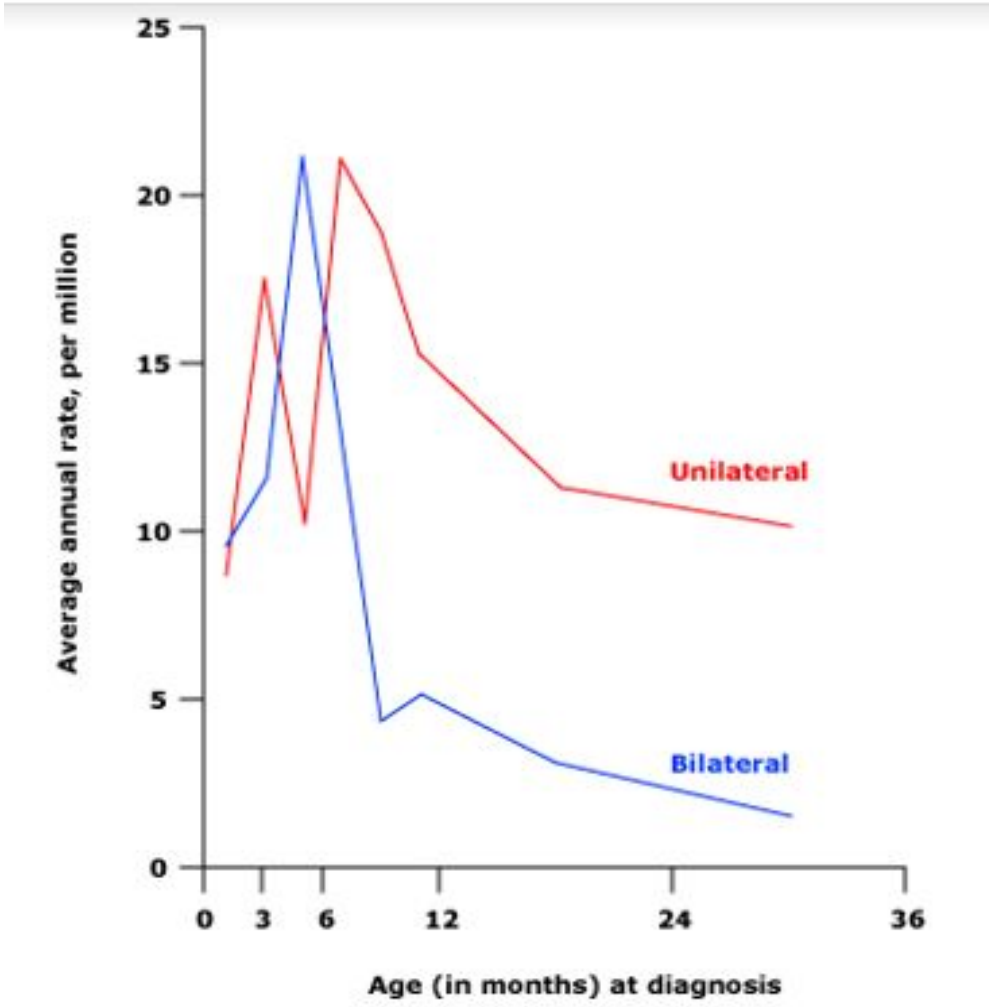
Genetics

- It occurs in the heritable and non-heritable form
- Inherited form accounts for ≈25% of all RB cases
- It often does not indicate that the child inherited the mutation, but rather that child harbors a germline mutation that is heritable in future offspring
- Non-hereditary form accounts for ≈75%. Somatic mutations in both alleles arise spontaneously, & locally in the affected retina



Epidemiology

- About 95% of children present before the age of five years
- The median age at diagnosis is 18 to 20 months (12 months for those with bilateral disease & 24 months for children with unilateral disease)
- The incidence is similar in males and females



SEER 1976-1984, 1986-1994

Epidemiology

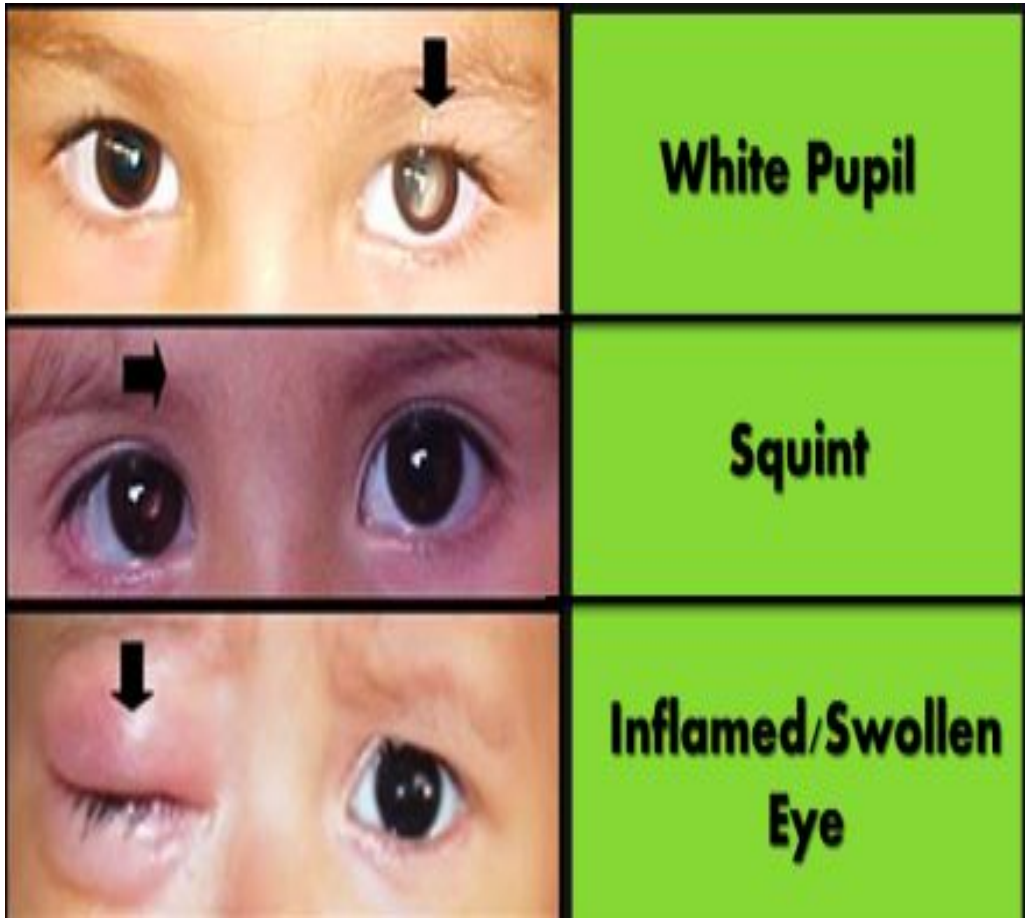
- Only about 10% have a positive family history for the disease, suggesting that the majority of cases arise from somatic mutations or de novo germline mutations

- Bilateral RB comprises 1/3, and unilateral comprises 2/3

Presentation

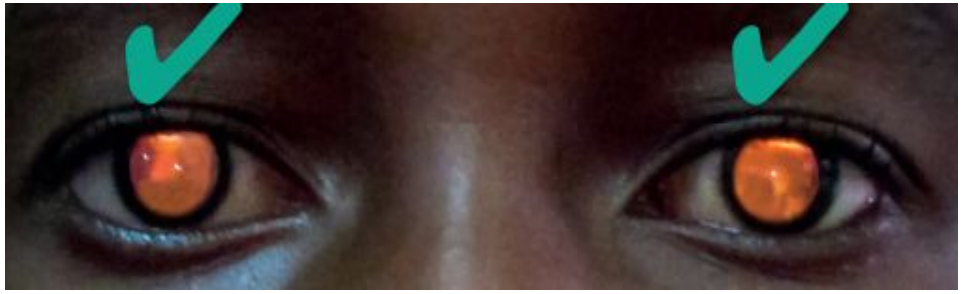
- Leukocoria (80%)
- Strabismus (15%)
- Nystagmus (10%)

- Advanced disease:
  - Buphthalmos
  - Glaucoma
  - periorbital cellulitis.
  - Proptosis



Screening

All neonates, infants, & children should have a red reflex examination by the paediatrician or primary care physician before discharge from the neonatal nursery & during all subsequent routine health supervision visits



Priorities of treatment

Cure (save life)

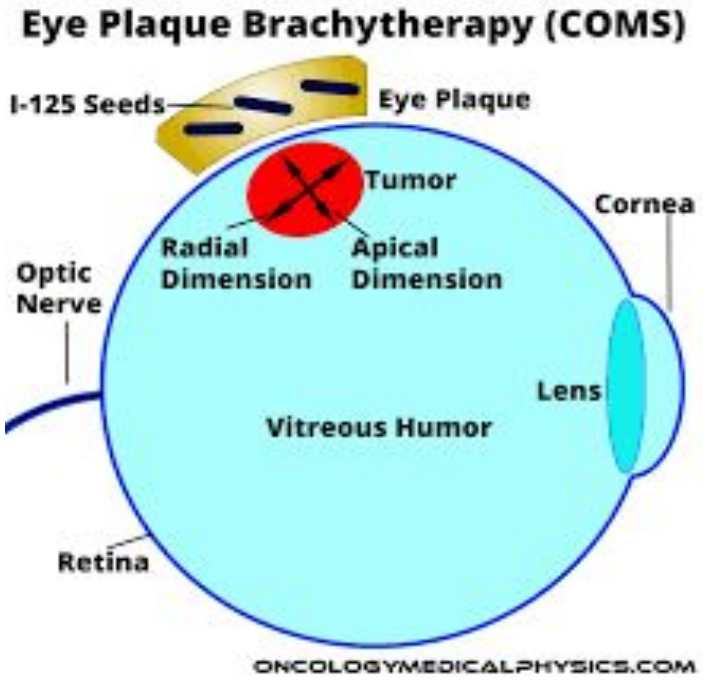
Eye Salvage (save globe)

Vision Preservation (save vision)

Treatment modalities

Multidisciplinary & dependent on the stage of disease

- Focal therapy: thermotherapy, cryotherapy, laser therapy, intra-ocular chemotherapy
- Systemic chemotherapy
- Surgery
- Radiotherapy



Follow up after completing of treatment

- EUA every 3 months until 3yrs after last treatment
- Then annually for life

Management of siblings and offspring

Genetic testing for RB1 gene

- If positive: EUA or RETCAM examination from age 1 month
  - Monthly for 3 months
  - 2 monthly for 6 months
  - 3 monthly for 2 years
  - Then 6 monthly
  - Annually or every two years after 7years of age

Thank you!!!!