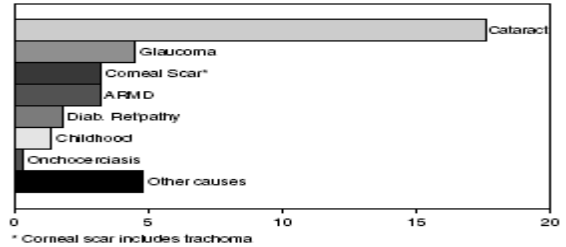


## Barriers for Glaucoma Follow-up

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Glaucoma is the second most common cause of global blindness



\* Corneal scar includes trachoma  
**Figure 1** Causes of global blindness in millions of people, 2002.

## Global Prevalence of Glaucoma

Estimated number in millions.	Open angle glaucoma	Angle closure glaucoma	Population
China	7.4	22.4	1300
India	5.6	5.6	1100
<b>South Asia</b>	4.2	4.2	770
Europe	6.9	0.6	1150
Africa	7.0	0.05	724
<b>Latin America</b>	1.3	0.5	510
Middle East	0.6	0.3	330
<b>Total</b>	<b>33.1</b>	<b>33.65</b>	<b>6234</b>

## Glaucoma and India

- Third leading cause of blindness worldwide behind cataract and uncorrected refractive error
- Accounts for 10% of world's blind
- In India, 4-10% of bilateral blind
- Multi-centered studies found lowering IOP can significantly reduce progression of visual loss
- Even marginal improvements in glaucoma care would have a vast impact in decreasing vision loss & blindness

## Problems of Glaucoma

- Poor awareness of glaucoma
- Inadequate screening and diagnosis
- Low utilization of eye care services
- Poor adherence to treatment and longitudinal follow-up

## Present Status

### Screening Vs Case Detection

- Composite disease (IOP, OD changes, field defects)
- Camps are not effective in screening for glaucoma
- Case detection in people who come for other eye care needs is only best way available today

### *Specific Aims of the Project*

- To explore awareness of glaucoma amongst rural and urban population of Puducherry state
- To create awareness of glaucoma to people of Puducherry state
- Project funded of DSTE, Puducherry

### *Survey*

- During the month of July survey was done in Nettapakkam and Nallathur (Rural) and Mudaliarpeta and Villianur (Urban)
- 1024 subjects (521 subjects from rural area and 503 subjects from urban area) were interviewed about awareness of eye diseases including Glaucoma

### *Summary of Awareness Survey*

- Nearly 50% of the study population was aware of Cataract
- 35% was aware of Diabetes and 25% was aware that eyes are affected in diabetes
- Awareness of Glaucoma is the lowest in the population, only 4.69%
- Awareness of Glaucoma was really poor in rural areas (2.49%).

### *Awareness of Glaucoma*

- APEDS - Urban Vs Rural 2.3% Vs 0.32%
- DSTE Study – 4.69% Vs 2.49%

### *Glaucoma Diagnosis*

- In India, studies found that 93-94% of persons with OAG had not been diagnosed until time of survey, of which 1.5% and 3.3% were already blind bilaterally and unilaterally
- Even in developed nations, approximately one half of persons with glaucoma are unaware of their disease

### *Challenges*

- ACES found that among people diagnosed with glaucoma, 50% never had an eye exam & only 16% had ever visited eye doctor
- Other studies identified reasons why people with vision problems do not seek eye care ? lack of funds, time constraints, inability to leave family and work responsibilities, need for escorts, fear etc.,

## Predictors of and Barriers Associated with Poor Follow-up

- Case-control study to determine independent predictors of poor glaucoma follow-up with particular interest in whether severity of glaucoma, transportation-related access to clinic, and financial ability were predictive of poor follow-up
- We then evaluated patient reported reasons for failure to attend follow-up visits

## Methods

- One-to-one matched case-control study enrolled 300 established glaucoma patients
- We defined cases (poor follow-up) and controls (good follow-up) based on number of, and maximum interval between, glaucoma follow-up visits attended in preceding year
- We collected data by oral questionnaire and used stepwise multivariate logistic regression to calculate odds ratios for poor follow-up

## Results

- Adjusting for age and gender, independent predictors of poor follow-up
  - lacking formal education (Adj OR—4.13, 1.44-11.90)
  - not using prescribed glaucoma medications (Adj OR—54 2.17, 1.06-4.43)
  - believing follow-up is less important if one uses glaucoma medications and has no noticeable visual changes (Adj. OR—10.59, 3.74-29.97)
- Age, gender, and disease severity were not significant predictors
- Most prevalent barriers to follow-up were believing there was no problem with one's eyes (44.4%) and lacking escorts (19.7%)

## Conclusion

- Knowing predictors of poor follow-up can help identify patients needing individualized strategies to improve follow-up
- Since believing one's eyes are problem-free and lacking escorts are significant barriers to follow-up - novel strategies in patient education (e.g., intensive counseling, audiovisual aides, and patient support groups) and escort provision may improve longitudinal glaucoma follow-up

Thank you

