

Both patient demographics could benefit from better education about glaucoma.

BY VITAL P. COSTA, MD



Brazil is a country of contrasts. Only 20% of 180 million Brazilians have access to insurance-paid/private health care. The remaining 80%, especially those living in rural areas, depend on the public health system to be assisted. Unfortunately, the public health system is not managing to detect glaucoma in its early stages.

According to a study performed by researchers at the University of Campinas in Brazil, which typically examines poor patients from rural areas, 52% of these individuals were unilaterally blind and 33% were bilaterally blind from glaucoma upon their initial examination at the Glaucoma Service. 1 Recently, the Brazilian Glaucoma Society conducted a national survey that included 2,000 Brazilians from throughout the country. Of those surveyed, 36% had never been examined by an ophthalmologist.

RURAL AREAS

In rural Brazil, access to a public hospital is difficult. The mean distance between the University of Campinas and patients' homes is 122 km. Patients rely on ambulances and buses that come once a week for transportation to Campinas, which is why 68% of patients do not return for follow-up visits after being diagnosed with glaucoma.1

Some communities are located far away from public hospitals in the semidesertic rural areas of the northeast or in tribes in the Amazon forest. This population depends on infrequent visits from general ophthalmologists, who spend 1 day per month examining those in need, or from volunteers from public hospitals who travel to these distant places to provide eye care.

The general population in the rural areas of the country is not adequately educated about glaucoma. In 1996, my colleagues and I interviewed 100 patients at the Glaucoma Service of University of Campinas. Thirty percent of them did not know they had the disease, 53% did not know what glaucoma was, 35% did not know that glaucoma could cause blindness, and 94% did not know why visual field examinations were performed.² For these patients, the cost of treatment is extremely high. Twenty-one percent indicated that they did not adhere to prescribed treatment due to the expense of the medications. In fact, the mean cost of treatment for glaucoma patients was equivalent to 16% of their family income.^{3,4} Even with the arrival of new antiglaucoma medications, the number of glaucoma surgeries performed is still high in the public hospitals for economic reasons.

Despite these difficulties, patients from a rural area monitored in a public hospital are gentle and humble, and they rarely complain, even if they have to wait for 2 to 3 hours to be seen by a resident. Patients frequently bestow a wide variety of gifts on doctors to express appreciation for their care. Communication is difficult due to education level. and patients have trouble understanding the instructions they receive from doctors. Efforts at the public hospitals are directed toward improving education about glaucoma for patients while simultaneously encouraging them to care for themselves properly.⁵

URBAN AREA

Private patients in urban areas of Brazil have generally searched the Internet for information on the latest advances in glaucoma treatment. The same survey conducted by the Brazilian Glaucoma Society indicated that 40% of the individuals thought glaucoma-induced blindness could be reversed and that 46% believed glaucoma had a cure. Most pay private insurance companies for their health care. The



- · Only 20% of the Brazilian population has access to insurance-paid/private health care. The remaining 80% depends on the public health system.
- People in rural areas live far away from public hospitals, depend on public transportation, and are poorly educated about eye health and glaucoma.
- · Most people in urban centers pay for private insurance, have searched the Internet for information on glaucoma, and have access to treatment.

number of ophthalmologists who practice in urban areas is significantly higher than in rural areas, which facilitates urban patients' access to glaucoma diagnosis and treatment. The volume of glaucoma surgeries has decreased significantly due to the availability of new, more efficacious medications. Unlike for rural patients, the cost of treatment does not represent a limiting factor for private patients.

On the other hand, private patients in Brazil are demanding. They expect attention and time from their doctors. Patients not only wish to discuss their glaucoma but also their lives, families, and careers. Based on my experience, private patients expect at least 20 to 30 minutes with their ophthalmologist, and they do not appreciate being seen by assistants or fellows.

CONCLUSION

Glaucoma remains an important cause of blindness in Brazil. Although the level of care in rural and urban areas differs significantly, both populations would benefit from better education about the disease. Patients in rural areas, in particular, deserve greater attention, including measures to reduce the cost of treatment and to facilitate easier access to eye care.

- 1. Gullo RM, Costa VP, Bernardi L, Kara-José N. Condições visuais de pacientes glaucomatosos em um Hospital Universitário. *Ara Bras Oftalmol*. 1996:59:147–150.
- 2. Costa VP, Spaeth GL, Smith M, et al. What do patients know about glaucoma? [in Portuguese] Arq Bras Oftalmol. 2006;69(6):923-927.
- 3. Magacho L, Vasconcelos JP, Temporini ER, et al. Tratamento clínico do glaucoma em um hospital universitário: custo mensal e impacto na renda familiar. *Ara Bras Oftalmol*. 2002:65:127–134.
- 4. Sakata K, Sakata LM, Sakata LM, et al. Prevalence of glaucoma in a South Brazilian population: Projeto Glaucoma. *Invest Ophthalmol Vis Sci.* 2007;48:4974–4979.
- 5. Cintra FA, Costa VP, Tonussi JAG, Kara-José N. Avaliação de programa educativo para portadores de glaucoma. *Rev Saúde Pública*. 1998:32:172-177.

Section Editor Alan Robin, MD

- associate professor of ophthalmology, Wilmer Eye Institute, Johns Hopkins University, Baltimore
- associate professor of international health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore
- professor, University of Maryland
- adjunct professor, University of Michigan
- (410) 377-2422; arobin@glaucomaexpert.com

Vital P. Costa, MD

- director, Glaucoma Service, and professor of ophthalmology, University of Campinas, Brazil
- vp.costa@uol.com.br