

Starting a Glaucoma Fellowship in Pakistan: A Critical Step toward Enhancing Eye Care

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The prevalence of glaucoma in Pakistan, as in many developing countries, poses a significant challenge to the healthcare system. Globally, glaucoma is the second leading cause of blindness, affecting millions, often progressing without symptoms until irreversible vision loss occurs.¹ Global and local glaucoma prevalence is depicted in figure 1.²

As of 2024, glaucoma has become an increasing public health concern in Pakistan, particularly primary open-angle glaucoma, which is on the rise, affecting a large proportion of the elderly population. According to an estimate, the age-standardized prevalence of glaucoma in Pakistan is approximately 106,700.88 people, with the number expected to increase due to the aging population and lack of early detection programs.² Between 1990 and 2017, glaucoma cases have steadily risen, contributing to a growing burden of eye disease.³ This situation highlights the urgent need for improved public awareness, early diagnosis, and treatment. Many patients, even those with a positive family history, remain unaware of their condition, leading to delayed treatment.⁴ Among this situation of unawareness, there are several barriers that hinder patients from accessing appropriate care, including geographic, socioeconomic, cultural, and educational factors, as well as inadequate facilities, medications, and surgical options.

Despite global advances in ophthalmology, Pakistan faces a shortage of specialists trained specifically in glaucoma management. Most ophthalmologists focus on cataract surgeries, general eye conditions, and refractive errors, lacking the specialized expertise needed for the complex diagnosis of glaucoma, monitoring, and treatment. The current

training program, while providing sufficient exposure to glaucoma, does not adequately equip individuals to manage more complex and challenging cases. The Pakistan Glaucoma Association, under the leadership of renowned glaucoma specialists, has been making significant strides to address this challenge. In this effort, they have developed glaucoma management guidelines, an important step in the right direction. However, managing glaucoma requires proficiency in various diagnostic tools, such as visual field testing, optic nerve imaging, and intraocular pressure monitoring, along with surgical interventions like trabeculectomy and minimally invasive glaucoma surgeries (MIGS). This level of expertise demands in-depth, hands-on experience that goes beyond general ophthalmology training. Furthermore, the scarcity of ophthalmologists in Pakistan which is estimated at 14.8 per million population in 2015 aggravates the situation.⁵ Thus, there remains a pressing need to establish a formal ‘Glaucoma Fellowship Program’ to enhance eye care and reduce blindness.

Meanwhile, the British Pakistan Ophthalmic Society launched a virtual Adult Glaucoma Fellowship Program, which has been successful in providing advanced diagnostic and treatment techniques. Although the program offers live feedback on video recordings of common glaucoma surgeries, such as trabeculectomy and tube procedures, the lack of hands-on training underscores the need for a dedicated Glaucoma Fellowship Program within Pakistan. Such a program could bridge the gap between the increasing demand for specialists and the overwhelming burden of glaucoma. In addition to enhancing clinical practice, a fellowship program would also promote research in glaucoma, an underdeveloped field in Pakistan. Advancing both clinical care and research would elevate the country’s standing in global ophthalmology.

The College of Physicians and Surgeons Pakistan has already made significant progress in launching

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glaucoma fellowship training in the mid-20th century. Today, U.S. glaucoma fellowships are highly competitive, lasting around one year and overseen by the American Society of Ophthalmic Glaucoma Specialists.

As glaucoma fellowship programs evolve in these countries, Pakistan must act swiftly to establish its own program to address the growing disease burden. Developing specialized training is essential to make a lasting impact on the nation's glaucoma management and ultimately reduce preventable blindness.

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