

ORIGINAL ARTICLE

Intermediate-Term Cataract Surgery Outcomes from Rural Provinces in Lao People's Democratic Republic

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ABSTRACT

Purpose: Limited data are available about cataract surgery outcomes from developing regions in South-East Asia, but are necessary to monitor the impact of ongoing program delivery as outlined in the World Health Organization Vision 2020 directives.

Methods: We conducted a retrospective cohort study of 488 eyes of 449 patients who had undergone cataract surgery in 2011 in Luang Prabang and Xayaboury provinces of northwestern Lao People's Democratic Republic (Lao PDR). The study included 400 eyes of 361 subjects (80.4% of the target population). The main outcomes were presenting and pinhole visual acuity (VA).

Results: Subjects' mean age was 68 years (standard deviation 12.1 years); 52.6% were women. Preoperative presenting VA in the operated eye was <6/60 in all patients where presenting VA data was available (76.4%). Presenting VA in the operated eye was >6/18 in 185/400 eyes (46.3%, 95% confidence interval, CI, 41.4–51.2%), <6/18–6/60 in 177/400 (44.3%, 95% CI 39.4–49.2%) and <6/60 in 38/400 (9.5%, 95% CI 6.6–12.4%). VA improved two or more lines in 61/400 eyes (15.3%, 95% CI 11.7–18.8%) with pinhole. Relative afferent pupillary defect was present in 13/400 eyes (3.3%, 95% CI 1.5–5.0%).

Conclusion: Presenting postoperative VA did not meet the World Health Organization criteria for good outcomes. Further study is required to determine specific factors contributing to adverse outcomes in this population.

Keywords: Blindness, cataract surgery, Lao PDR, rural, visual outcome

INTRODUCTION

Cataract is the leading cause of blindness worldwide, accounting for almost 20 million blind individuals.¹ The burden of disease is predominantly distributed within the developing world with 90% of the world's visually impaired residing in low- and middle-income countries. Preventable or curable ocular diseases, including cataract, contribute less to the proportion of blindness in economically developed countries, due largely to high surgical rates. Although cataract is

responsible for only 12% of blindness in Australia,² this figure is estimated to exceed 65% in Lao People's Democratic Republic (Lao PDR).³

Lao PDR is a densely forested and mountainous, multiethnic Southeast Asian country with a population of approximately 6.6 million. Gross national income is approximately 25% of the regional average, and the country has the highest maternal mortality ratios in the World Health Organization (WHO) Western Pacific Region.^{4,5} The majority of the population lives in rural and regional areas,⁶ and the

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